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François Minet

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ORIGINAL LECTURES.

LUPUS ERYTHEMATOSUS.

By JONATHAN HUTCHINSON, F.R.C.S.,
Senior Surgeon to the London Hospital and to the Hospital for Diseases of the Skin, and Surgeon to the Moorfields Ophthalmic Hospital.

LECTURE I.

Definition of the term Lupus—Nature of the Disease and its Alliances—Peculiar Features of the Erythematous Form—Its Varieties—Less connected with Scrofula than the Common Form—Early Description by Hebra, Casenave, etc.—Published Portraits—Cases of Extreme Capillary Dilatation resembling Nævus—These Cases most Common in Early Life—Mr. Macarthy's Two Cases—Case of Lupus-Nævus in an Infant (Mr. Higgens' Case)—The New Sydenham Society Portrait—Details of the Case, with Important Facts as to Influence of Temperature and State of Circulation.

GENTLEMEN,—The name Lupus is applied to a chronic form of inflammation of the skin which has certain peculiarities, and which occurs in persons of certain proclivities. It is allied, on the one hand to scrofula, on the other to psoriasis, and it partakes also, in some degree and especially in some cases, of the nature of the inflammation which produces chilblains. In different persons who are the subjects of lupus we recognise differing degrees of tendency to one or the other of these three types of morbid process, and hence it results that lupus is not always exactly the same. Some forms are so strongly strumous that it is difficult to separate them from scrofulous ulceration of the skin; others are very close to psoriasis; while a third group, in their local position, in their susceptibility to the influence of weather, and also in the nature of the local disease, show an essential resemblance to what we know as chilblains. With such a wide range of liability to difference it is essential to state clearly what the peculiar features are which we regard as essential to lupus. First, let me say on this point that some of the forms of serpiginous syphilis so closely resemble the Lupus process that, excepting in that they are produced by a different cause, and curable by a different treatment, it is quite impossible to separate them. Unless you allow me to introduce into my definition a reference to cause, I should be quite baffled in an attempt to define lupus in any way which should exclude them. It is difficult enough with the patient before us to say which is which, but quite impossible in a mere verbal description. Beginning, then, by excluding everything which is due to syphilis, I will say that the name lupus is applicable to a chronic inflammation of the skin, attended by a cell-growth in the deeper layers, which spreads slowly at its edge, and thus involves adjacent parts, which inevitably disorganises the parts attacked, and always, after cure, leaves a scar. It is by this tendency to leave a scar that we separate lupus from psoriasis, for after the cure of the latter the skin is left quite sound. Now, the lupus-process is in part one of new growth, and in part one of inflammation, and it varies, no doubt not alone in reference to the temperament of the patient, but also in respect to the precise tissue in which it originates. The alveoli of the corium are its usual site, but in different cases the sebaceous glands, the papillæ, and the vascular system may be disproportionately involved. There are forms of common inflammation in which paralytic dilatation of capillaries is the chief feature, and others in which cell-multiplication is greatly in excess of the increase in supply of blood, and we recognise precisely the same modifications of the lupus-process.(a)

Now, I propose, in to-day's lecture, to ask your attention to a form of lupus in which the tendency to vascular dilatation is so conspicuously in excess of the other factors in the inflammatory process, that a special name has been given to it. Under the name Lupus erythematosus, observers have denoted a malady closely allied to lupus, indeed, in many cases absolutely identical with it, but of which the chief feature is an erythematous patch. This patch proves its nature by its long persistence, the slow spreading at its edge, and by its always leaving a scar when the morbid process ceases. There is exceedingly little evidence of cell-growth, at any rate in many cases, but I must ask you to believe that there is always some; it is not that one part of the lupus-process is wholly omitted, but rather that another takes the lead. In some instances the vascular dilatation is extreme, and a condition closely resembling nævus is produced, whilst in a few a tendency to rupture of vessels is observed, and a Lupus erythematosus hæmorrhagicus is constituted. These extreme forms are rarely seen excepting in young children. The more common forms of erythematous lupus are met with, however, not in children, but in young or middle-aged adults, and are attended by much less peculiar conditions. Usually the disease begins on the nose, and a red, slightly roughened patch is produced on the middle of that organ; next, two symmetrical red patches are seen on the cheeks (seldom continuous at first, with that on the nose), and after a time patches occur in both ears. The tendency to symmetry is very remarkable, and I must beg your especial attention to the fact that the patches are independent, and not continuous. Although erythematous lupus spreads at its edge, and is serpiginous, just like other forms of lupus, yet it differs from all other forms in its marked tendency to symmetrical development. Next to the ears come the backs of the two hands, and it is very rare indeed to see one hand alone, or one ear alone, affected. Often the cheeks are affected before the nose, and not unfrequently the ears before either, but usually the order of production is what I have stated. When the patches on the cheeks have become joined to that on the nose, a form is produced like that of a body with wings, which has been compared to a bat's wings or a butterfly.

There are other minor features of peculiarity by which we recognise this disease: the patches are usually abruptly margined, more red at their edges than in the middle, rough, dry, slightly scaly, and seldom attended by any crust; often a great number of little patches occur in a cluster, and some of them become confluent, and when this is the case the little patches, which are more or less round, are depressed in the centre and slightly raised at their edges, being what is known as disc-shaped. These discs are reckoned by some authorities as the characteristic feature of the disease, but they are by no means always present, nor is it always easy to distinguish them from those of common lupus. On some parts, and in certain cases, the surface of the patch shows a great number of little pits, which are the orifices of sebaceous glands made conspicuous by the shrivelling up of the surrounding skin, and by the presence (often) of little dried plugs of sebaceous matter. These conditions are most often seen on the nose, but frequently on the cheeks also, and they probably occur to those whose skins are naturally somewhat coarse, and whose sebaceous glands are large and sluggish. In most cases these two conditions of roughness with pitting and erythema are present together, but in a few there is scarcely any erythema. To these latter the term Lupus sebaceus was formerly given by some. This term might, perhaps, be retained for convenience, but you must remember that the two are really parts of the same morbid process, which receives minor modifications in connexion with the age and temperament of the patient.

Such, then, are the general features of erythematous lupus. It is a disease usually easy to diagnose if you know it. Those not familiar with its appearance would probably mistake it for chronic eczema, for a slight form of psoriasis, or for common lupus. From eczema the history usually distinguishes it at once, for your patient will probably tell you that he has had the patch exactly in its present position and state, getting little either better or worse, for years. Eczema, on the contrary, is either cured or spreads quickly. The peculiar positions affected, the forms produced, are facts also of great value in diagnosis. But above all you must look for the scars. If you find that it is spreading at the edge and healing with a thin but definite scar in the centre, your diagnosis is complete, for neither eczema nor psoriasis(b) ever do this. I am not much concerned to establish the diagnosis from common lupus. In most cases it is easy enough; and when it is not, then my assertion would be that

(a) There is also a rare form of cancer of the skin, usually secondary to cancer of the breast, in which the capillary dilatation is a very conspicuous phenomenon.

(b) Perhaps an exception should be made for certain very rare forms of psoriasis.

it is impossible, and the attempt irrational, for the two run into each other. The presence of tubercules or of thick masses of new growth, the tendency to ulcerate and to scab, and the non-symmetrical arrangement, all denote common lupus in an easily definite manner. Whatever is symmetrical, and affects at once, with separate patches, ears, cheeks, and nose, is probably of the erythematous variety.

You will have gathered from what I have said as to the absence of tendency to ulceration and to inflammatory swelling, that lupus erythematosus is not, in any marked degree, scrofulous, for these features are characteristic of struma wherever we meet with it. There can be no doubt that this form of lupus is more nearly connected with psoriasis (or the dartrous diathesis) than it is with scrofula. We may infer that from its symmetry; and the inference is, as I shall have to show in the sequel, sometimes borne out by the occurrence of a general scaly eruption in conjunction with patches of lupus on the face.

The connexion of lupus erythematosus with the same tendencies which evoke chilblains is illustrated by the fact that the parts affected are, for the most part, those which suffer most from exposure to cold—for instance, the nose, ears, and hands. Erythematous lupus is very rarely seen in those parts of the surface which are constantly protected by clothes. It is also always made worse by exposure to wind and cold, and very often there is the history of actual chilblains having occurred on the ears. The conditions are, however, although allied, not identical, and exposure to heat is as injurious to these lupus cases as is cold. Sun-burn of the nose is a common exciting cause.

Although lupus erythematosus is a somewhat rare disease, you have fortunately had, during the last year, many opportunities for examining its peculiarities. I have shown you repeatedly its symmetry, its resemblance to dry eczema, its differences as to vascularity in different cases, its proneness to attack the ears, and its long persistence. On the present occasion I propose to bring before you the notes of many cases, for it is hopeless to attempt to produce an accurate picture of the malady without constant reference to written records. Some of the more important cases I shall read to you in full detail, but of the majority I shall give only short abstracts. These cases will classify themselves in natural division somewhat as follows:—First, the more common type of the disease, in which erythema is the most conspicuous feature; secondly, those in which erythema is almost absent, and the diseased condition of the sebaceous glands is the most obvious thing (for these I shall retain the name Lupus sebaceus); thirdly, cases in which there is a close approach to common lupus; fourthly, cases in which the disease simulates nævus, and is possibly hæmorrhagic; and, fifthly, cases which show affinities with common acne, with chilblains, with psoriasis, and with eczema. This long enumeration may appear somewhat alarming, but if we get hold of the proper clue the subject is really not so complex as it looks. Be that as it may, however, we shall gain nothing by an arbitrary simplification, and it would be a very false policy were I to aim at lightening your labours by any attempt in that direction. We must follow clinical facts into all their details. It would be of no use whatever to tell you that lupus erythematosus consists essentially in the paralytic dilatation of bloodvessels, for that is only one part of the process which varies in degree in different cases; nor would it do to separate it utterly from common lupus by asserting that the latter alone presents us with cell-growth, for although cell-growth is comparatively small, it is certainly present in degree; nor, lastly, can we properly fix our attention exclusively on the diseased states of the sebaceous glands, for these, although common, are not invariable, and occur only in certain regions. We must not restrict ourselves, but rather try to get a view of the whole matter and recognise the morbid process in all its various relationships.

That we may be the better able to deal justly with our facts, I will, before going further, give you a brief summary of the opinions of authors. We shall find in the different names which have been proposed for the malady good illustrations of its chief features and also of the fact that these are not always the same.

More than thirty years ago it fell to the lot of Hebra to notice that "certain patients, otherwise healthy, showed sharply defined patches of a deep red colour on the face, especially on the cheeks, nose, and chin." He observed that on these patches the ducts of the sebaceous glands were very conspicuous, being dilated and plugged by their secretion. He made combined reference to the two chief features by naming the malady "*seborrhœa congestiva*." The term seborrhœa was unfortunate, because there is seldom any flux of the secretion, which latter is rather too much inspissated. The name also failed to recognise the alliance of the malady with lupus. Six years later, in 1851, M. Cazenave, in Paris, described the same malady in its more definitely erythematous forms and named it Lupus erythematosus—a name which Hebra, with that candour which marks his character, at once adopted. In his "Atlas," and in his work on Skin Disease, Hebra employs this term, though he attempts to show that the disease is, after all, one in which the sebaceous glands take the almost exclusive share. This opinion was induced, I cannot but believe, by restricting attention to too few facts. I am not aware that the late Mr. Startin ever wrote upon the subject, but I well recollect being taught by him to distinguish certain forms of this disease (those, no doubt, which first attracted Hebra's attention) under the name of "*lupus sebaceus*."

In the "Atlas of Photographic Illustrations," published in Paris from the St. Louis Hospital, I find a portrait of very extensive lupus erythematosus of the nose, cheeks, and forehead, with the designation "Scrofulide erythémateuse." The letterpress accompanying it, which is only meagre, appears to suggest this term for all cases in preference to that in general use, but it certainly does nothing to justify it. The malady occurs sometimes to the scrofulous, but not exclusively to them, and the name omits reference to the sebaceous glands. It would be much to be regretted that any name should be used which should imply a closer connexion with scrofula than is done by that of lupus. We all acknowledge that the latter term involves an association with scrofula in greater or less degree. I show you the portrait to which I have referred. It is a very valuable one, since it gives a life-like representation of a very well characterised and extensive example of the malady. The patient is, I think, a young woman, and you will see that her cheeks, nose, chin, temples, and forehead are almost covered with abruptly margined erythematous patches, and that these are placed with almost exact symmetry.

I show you also the two portraits published in Hebra's "Atlas." One of these represents the face of a lad with large bat's-wing patches on cheeks and nose. The sebaceous glands are very conspicuously affected, and the surface is roughened over by their open orifices, and the little plugs of dry discoloured secretion which project from them. There is but little erythema. The other is that of a woman of middle age. It would be very difficult from this portrait to distinguish the disease from common lupus. On the lips are some discs, the edges of which are a good deal thickened by a growth which appears to be exactly like the "apple-jelly" of the latter malady. Indeed, I am inclined to claim this portrait as proof that the erythematous form and the common form may occur to the same patient.

One of the two portraits given by the New Sydenham Society is that of a lad whose face shows large symmetrical patches like those in the first of Hebra's, with the difference that they are not sebaceous, but rather erythematous only. In this point it resembles the Paris portrait, but it differs from the latter in that the patch is almost single and appears to have been produced by spreading at the edge rather than by coalescence of many smaller ones. The other New Sydenham portrait shows the hands of a boy whose case I shall detail to you at the end of our lecture. It is an example of the most erythematous form of all; indeed, it is all but hæmorrhagic.

I shall conclude this lecture by referring to some of the very rarest forms of the disease, but those in which the vascular element is developed in the most severe degree.

In these for the most part all evidence of implication of sebaceous glands is absent, and the dilatation of capillaries takes place on such a large scale that it is difficult to distinguish the case from one of rapidly spreading nævus.

I may here observe also that the special type of lupus erythematosus is determined to some extent by age. The more purely erythematous type occurs in early life almost exclusively, the sebaceous and less vascular in middle life. Most of the cases in which the extremities are affected, and almost all in which any tendency to bleeding is present, occur in childhood. Two very remarkable cases were shown me a few years ago by my colleague, Mr. Macarthy. A boy

and girl, brother and sister, one about five, the other eight, were the subjects of the most vascular form of lupus erythematosus. In both, the condition affected the cheeks, arms, trunk, and legs. In the girl, the younger, it was less severe than in her brother, and in her the ears were not as yet involved. The conditions had suggested the diagnosis of cicatrising nævus, but against such an opinion is the fact, amongst others, that in neither child did it begin until the age of three. In both children the cheeks and nose were patched over with dilated vessels, looking like a slight form of port-wine nævus, but interspersed with white streaks, which had resulted from scars. The scars were exceedingly superficial, but very positive. The skin of the nose was rendered thin, tight, and glossy by scarring.

A very curious example of erythema-lupus, in which the phenomena of that disease were mixed up with those of nævus, and in which an infant was its subject, came under my notice in October, 1871. I am indebted to Mr. Higgens, who at that time acted as Mr. Streatfeild's clinical assistant at Moorfields, for showing it to me and for allowing me to make notes of it.

Mr. Higgens' patient was a little girl named Alice Waring, aged two years and a half. Both sides of her forehead were covered with large white scars, at the margins of which was a narrow vascular border looking like a partially cured nævus. On different parts of the scar there were little tufts of dilated capillaries. At first sight I felt no doubt that the child had had large superficial nævi which had been cured by cauterisation. On the back of the child's neck was a large white scar, somewhat elevated by puffy tissue underneath, exactly like what results in nævus cured by external applications. On the child's abdomen there was a small vascular stain, unscarred, and in no respect differing from a nævus.

I will now mention the facts which make me say that this case partook of the characters of erythema-lupus, as well as of those of nævus. The patches on the forehead were very large indeed, and at every part presented the vascular border which I have described. Thus, they looked like serpiginous patches healing in the centre, and the mother stated that this was the case, and that they were still steadily creeping on. Then, too, the mother asserted that when the child was born no red marks were observed, and that it was not till a week after birth that some very small red spots were first observed on each temple. These spots spread very rapidly. The diseased skin inflamed spontaneously, became covered with scab, and afterwards resulted in scar. No escharotic treatment had ever been adopted excepting to one small patch. The patches, as they inflamed and healed in the middle, had continued to spead at their edges.

This history of spreading edges and spontaneous ulceration does not fit with what we know of ordinary nævus. The following fact is, however, yet more conclusive as to the difference. At the age of six weeks the child's upper lip and nose were attacked, and the resulting ulceration destroyed a considerable portion of the septum. At present the upper lip shows a thick vascular patch, only moderately florid and in parts seamed with scar. The nose is not sunken, but there is a large notch in the columna. At the age of four months the child's right cornea inflamed, and a large white scar has resulted. There appeared reason to believe that the child inherited a strumous diathesis from its father, who was, the mother said, a delicate man, liable to eruptions, etc. None of her children had enjoyed good health, and one of them had suffered for long from abscesses in the neck.

Our patient was a little, feeble-looking girl. I could find nothing in the history to support a suspicion of inherited syphilis.

Such cases as these show us lupus erythematosus in very close connexion with cicatrising nævus. By nævus, however, we understand a condition of dilatation of capillaries which is congenital. If the condition begins a year or two after birth, then it comes into a different category, but it is clear that the association is very close. The boy whose hands are figured in the New Sydenham Society's plate supplies us with facts which are of much interest in this association. You will see in the portrait that the hands are covered with deep purple vascular stains, looking much like the port-wine nævus, but with the difference that the disease is evidently more or less inflammatory, since it does not remain stationary like a nævus, but spreads and cicatrises. Interspersed amongst the red patches are white streaks which result from scars. We have also the further distinction from nævus that the disease did not commence till he was seven years old.

I will read you the particulars of this case, in most respects the most severe that I have ever seen:—

Arthur D. is a very fair-complexioned lad, aged fourteen. He is the subject of a very peculiar form of lupus erythematosus. It began when he was only seven years old, on his forearms. At this time he wore short sleeves, and when longer ones were supplied to him the inflammation left the forearms and passed down to the hands, where it still persists. Two years ago it attacked his face. It began on his feet about the same time as on his forearms, and it here attacked the heels, soles, and toes first. It was early spring when it began. Before that he had always been delicate and feeble, and could not eat well. He was liable to "bilious attacks." He rather dislikes fat. He is very thin, but has never had cough. There is no history of consumption in the family of either parent. The boy had not had any exanthem or other illness before the lupus appeared. He does not complain (subjectively) of cold weather—says, indeed, that it suits him quite as well as hot; but his mother informs me that in childhood his feet were always cold, and used to perspire so much that "his socks were always wet." At the age of three so much was this the case that he had wash-leather socks made, to wear under others, but still with the result that both were always damp. He is very liable to cold hands, and when chilled his hands become "like stones," and "dead cold." In childhood he had bad chilblains on the feet, but not on the hands; they never broke. He does not dislike cold weather, if it be not damp. He was once taken to the seaside, and there got worse, his face swelling up much. In hot weather the patches show more, becoming of a deeper red. On the forearms, no scars, or only very doubtful ones, have been left.

Present Condition of the Disease.—(*On Face.*)—His nose, cheeks, lips, and ears are congested, and with patches of dilated capillaries, presenting a condition which in an adult might be mistaken for the effects of drinking. On minute inspection, however, his nose is seen to be roughened by sebaceous accumulations (lupus sebaceus), and on his neck beneath the ears are patches which resemble dry eczema. The patches are symmetrically placed, and nowhere is there any positive lupus deposit or scar.

(*On Hands.*)—Here the disease is much more positively lupus. It affects the thumb and all the fingers and the borders of the hand, but leaves both the palms and the back surfaces free. On the thumb and fingers the dorsal and palmar aspects are both involved. They are deeply congested, and the patches of congestion are well margined and with slightly raised edges. They are rough on the surface from epidermic peeling, and here and there accumulations of horny epidermis have formed, but nowhere is there actual ulceration or pus-scab. There are numerous scars left where the inflammation has ceased. The tips of the fingers are pointed, their pulps having withered. His thumbs are stiff from the contraction and atrophy of all the soft tissues; no actual anchylosis of joints.

(*On the Feet.*)—The disease affects chiefly the edges of the sole, the whole of the heel, and most of the toes. The epidermis is thickened and split up, and there is violent congestion at the borders of the patches. His toes resemble his fingers. The backs of the feet and the middle of their soles are free.

He has never taken much medicine, but for two years he took cod-liver oil without any perceptible benefit. During the last year the disease has got much worse. His hands are so tender that he can scarcely use them for anything.

The following note refers to his condition on September 21, 1871:—

He has had an illness (fever with swollen glands) at home, and his eruption has almost disappeared from the face. It leaves a few lichen spots and numerous dilated venous capillaries in tufts. Thus, his nose and adjacent parts of cheeks are red like those of a spirit-drinker. His hair is falling, and he has some branny desquamation over the whole scalp. His hands are still tender and red. His mother tells me that tonics (quinine) given after his illness brought out the eruption and made his face red all over. His feet are still very prone to get damp and chilly.

After this date I lost sight of the boy, and could obtain no further information as to his progress.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON

THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

FIRST among the many new impressions which the mind of the observant physician receives, on landing in India, is a strong conviction that, before he can resume in his new home the practice of his profession with satisfaction to himself and advantage to his patients, he has a good deal to learn, and probably much more to unlearn. In this respect the path of him who has previously gone through the admirable course of special instruction afforded at Netley is greatly facilitated; but many go to India who have not enjoyed the advantage of a Netley training; and I have long thought that, to them, some practical hints from one who has encountered the difficulties with which they will have to contend when they enter upon Indian practice will be useful and acceptable. I also think that these notes may assist our students at the London Hospital, and at other hospitals at European ports where many persons suffering from Indian diseases are constantly under treatment.

When I joined the Indian Medical Department I had been somewhat unusually fortunate in having steadily worked in the hospitals and medical societies of London for twelve years. Still, the first thing that struck me, in practising in Bengal, was that DOUBT beset me on every side. As I advanced, I soon began to discover that my knowledge was more troublesome even than my ignorance; and that, while I had to learn how native patients ought to be dieted, when quinine can best be administered in remittents, and what are the uses of the chief drugs in the native materia medica, and to satisfy myself upon a hundred other questions of the greatest local importance, I found that I had before me the still more difficult task of divesting my mind of a host of strong opinions—such as that the medical man should never leave his house without his case of bleeding-lancets, that colchicum is "good" for rheumatism, that mercury is supreme in hepatic diseases, and that cathartics are therapeutic agents of almost Morisonian universality. In fact, I only avoided great mischief by the observance of strict moderation and the most vigilant caution.

My object is to give my readers, in the following notes, that information of which I then found myself most in need.

Except for illustration, I shall avoid the discussion of points with which every well-educated young English physician may be expected to be familiar: my wish being to enable my reader to bring his home knowledge up to the Indian standard.

Nothing can be farther from my design than to attempt to write an elaborate systematic treatise upon the diseases of India, or a work of deep literary research. Except where small collections of Indian statistics are needful, and reference has to be made to local publications which are scarcely accessible to the English physician, I shall merely record with extreme brevity the leading results of my own clinical experience, corrected and amplified by the observation of others. A few remarks upon

THE GENERAL CHARACTERS AND COMPARATIVE FREQUENCY OF THE DISEASES WHICH PRESENT THEMSELVES TO THE NOTICE OF THE PHYSICIAN IN BENGAL

will not be out of place here. On my first arrival in India, I was told by a medical man of great local experience, "All the diseases of England occur in abundance here." I, however, soon began to notice that this observation was not to be freely accepted. Several of the most prevalent diseases of England are either unknown or rare in India. Neither I nor any of my professional associates ever saw a case of Scarlatina in that country, although it is to be feared that this disease is beginning to be introduced there in troop-ships. I never treated a case of Typhus, nor heard of any except a few which one of my colleagues believed occurred in his practice in Calcutta. True Enteric Fever prevails from time to time in Calcutta, and it appears to be increasing in frequency; but it is happily not common. It probably did not exist in India fifty years ago. True Scirrhus is very rare, both in natives and Europeans. A good many cases of Medullary Cancer occur among natives of the poorer classes. A few years ago, Erysipelas, both in its idiopathic and traumatic forms, was almost absent from Calcutta. I never treated but one case of idiopathic facial Erysipelas in India. But, of late years, the traumatic form has become nearly as prevalent in all the hospitals of Calcutta as it is in those of London. The idiopathic disease appears to be upon the increase, and with it has appeared its congener, Puerperal Fever, previously a rare disease. Those conditions of the glands and joints which are commonly known as "Strumous" occasionally present themselves in poor natives, but they are by no means prevalent. I should have known very little of this class of diseases had I depended solely upon what I saw of it in Bengal.

The physician will not have practised long in India before he meets with a case of Phthisis; but the disease is comparatively rare in that country. Thus, unless a European takes latent tubercles with him, he can scarcely become the subject of tuberculosis in India, except under very exceptional circumstances. Natives suffer from Phthisis—but in this manner. In England a city hospital usually refuses to admit cases of Phthisis, or the whole of its beds would become filled with the consumptive, and yet every form of tubercular disease is constantly to be seen in the post-mortem room. In Calcutta, during the cold season, my native wards were generally nearly filled with cases of Phthisis; but, the disease being one of my specialities, I never refused a case; and I believe that the other physicians' wards and mine contained nearly all the phthisical poor in a city of 400,000 inhabitants. It has been said that, at home, the Englishman generally dies at the lungs; it is equally true of the native of India that his natural death is by some form of intestinal flux. The Anglo-Indian is not at all peculiarly liable to either pulmonary or intestinal disease; and, in retirement to his native land, he has, I think, a decided advantage over his contemporaries who have remained at home, in the fact that, while he is not remarkably subject to bronchitis, his bronchial tubes have been far seldomer visited by catarrh than theirs have, and have therefore a fair chance of retaining their integrity longer. Among the ill-fed and badly clothed poor of India, Chest Inflammations occur during the cold season and rains, which try them very severely; but cases of Pneumonia and Pleurisy are far less frequent in Bengal than in England. Among the poorest natives Pneumonia of the apex is rather common. Apart from Hepatic Abscess and Kirrhosis, Diseases of the Liver are not prevalent in India. Sallow complexions and jaundiced eyes are much more frequently seen in London than they are in Calcutta. Those forms of Dyspepsia which so frequently render life almost unendurable in England are nearly unknown in India. There, if food disagrees it may cause diarrhœa; but heartburn, gastric distress after meals, and dyspeptic hypochondriasis, very rarely occur. This is, I believe, due to the fact that, in England, the skin generally acts imperfectly for nine months in the year, and the consequence is chronic portal and hepatic and gastric congestion. India, too, has its portal congestions, but they are not generally chronic, the skin for nine months in the year doing its duty fully.

I believe that Hydatid Disease never originates in any part of India. Tape-worm is not uncommon among the lower class of Europeans. I think that all of my many patients acknowledged that they were eaters of raw meat. European ladies and children occasionally suffer from Lumbrici. Native children are very liable, and native women of the poorer class are so almost invariably the victims of these parasites that my house-physician was instructed to order infusion of quassia as the vehicle of every fluid medicine prescribed in the female ward.

True Acute Rheumatism occurs distinctly, but very rarely, in Bengal. I seldom met with more than one or two cases every year in Calcutta. In these, cardiac complication was liable to occur. Two of the cardiac cases proved fatal within my observation, one in a native lad in my own ward, the other in a European gentleman whom I visited with a friend. Chronic Cardiac Disease, of rheumatic origin, is very rarely produced in Bengal. I once attended an English civilian suffering from moderate symptoms of Gout. Subacute arthritic and muscular rheumatism is not uncommon, but is usually mild and transient. The so-called Chronic "Rheumatic" affections of natives will generally be found to be

of malarious origin, and may therefore be more properly termed "neuralgic," and be treated as such.

True Morbus Brightii is certainly far less common in Bengal than it is in London, still cases frequently occur in natives, especially the intemperate; and I can recall several fatal cases in officers who have lived carefully. As frequent attacks of intermittent fever induce Kirrhosis of the liver, malarious influence—and probably also excessive sweating—appears to be capable of setting up organic renal mischief. I have seen a good deal of simple albuminuria, both in young and old Indian officers, apparently unassociated with permanent disease of the kidneys. Such cases, well sifted, would probably range themselves under the head of Intermittent Albuminuria dependent upon spanæmia and serous hæmorrhage.

Croup is said to occur in the hills of India, but I think that this statement requires confirmation. I never saw or heard of it in Bengal, where, however, Diphtheria is not infrequent, and Spurious Croup is very prevalent during the rains.(a)

It will thus be seen that, although the popular idea at home is that Bengal is a very deadly climate, and although a military surgeon has recently (not without reason) called India "the worst country in the world," those Europeans who seek fortune in the East may fairly reckon upon a very singular immunity from some of the gravest diseases of Europe; while, as regards the deadliest maladies of the East, well-to-do Europeans are very little liable to Cholera, the premonitory diarrhœa of which may generally be checked. Whereas attacks of Fever, Dysentery, and Hepatic Abscess are almost always avertible when quinine and ipecacuanha are promptly and judiciously employed. Parturition is, doubtless, more generally easy (except among immature native girls) in India than in Europe; but the tendency to post-partum hæmorrhage, owing to spanæmia and deficient muscular tone, is certainly greater.(b)

Except the nobility and landed gentry of England, no class in the world are more "well-to-do" than European officers and gentlemen in India, or generally lead more temperate, regular, and moral lives. In old times, India gained most of its reputation as a deadly climate from the writings of ships' doctors, who observed disease as it occurred in sailors, debilitated by sea-scurvy, on the loose in Indian ports, at a time when mercury and bleeding were the leading therapeutic indications. Now mercury, leeches, and bleeding-lancets are almost unknown in India; and the consequence is, that although occasionally attacked with Malarious Fever and Dysentery, a large proportion of educated English gentlemen and ladies and well-conducted soldiers live very healthy lives in India, and retire with fairly preserved constitutions, which, with due care, bear the change to England not only with impunity, but with singular advantage.

Still, almost universal as temperance is among well-educated Europeans in India, it was probably the exception in all classes until of late; and even now, European roughs, and men who cannot devote their leisure either to books or to field sports, are generally drunkards. Now, as of old, many an English mother exclaims, "India killed my poor boy!" where, could she only know the truth, she would perceive that his mode of living was so intemperate and so grossly imprudent as to be incompatible with longevity in any climate.

On the darker side of the picture we have to observe the fact strongly defined by one of my professional friends in the axiom, "We, in India, work remarkably well, but we are nearly all a parcel of screws." That is to say, the European constitution deteriorates in India, as it does everywhere else, as life advances, but probably by different modes of decay and mal-nutrition. Thus the old Indian is generally either thinner or much fatter (both externally and internally) than he ought to be; and there must be something very wrong, constitutionally, with those multitudes of Europeans in India who cannot swallow a dose of Epsom salts or of Seidlitz-powder without imminent danger of Asiatic cholera,(c) or stand for five minutes in a draught without shivering and falling into a paroxysm of intermittent fever. It is not so much by violent attacks of disease that the constitutions of prudent Europeans in India become impaired, as by the insensible but constant operation of mischievous climatic influences, such as the marsh-poison and the violent transitions of temperature, producing undue cutaneous action alternating with portal and other venous congestion, from which no one can entirely escape. True, we drain our cities and cantonments, spend a large proportion of our income in obtaining healthy residences, and clothe ourselves all the year round in outer garments of flannel, knowing that our predecessors often got their death by dressing in linen. Still, these morbific influences are constantly at work, producing fatty, fibrotic, and amyloid changes in the viscera, and deteriorating the blood and loading it with waste material which the degenerating liver, kidneys, and other organs can no longer adequately eliminate. We, the Indian doctors of the old school, have, I think, done our part in investigating and contending with the outward maladies—fevers and fluxes—which abound in India; but our successors, who have learnt from us to regard pathology as physiology gone astray, may hope to effect very much more than we have achieved in the prevention and treatment of the constitutional diseases of India.

(To be continued.)

(a) It appears from the recent report of the Committee of the Royal Medico-Chirurgical Society on Membranous Croup and Diphtheria (*Lancet*, October 26, 1878) that we are not at present able to draw a clear line of distinction between these two (if they be two, and not one) morbid conditions. I have seen several cases of membranous laryngitis and a great deal of laryngeal diphtheria, but have never met with a case of true membranous croup. None of the above cases, except the many sufferers from false croup, which is a mere neurosis, had the characteristic brassy cough. Indeed, I do not see how such a cough can be produced where the upper air-passage is generally inflamed and lined with a tube of exudation matter.

(b) As I may not recur to this subject, I may mention that I usually gave ergot as soon as I was convinced that the head was about to pass.

(c) I never gave a dose of either of these medicines in India, and I never gave more than half the ordinary dose of any purgative at a time to a European, recommending the patient to repeat the dose if needful. The second dose was scarcely ever required.

AN ANOMALOUS CASE OF PEMPHIGUS TERMINATING FATALLY.

By ALFRED SANGSTER, M.B.,
Physician for Diseases of the Skin to Charing-cross Hospital.

THE following notes were extracted from a report of the case made by Dr. Robert Smith, Medical Registrar:—

G. H., a tailor by occupation, was admitted into Charing-cross Hospital on May 1, 1878. He was sixty-eight years of age, and had had good health up to the time of the onset of the malady for which he was admitted. According to his wife's statement, he had been a heavy drinker, having "been on the drink for days together." Apparently in connexion with these drinking bouts, he had recently had two epileptiform seizures.

His wife further supplied the following statements regarding his present illness. About six months ago he began to complain of red raised spots on the skin. They were at first "solid," and no larger than shirt-buttons, but soon became "watery," and attained the size of shillings. They itched intensely, and the patient gained relief by pricking them and evacuating their contents. Although each spot ran its course in from eight to ten days, fresh spots continued to make their appearance until the skin became covered with crusts, and the patient "looked like a leopard." Latterly the spots had coalesced. After the skin became affected a troublesome cough had been present, and for the last six weeks the legs had been swollen and red.

Various kinds of treatment had been pursued, but without relief; on the contrary, "salves had made the skin worse." It was ascertained that at one time the patient took iodide of potassium. On May 8 (when Dr. Pollock, under whom the case was admitted, kindly transferred it to me) the patient's expression was anxious, and there was some degree of wandering. Pulse hard and full; respirations 40. Urine pale, specific gravity 1018, acid; albumen one-twentieth; oxalate of lime crystals detected by the microscope. Appetite good. The condition of the skin was as follows:—A few blood-crusts, and papules surmounted by blood-crusts, were to be seen on the face and scalp. The skin over the sides of the neck was coarse-grained and infiltrated like prurigo-skin. Almost the entire surface of the trunk, excepting the upper part of the thorax—back and front—was red, and towards the lower part of the abdomen and in the loins, œdematous. The erythematous surface was covered with patches of coarse vesiculation, the pattern of which caused an appearance resembling Herpes. The vesicles, or rather the small bullæ, became confluent in many

places, and gave risé to large map-like, flattened, flaccid bullæ, filled with milky serum or more purulent contents. Here and there, bullæ had collapsed, leaving a thin dry incrustation. Where the bullæ had been ruptured, especially on the back, whole regions were excoriated, the surface being moist with exudation or covered with shreds of sodden epidermis as if the part had been scalded. Towards the shoulders the erythema was festooned in outline and devoid of vesicles or bullæ. On the buttocks, thighs, and arms the appearances corresponded with those just described—flattened, map-like bullæ, and excoriated surfaces. On the legs, forearms, and dorsal surfaces of the hands and feet there was more sound skin to be seen, with occasional flattened and isolated bullæ. There were also round and oval-shaped patches of yellowish skin, not raised, and differing but slightly in appearance from the surrounding normal surface. On sliding the finger over them, the epidermis, which had lost organic continuity with the structures below, readily became detached, disclosing the moist rete. The palms and soles presented none of these abnormal appearances. Ordered—℞. Liq. sod. arseniat., ℥vij.; tinct. cinch. flav., ʒj.; syrup. aurant. ℥xx.; aquæ, ad ʒj.—M., t. d. s.; after food. ℞. Liq. pbi. diacet. dil., ʒiv.; glycerin., ʒss.; aq. chlorof., ad ʒx.—M.; ft. lotio; the surface to be wrapped in linen moistened with the lotion.

May 9.—A few moist sounds to be heard towards the bases of the lungs. No evidence of fluid in any of the cavities. The fluid from the interior of the blebs found to be very albuminous, showing under the microscope numerous white cells and moving point-like bodies (bacteria).

11th.—To be fed every four hours night and day: champagne, milk, beef-tea, etc. ℞. Zinci oxid., pulv. amyli, āā æquales partes; to be used instead of the lotion.

12th.—Fresh bullæ seen on legs and thighs; tremor, muttering.

15th.—Patient gradually sinking. An erysipelatous blush round right eye.

Blebs continued to come out. The older patches of disease showed flake-like crusts in many places, and the erysipelatous blush spread over the side of face, but no bullæ appeared on it.

The patient died on the 18th. The temperature ranged irregularly between 98·4° and 102° during the time he was under observation.

Necropsy, thirty-six hours after Death.—The body showed signs of decomposition, green discoloration of abdominal walls, and dusky lines mapping out the veins over upper part of thorax. The trunk and extremities were covered more or less with yellowish-brown incrustations, in appearance not unlike flaky pie-crust. The legs were œdematous. There was a depressed cicatrix to be seen on the anterior and upper part of the glans penis. No scars in groins. About a pint of serous fluid was found in the peritoneal cavity, but no inflammatory appearances were present. Both pleural cavities contained some fluid of a bright-red colour—the right cavity about twelve ounces, the left about nine ounces. The left lung showed old pleural adhesions; both lungs were emphysematous, and very œdematous on section. The heart weighed eleven ounces; the right ventricle was dilated, and the ventricular wall thin. Much fat was deposited on the heart externally, and the muscular substance itself showed fatty degeneration. There were patches of atheroma in the aorta, and the coronary arteries were also atheromatous. The endocardium and inner surface of the aorta showed post-mortem staining. The liver weighed three pounds eleven ounces and a half; it was pale, and the cut surface greasy. The kidneys weighed—left seven ounces, right six ounces. Both capsules were adherent. Microscopical examination of the kidneys showed the only marked change to be in the capsules, which were thickened. The spleen was small, weighing two ounces and a half. The capsule was thickened, but no other unusual appearance was seen. It is to be regretted that the stomach and intestines were not examined, the omission being due to the fact that this necropsy was performed rather hurriedly with several others the same afternoon.

Remarks.—Of late we have increased our knowledge materially with regard to the nature of bullous eruptions, so that, instead of being at once dismissed and treated as Pemphigus, they are now scrutinised with the view of determining whether they may not occur as accidents in other forms of acute inflammations of the skin, where the "type" more generally stops short of exudation between the Rete and the Stratum Corneum. Again, we have been shown lately that drug-poisoning may give rise to bullous eruptions. True, the eruption described by Mr. Hutchinson as due to iodide of potassium is made up of small bullæ, and more closely resembles the so-called Hydroa; but, if small-sized bullæ may be produced by iodide of potassium, may not larger bullæ be produced by other substances? The frequency of urticaria as produced by drugs is interesting in connexion with this point, especially as urticaria sometimes becomes bullous. The Acarus Scabiei has been known to cause a bullous eruption such as has been mistaken for Pemphigus, not only in children, in whom the mistake occurs tolerably often, but also in adults. Lastly, there are to be found in medical literature, reports of bullous eruptions, which appear to be due to blood-poisoning, such as the case reported by Sir G. Burrows, of the eruption produced in a butcher after a poisoned wound (*Medical Times and Gazette*, June 14, 1856). A few lines of his general description may be quoted:—"The external appearance of this eruption generally resembles that of acute Pemphigus, but not altogether, for we observe that in some parts, this vesicular eruption resembles the aggravated form of Herpes, the vesicles being small and congregated together with inflamed margins. In other parts the vesicles are larger and isolated, the eruption more closely resembling pemphigus. In other parts the surface appears blistered as by the action of boiling water." In connexion with this simultaneous appearance of herpetic-looking vesicles and bullæ on the skin, Cazenave says (*Gazette des Hopitaux*, October, 1850), in describing a general herpetic eruption which occurred in a girl—"The vesicles, instead of as heretofore enjoying a separate existence, became opaque and ran together, forming bullæ, giving the eruption the appearance of chronic pemphigus. It often happens, indeed, that by an insensible transition one of these eruptions is converted into the other. We have remarked this more than once in old men." Mr. Hutchinson ("Lectures on Clinical Surgery," vol. i., part i., page 61) gives a case combining some of the features of Herpes and Erythema multiforme with Pemphigus. Now, with regard to the case above reported, it certainly did not look like pemphigus, for the pseud-herpetic eruption formed its chief characteristic, and most of the bullæ were obviously formed by the confluence of the vesicles on the herpetic-looking patches. The flaky crusts and the abortive isolated bullæ on the legs suggested Pemphigus Foliaceus, but the appearances did not correspond to those described in that disease (whether, later on, if the patient had lived, they would have done so, may be open to question); still, if the history, imperfectly as it could be ascertained, be accepted, the case clearly commenced as a case of pemphigus. The continuous outbreak of small itching bullæ, extending over a long period of time, is a common history in pemphigus attacking old people with broken constitutions; and in fact is always the precursory condition in the almost uniformly fatal variety, Pemphigus Foliaceus. The pseud-herpetic eruption only simulated Herpes in the clustered arrangement of the vesicles and small bullæ: the latter were flaccid, their bases were irregular and zigzag in outline, and they rose from the surface in an inclined plane—conditions precisely opposite to what is seen in Herpes. The course of the eruption, so long as the patient was under observation, was not that of Herpes. No pain was ever complained of. In endeavouring to account for the pseud-herpetic eruption in this, and probably in some other cases that have been described, I would venture to suggest that it is an Erysipelas induced by the absorption of pus from the pemphigus bullæ. In support of this it may be mentioned that erysipelas often accompanies diseases of the skin, such as acute eczema, variola, lupus, where pus is pent up beneath crusts. The patient's general condition was such as frequently accompanies erysipelas, and he actually had a patch of erysipelas on the side of the face, although there were no vesicles or bullæ on the affected surface. The disease, then, might be summed up as pemphigus complicated secondarily with vesicular and bullous erysipelas. As regards the post-mortem appearances it may be stated, in connexion with the fatty liver, that the same condition is described as being almost constant in Pemphigus Foliaceus. Microscopical examination of the affected skin showed, besides the usual appearance of inflammation (cell infiltration, etc.), a plugged condition of the small vessels exactly similar to that seen in pyæmic viscera, and said to be due to the presence of

micrococci. The vessels were filled with hyaline or very faintly granular matter (in hæmatoxylin-stained preparations) of deep purple colour. Experience has shown that such matter resists the action of caustic potash, and that it is due to clumps or colonies of micrococci. Their presence on, or even in, the skin might be explained by the decomposition which was present. But this explanation is disposed of by the fact that they were *within* vessels, filling the latter, and confined to them. This shows that the micrococci were at one time circulating in the blood. The presence of micrococci might be due either to the erysipelas or to a general pyæmic state, whether primary and the cause of the eruption (which is improbable from the chronic course of the disease, but not impossible from its resemblance to Burrows' case), or a secondary pyæmia induced by septic changes occurring in the bullæ exposed to the atmosphere. The coats of the bloodvessels were also found to be enormously thickened, but whether or not due to post-mortem change could not be decided.

ON THE SURGICAL TREATMENT OF ANASARCA.

By H. ADOLPHUS WICKERS, L.R.C.P. Lond., M.R.C.S.,
Late House-Physician to Charing-cross Hospital.

THE treatment of anasarca, whether cardiac or renal in its origin, after ordinary therapeutic measures have failed, is in most instances very unsatisfactory. If the patient be let alone, after a time he gets water-logged and dies; incisions nearly always lead to sloughing; and other plans of treatment, such as drainage-tubes, etc., have proved scarcely less unsuccessful.

The following method has been in use for several months at Charing-cross Hospital, where it has been employed in some forty or fifty cases; it is readily carried out, gives great relief to the patient, and has never been followed by ulceration, sloughing, or inflammation:—

The legs having been well oiled, and a macintosh sheet placed under them, about twenty or thirty punctures are rapidly made in their sides with a stout needle or hare-lip pin; some sponges, which have been well wrung out in a saturated watery solution of salicylic acid, are now placed against the punctures, so as to absorb the fluid as it transudes; these sponges, as they become filled, are squeezed out, and again passed through a solution of salicylic acid before being replaced against the patient's skin. In this manner renewals may be required about every two or three hours; and four or five pints of fluid may be drained away during the first day, the whole process being possibly completed in four or five days, at the end of which time the punctures are usually healed. By the use of salicylic acid, decomposition of the dropsical fluid does not occur, the sponges are kept free from fetor, the skin is not irritated, and cutaneous inflammations of a low type are entirely prevented.

[The plan originally adopted by Dr. Silver was to rub well into the legs oil containing a small quantity of carbolic acid; but this was found irritating, and accordingly salicylic acid was introduced in the place of the more powerful antiseptic.]

BERLIN UNIVERSITY.—In the sitting of December 6 the Berlin House of Deputies agreed to the expenditure of 1,200,000 marks (£60,000) for the site of the new University Gynæcological Clinic.—*Deutsche Med. Woch.*, December 14.

THE LENGTH OF THE FŒTUS.—Dr. Delabout, of Rouen, has found out a rule for conveniently remembering the length of the fœtus according to its age, which, although only indicating the means, is applicable to the great bulk of cases. For the first six months of intra-uterine life the length at different ages is indicated in centimetres by the square of the numerical figure of the corresponding month. At the end of the first month the fœtus measures one centimetre; the second month, four; the third month, nine; the fourth month, sixteen; the fifth month, twenty-five; and the sixth month, thirty-six centimetres. For the three last months the increase is from four to five centimetres per month. So that at the seventh month it is forty centimetres; at the eighth month, forty-five; and at the ninth month, fifty centimetres.—*Lyon Méd.*, December 22.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

FOUR CASES OF AORTIC DISEASE.

(Under the care of Dr. SANSOM.)

[FOR the notes of the following group of cases we are indebted to Mr. Cæsar T. Hawkins, House-Physician.]

Case 1.—*Aortic Regurgitation—Cardiac Dyspnœa—Albuminuria.*

William H., cabman, aged sixty-three years, was admitted on November 4, 1878. He was then complaining of cough, dyspnœa, and occasional pain in chest. He stated that he was the only survivor of a family of thirteen, but did not know the causes of death of the others. In his younger days he was engaged as a labourer, but had been a cabdriver for the last thirty years. He had drunk very freely. At the age of twenty years he had a sore on his penis, which healed in about three months. At that time he had enlarged glands in the groin which did not suppurate. He has had since occasional sore throat, and has suffered much from rheumatism, especially from lumbago. His present illness commenced about three or four months before admission, with weakness in the legs, cough, and dyspnœa.

On admission, patient seemed to be a well-nourished man, but was anæmic. There was dyspnœa and orthopnœa. The skin was warm and dry; temperature normal. The tongue was broad and flabby, indented at the sides, and fissured transversely and longitudinally. His appetite was very bad, and he vomited both his food and medicine. Liver: The anterior border was rounded, and reached to the level of the umbilicus; it was painful on pressure. He had never suffered from jaundice or dropsy. Heart: Præcordial dulness normal. The apex-beat was felt with difficulty within the nipple line; at the aortic cartilage a blowing diastolic bruit of slight intensity could be heard. The first sound at the apex was dull and rather prolonged. Lungs: The duration of inspiration equalled that of expiration. There were mucous râles at the right and left bases. At the upper lobes, in front, the inspiratory sounds were coarse and harsh, accompanied by mucous râles. Urine contained about one-half albumen.

November 6.—Patient is slightly better, but the cough is very troublesome. The pulse is soft, jerking, and lacking force.

7th.—Breathing has improved, and he is able to sleep in a recumbent posture.

9th.—There is now extreme dyspnœa, expectoration is profuse, and there is also some diarrhœa.

18th.—Patient is now extremely restless, and debility is increasing.

20th.—Breathing is again easier, but the cough is troublesome, and the expectoration is muco-purulent. There is œdema of feet and legs.

25th.—Dyspnœa is great. There is insomnia and anorexia. The bowels remain fairly open.

27th.—Patient is much distressed, wanders in his conversation, and is at times uncontrollable.

28th.—Breathing is easier this morning; he had no sleep last night.

December 3.—This morning the sensorium is evidently becoming affected. Patient lies in a semi-conscious state, and does not readily answer when spoken to; the pulse is scarcely perceptible. Death took place at 8.15 p.m. No autopsy was permitted.

Case 2.—*Aortic Stenosis and Regurgitation—Dilatation and Hypertrophy of Left Ventricle.*

Ellen H., aged thirty-nine years, the wife of a sailor, was admitted on November 12, 1878. She stated that she had enjoyed good health until about twelve months ago, although prior to that she had suffered from palpitation from time to time. She had been laid up for about six weeks in the Liverpool Hospital, when she had severe pains in her joints and sweating, but did not think that she then had an attack of rheumatic fever. Her present illness had commenced

with a throbbing sensation along the middle of the chest in front, difficulty of breathing, and great debility. Lately she had not been able to sleep, in consequence of pain referred to the cardiac region. Her bowels were usually regular until about six weeks before admission. She had also suffered from cough and pains down the left arm to the finger-tips. There was no history of syphilis, and no evidence of intemperate habits. She had had one miscarriage.

On admission, patient seemed well-nourished; countenance rather distressed; face red and hot; skin of body moist and cool; temperature 99°. The pulse was soft, jerking, and intermittent, beating about 120 to the minute. There was visible pulsation of the carotids; the breathing was rapid, shallow, and somewhat spasmodic. The tongue was moist, red, and clean; the teeth were bad. The urine contained a trace of albumen. There was no œdema of feet or legs. Heart: The præcordial dulness extended from the midsternum to a point external to the nipple line. The apex-beat was about two inches below and external to the nipple. At the base a harsh, rough, systolic bruit was to be heard, conducted upwards under the clavicle. There was also a soft blowing diastolic bruit to be heard at the base. These murmurs were also distinct all over the cardiac area and in the axilla. Lungs: A few moist râles were to be heard at various points over the pulmonary area. On ophthalmoscopic examination retinal pulsation was manifest.

November 30.—Patient is suffering from great debility, insomnia, orthopnœa, and cardialgia.

December 5.—There is incessant retching and vomiting of food. Patient is becoming anæmic, and the expression of the face is careworn. The pulse becomes weaker and less in volume.

10th.—The symptoms remain the same, but are more marked. The apex-beat outside the nipple is heaving and weak; the face is pale and anæmic, and the urine is scanty.

11th.—Patient died to-day at 4.30 a.m. At the autopsy there was found to be extreme atheromatous degeneration of the aorta, with dilatation of the ascending portion. The aortic valves were thickened and everted. The left ventricle of the heart was dilated, and its walls were much thickened. The right side was a little dilated. The liver was slightly "nutmeg." The spleen and kidneys were venously congested. There was no œdema of the lower extremities.

Case 3.—Aortic Regurgitation and Obstruction—Dilated Aorta and Hypertrophy of Left Ventricle.

Mary Ann Y., aged thirty-nine years, married, was admitted on November 5, 1878. She had been twice previously an inmate of the hospital for similar symptoms, and had left each time relieved. There was no history of syphilis, rheumatism, or gout. Her family history was good. When admitted she was under the influence of drink, to which she had been addicted for the last twenty years.

On admission, patient seemed a well-nourished woman. She complained of pain in the chest and shortness of breath on exertion. She usually slept fairly well, although at times disturbed by a peculiar trembling at the chest. Her skin was moist and warm. The tongue was broad, flabby, indented at the sides, and covered with a brown coating. Her appetite was good, although before admission she had suffered from pain at the epigastrium after eating and drinking. Liver: The anterior edge seemed rounded, but this organ was otherwise normal. Heart: The præcordial dulness was greatly increased; its right border extended from the junction of the sixth rib with the sternum, obliquely upwards to the first intercostal space, about two inches from the sternum; its upper border extended from this latter point transversely downwards to the apex. The apex-beat was external to, and about two inches below, the nipple. At the aortic cartilage there was a double murmur, the systolic being conducted upwards under the clavicle, the diastolic being heard as low as the apex. At the apex there was a loud double murmur, heard also in the axilla. Pulsation with thrill was felt in the episternal notch and in both infraclavicular spaces. The double murmur could be heard distinctly at the inferior angle of the scapula, but at the level of the spine only a single rough murmur was audible. The systolic murmur at the apex does not seem to be conducted into the axilla, although it is heard there. Where the first-sound murmur is heard, there the second-sound murmur is also heard. Pulsation of the retinal vessels is manifest on ophthalmoscopic examination.

November 25.—Patient is better. She sleeps well, and complains of no pain.

26th.—She complains of occasional giddy feelings and of cold sweats.

December 3.—She has now some pain in the right side below the heart, and some cough.

13th.—She does not seem so well, and has pain at the centre of the chest and between the shoulders. She vomits her food and medicine, but has no feeling of sickness except after eating.

14th.—The vomiting continues. She has been ordered a mixture containing five minims of ipecacuanha wine and four minims of dilute hydrocyanic acid to be taken every other hour.

15th.—The vomiting and retching have ceased. No systolic murmur is heard at the back, except at the level of the spine, where a double murmur is audible. This can first be made out a little to the cardiac side of the anterior border of the axilla. No murmur exclusively mitral exists.

20th.—Patient still remains in the hospital, and is improving as upon former occasions.

Case 4.—Aortic Regurgitation and Obstruction.

George F., aged forty-two years, a labourer, was admitted on November 11, complaining of feeling a tightness of the chest, and dyspnœa, with swelling of the feet and legs. His family history was good. He joined the Marines when twenty years of age, and served for nine years. He was then invalided as suffering from "phthisis." After that he acted as postman for about six years, and then drank very freely of spirits. He had suffered from syphilis, but never had rheumatic fever. The illness of which he complained commenced about six weeks before applying to the hospital. He had then shortness of breath, cough, swelling of the feet and legs, giddiness on walking, and his urine was thick and scanty.

On admission, patient seemed a well-developed man. The muscles of the arms were flabby; his skin was waxy and pasty-looking, but warm and moist. Aspect of features somewhat morose. Heart: There was præcordial dulness from the right border of the sternum to the nipple line. The greatest impulse of the apex was about an inch and a half below the nipple. A blowing systolic bruit was well heard there and in the axilla. At the base there was a rough systolic bruit and a soft blowing diastolic bruit. The pulse was regular, hard, jerking, and wiry, beating 92 to the minute. Lungs: Inspiration on the left side in front was harsh to within half an inch below the nipple line, where the respiratory murmur was diminished. A like suppression was made out at the base on the opposite side, commencing at the same level. The respirations were about 38 to the minute. There was no albumen in the urine. On ophthalmoscopic examination retinal pulsation was found to be marked.

November 13.—Breathing is easier. Patient seeps fairly well, but wakes up with a start.

18th.—Cough is troublesome, and urine somewhat scanty.

22nd.—Breathing is laborious, and patient suffers from insomnia from cough. There is considerable expectoration.

25th.—Condition is improving. The expectoration is less abundant.

December 6.—Patient has had a bad night and complains of pain at the chest. His tongue is clean and his bowels are open.

9th.—He is not quite so well. The cough is troublesome and he has a feeling of tightness at the chest.

11th.—At the apex there can be heard a creaking sound somewhat musical in character, following the systole.

14th.—The cough is still trublesome, but patient expresses himself as feeling better on the whole. The murmurs at the base and apex remain the same.

20th.—Patient is now able to sleep and is comfortable in every respect. He has no pain and but little cough, and his appetite is good. He still remains in the hospital.

M. Littré.—This distinguished *savant*, in a note addressed to a friend, who has published it, states that he has been ill and in great suffering for several months past, and that he is confined to his room, and almost to his arm-chair, from which he can only rise with difficulty. "Nature," he says, "who has allowed me to exceed my seventy-seventh year, wills it thus."—*Union Méd.*, December 28.

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Medical Times and Gazette.

SATURDAY, JANUARY 4, 1879.

NEW REGULATIONS FOR THE ARMY MEDICAL DEPARTMENT.

The revised Regulations for the Medical Department of her Majesty's Army contain alterations which in most cases are but developments of the wise and thoughtful opinions of the late Sidney Herbert, expressed in the letter of 1858, which explained the Regulations now superseded. "The new" only work out more fully the suggestions of the old instructions in matters of hygiene, and the distribution of professional work; but there are certain alterations which were not contemplated twenty years ago, and they deserve to be noticed. The chief departures from the old lines are due to the abolition of the regimental system, and to the introduction of the civilian element into military medicine. In the explanatory letter of 1858, Sidney Herbert wrote:—"The change next in importance (to Army hygiene), which we have introduced, regards the organisation and administration of general hospitals. In all our wars, general hospitals, wherever formed, have been unsuccessfully administered. The whole hospital system of the British Army is essentially regimental—a system which it is most important to preserve, but which ought not to exclude every other, inasmuch as it is capable of adapting itself to the hospital requirements of an army in the field, when, as invariably happens before long, the regimental hospitals alone prove insufficient for the number of sick." Unification has destroyed the regimental system, and the requirements of an army in the field have acquired increased importance. A section of the new Regulations is therefore occupied with the arrangement of hospitals and the duties of medical officers on "active service," and also with the distribution of the new body which unification has called into existence—"the Army Hospital Corps," destined to serve under the Medical Department. These changes we presume to be the absolute necessities of progress in the art of war, and, as we have already discussed them in former articles, we pass on to consider the points in the "New Regulations" which affect the medical treatment of the soldier in time of peace. Here we observe the same principle at work. In war time the wounded are moved from the dressing stations to temporary, and then to general, hospitals; and in peaceful times the sick will be removed from barracks altogether, and conveyed to station hospitals. Regiments will no longer be encumbered with separate hospital establishments on an expensive scale. Trifling cases will be treated in a barrack inspection-room; and we hold this to be a wise and economical proceeding, although perhaps very objectionable in the eyes of martinet colonels and smart sergeants-major. We are not sure that the medical officer "doing duty with troops" will quite like the change. No longer king in a regimental hospital, he will rather resemble a general practitioner's assistant, on his hurried rounds dropping into barrack-rooms, prescribing here and there for a boil or a black eye, recommending light duty for a man with a bilious headache, taking out troublesome teeth, and directing all serious cases to be removed to the station hospital, where they will be under the medical charge of somebody else. We confess, however, we are glad to see that the old dogma of "at duty or in hospital" has got its death-blow. The apparent solicitude for the soldier's health which it expressed was mainly due to the dislike entertained by the old school of combatant officers to any interference with the traditional pipe-clayed stiffness of the regimental system, which required that everything should be banished from the barrack-room that interfered with the omnipotence of military command. Uniformity, not common sense, was at the bottom of the cry of "at duty or in hospital"; and that idea still lingers in the military mind, for even now the best shot in England would not be allowed to shoot in the ranks of the Army if he could only shoot in spectacles. The introduction of the civil practitioner appears to be a necessity consequent upon the concentration of military patients in station hospitals. Small detachments of troops must occasionally require medical attendance, and it is evident that "the Department" will not be able to allow executive officers to waste their time, in nominal medical charge of small bodies of men, while there is plenty of work to be done at the station hospitals; so "non-dieted hospitals" are to be recognised institutions, to be opened at stations where there are only small detachments of troops, who will be placed under the medical charge of civilian general practitioners. We are glad to notice an extension of the hospital accommodation provided by the new Regulations for women and children; and it is satisfactory to find that the wives and children of soldiers *not on the married roll* will to a certain extent be permitted to receive medical treatment at the public expense. The old rule, which did not entitle these unfortunate creatures to military medical attendance under any circumstances, was uselessly harsh, for humanity forbade it to be carried out. It did not act as a warning to deter soldiers from marriage,—for lovers probably never contemplate the necessity of calling in the doctor when they enter the bonds of matrimony; and the punishment only fell when the man and woman were already suffering enough from improvidence, and were heartily wishing themselves unmarried again. We observe that the medical officers to be employed at these female hospitals will be required to train "soldiers' wives" who are desirous of becoming qualified to attend as Army midwives and sick-nurses; and the general regulations in the Appendix to this effect appear to be very comprehensive, and, if carried out, likely to be of great benefit to the Service, by introducing a class of sick-nurses in every way superior to that which, in the olden days, was only a source of obstruction to the medical officer, and of danger to the patient. The new Regulations seem to us to give the military com-

mand of hospitals to medical officers *in certain cases*, but they do not speak out as decisively as they should. It is clearly enough laid down that, "Subject to the general officer commanding the district, the principal medical officer will have *military authority* over all medical officers; all officers, non-commissioned officers, and privates of the Army Hospital Corps, allowed to the hospital; over all patients in hospital, and non-commissioned officers and privates of other corps attached to the hospital for duty, without their own officers; and will be responsible for the discipline of the whole establishment." But this is laid down for general hospitals, and we are only told with regard to others that "all hospitals will be under the immediate *control* and *management*" of the medical officers appointed to the charge of them. But among the list of hospitals is included the non-dieted hospital, where the civilian practitioner can scarcely exercise "command," and we doubt whether even the general hospital at Netley will speedily be placed under the "command" of a military medical officer. It is hardly necessary to notice minor changes in the Regulations, although some are of importance—such, for instance, as the compulsory vaccination and revaccination of the officer and his family, as well as of the soldier. We consider, in conclusion, the new Regulations an improvement on the old, and earnestly hope that a wise and judicious treatment of the future executive officers will provide a sufficient supply of highly instructed men, capable of carrying them out to their fullest extent.

THE ETIOLOGY OF FIBROID TUMOURS OF THE UTERUS.

In the human uterus, "growths," sometimes attaining an enormous size, chiefly composed of smooth muscular fibres united by connective tissue, and nourished by bloodvessels, not unfrequently develope. They give rise to a variety of symptoms, and especially to hæmorrhage of a profuse and uncontrollable character, and, except where they are intra-uterine, and not always even then, their removal is either extremely hazardous or quite impracticable. The question naturally suggests itself—What is the cause of these uterine fibroids, and can nothing be done to prevent their development? Hitherto the answer has been completely negative. Great authorities like Scanzoni, Schroeder, West, Churchill, Thomas, and G. Braun, have all confessed their inability to explain the origin of these growths; and the writers of the two most recent English gynæcological works—Lawson Tait ("Diseases of Women," page 162), and Heywood Smith ("Practical Gynæcology," pages 63-65)—have declared, the former that "why they grow is a complete mystery," and the latter that "their causes are unknown." With his usual acuteness, however, Virchow years ago expressly pointed out, in his work on Tumours, that "the *irritative* character of the growth of fibroids, of which there cannot be the slightest doubt, is not due to a physiological stimulus like that of pregnancy, but to a diseased condition, arising either from an excess of local irritation, or from the feeble resisting power of the affected portion of the uterus." He further indicates as probable factors in the development of fibroids, *inter alia*, miscarriages, menstrual irregularities, parturition, prolapsus uteri, and diseases of parts in the neighbourhood of the uterus.

After lying for a number of years without any sign of germination, these ideas of Virchow's have at last fallen on fruitful soil, and the accuracy of his prevision has been to a considerable extent established by the independent observations of two good and competent authorities, Professor F. Winckel of Dresden,(a) and Professor Roehrig of Kreuznach,(b) a *resumé* of whose results we now propose to lay before our readers.

If we take a number of cases of uterine fibroids, and carefully investigate the time at which the earliest symptoms made their appearance, we shall find that these growths originate most frequently at that period of life when the sexual functions are at their maximum development, namely, about the thirty-first year. This fact was first insisted on by West, has been accepted by Graily Hewitt, and is completely confirmed by Winckel and Roehrig. But a number of cases date their earliest symptoms even before the thirtieth year, decidedly negativing the old idea that the climacteric period exercised an influence on the development of fibroids. The following table will make this part of the subject clear, and save further detailed explanation:—

Distribution in Decades.

	Winckel. No. of cases.	Roehrig. No. of cases.
15-20	3	2
20-30	44	46
30-40	69	85
40-50	43	37
50-60	5	6
60-70	1	0
Totals	165	176

Roughly speaking, more than *two*-thirds of all the cases here tabulated began between the ages of twenty and forty. Of Roehrig's cases, eighty-seven, or just one-half, originated between the twenty-fifth and thirty-fifth years.

The period of greatest sexual vigour being thus proved to coincide with the period when fibroid tumours most frequently originate, the next question is—Are these growths most common in the unmarried or the married; with the disuse or the use of the sexual organs? Winckel has collected the statistics of 555 cases on this point, and finds that 140 (24·2 per cent.) were spinsters without children, 134 (24·3 per cent.) married but childless, and 281 (51·5 per cent.) married with one or more children. Of Roehrig's cases, 70 (?) were spinsters, 31 married without children, and 75 married with one or several children.

Thus, in three-fourths of Winckel's cases the patients were married, and in at least three-fifths of Roehrig's,(c) —a fact which, taken together with similar statistics of West, Routh, Veit, and others, clearly indicates that some connexion exists between the functional activity of the uterus as a child-bearing organ, and the development of fibroid tumours; or as Winckel puts it, that "married women are decidedly more predisposed to this affection than unmarried —*i.e.*, than those who can satisfy their sexual instinct either rarely or not at all."

In endeavouring to explain the greater frequency of myomata in married females, we have to remember the more varied accidents and mechanical injuries to which the uterus is liable in them—injuries during pregnancy, at the time of parturition, and for some time afterwards. In all women (except during pregnancy) the uterus undergoes increased congestion every three or four weeks for about thirty years; its arteries, in spite of their peculiar tortuosity, are subjected to a very high degree of pressure before they reach its inner coat; while the vessels of the superficial layer of the mucous membrane are, according to Henle, remarkable for their delicacy: hence we need scarcely wonder, knowing how rapidly the physiological stimulus of an ovum causes general

(a) "Ueber Myome des Uterus in Ætiologischer-Beziehung" (*Volkmann's Sammlung Klin. Vorträge*, No. 9).

(b) "Zur Ætiologie der Uterus-Fibromyome" (*Berliner Klin. Wochenschrift*, 1877, Nos. 30, 31, 34, 35).

(c) There is some difficulty about Roehrig's statistics here. He gives 176 as the total number of his cases; 106 as that of the married patients, of whom 31 had no children, which of course leaves 70 cases where the patients were unmarried. But at page 449 he says, "out of my 176 cases there were only *thirty* unmarried patients with fibroids." To which class are the remaining forty to be assigned?

hypertrophy of the uterine walls, if the pathological stimulus of local circulatory disturbances, congestions, etc., due to mechanical injury, should give rise to partial hypertrophy—that is, to the formation of fibroid tumours. Both Winckel and Roehrig (the latter following on the lines laid down by Winckel) assume that for the development of a fibroid tumour the uterus must receive a mechanical injury sufficient to leave a permanent *locus minoris resistentiæ*, and that the pathological alteration thus induced, and the functional hyperæmia to which, either during menstruation or pregnancy, the uterus is liable, react on one another so as to induce hypertrophy at or near the affected spot. Roehrig is inclined to regard a local chronic sharply circumscribed inflammatory process as the starting-point in many cases, and he lays stress on the necessity for an (hypothetical) "individual predisposition," without which certain morbid stimuli would have no effect on the development of fibroids.

Turning now to the special accidents which appear to affect the growth of uterine fibroids, we may, as Winckel does, divide them into two classes—those which *directly* involve the uterus to a greater or less extent; and those which only indirectly involve it.

The first class includes the cases where the patients refer the commencement of their troubles to the early weeks of their married life, and where it appears probable that a retroflected uterus was bruised during the repeated acts of coitus which took place at that time. It also includes the cases which originated in a miscarriage, in the removal of an adherent placenta, or in some operative procedure connected with the fœtus; in a fall or blow during pregnancy, followed by premature labour; in protracted hæmorrhage after childbirth, leading to imperfect involution of the placental insertion, swelling of the uterine mucous membrane, and catarrh; and, lastly, in para- and perimetritic inflammation. Out of 115 cases of his own, Winckel was able to refer eighteen (15·6 per cent.) to one or other of the above causes; and Roehrig gives details of a number of cases of the same kind, in several of which the patients suffered constant pain at the seat of uterine injury until eventually a fibroid tumour was detected at that very spot.

Under the head of indirect injury, Winckel enumerates cases in which the lifting of some heavy object was immediately followed by uterine hæmorrhage, and later on by fibroid growth; and others in which a severe shock to the body set up the uterine hæmorrhage, such as a fall downstairs. Both he and Roehrig lay great stress on accidents arising from want of care at the menstrual period, such as catching cold and over-exertion in walking, riding, dancing, skating, and singing. Roehrig gives the details of a number of such cases, in which the relation between the injury and the development of the fibroid stands out very clearly; and he also calls special attention to the injurious effects of the prolonged fatigue which many young women have to undergo in the way of sight-seeing and mountain-climbing during their honeymoon, as laying the foundation for future fibroid disease. As an instance of this, he mentions a case known to himself, where a newly married couple ascended the Righi and Mount Pilatus on two successive days, the lady menstruating at the time. The result was that she was laid up for six weeks at Lucerne with metritis, and for three years afterwards suffered from retroflexion and chronic metritis, with general nervous prostration, a fibroid tumour being at length discovered in the posterior wall of the uterus.

The influence of diseases of the other organs of the body upon the development of fibroid tumours has received attention both from Winckel and Roehrig; and the former mentions a number of cases in which these growths occurred in persons who had suffered from severe typhoid fever, from typhoid fever and scarlet fever, or scarlet fever and measles, in quick succession, or from acute rheumatism and subsequent intermittent fever. He explains the injurious influence of such diseases (1) by the hyperæmia and hypersecretion which they induce; (2) by the effect of the fever in causing greater friability of the uterine vessels, and consequent nutritive disturbances of the organ itself; and (3) by the prolonged supine position of the patient, which necessarily induces congestion and swelling, especially in the posterior wall and the fundus of the uterus.

Chronic uterine congestion is also a result of heart disease, and not less than seventeen of Roehrig's 176 cases were complicated with the presence of endocardial lesions (mitral regurgitation in twelve, mitral obstruction in five), eight cases being clearly traceable to acute rheumatism, and three others to hereditary influence. Whether the heart disease stood to the tumours in the relation of cause and effect cannot of course be decided accurately with our present imperfect knowledge; but one thing is pretty certain, that the heart disease was not secondary to the tumours, and due to obstruction of the abdominal circulation by the latter, for only in four of the cases did the fibroid growth exceed the size of a billiard-ball.

We can only here mention the possibilities which Roehrig entertains, that gonorrhœal vaginitis, the injection of caustic fluids into the uterus, and the prolonged use of intra-uterine stems and vaginal pessaries, may all be potent agents in inducing fibroid growth; and we must close this article with one or two remarks suggested by a general review of the facts before us. In the first place, we know that in other organs—for instance, the mamma—the development of certain new growths seems to be set going, so to speak, by a blow or some other mechanical injury, and the first symptoms of syphilomata in the brain have dated from an injury to the head: why, then, should not mechanical injuries affect the uterus in a similar manner? Secondly, we are more than ever reduced to fall back on the idea of some mechanical explanation of the origin of fibroids, because heredity fails to elucidate their presence, the hereditary element being only traceable in five out of Winckel's and six of Roehrig's cases.

Lastly, the recognition of a mechanical origin of these growths suggests the necessity for extreme care in the treatment of uterine disease, and especially points to the avoidance of any measures likely to give rise to chronic irritation.

We do not pretend in what we have here written to give more than an outline of the arguments in favour of these new views; hence we cannot too strongly urge the gynæcologist who desires more convincing proofs and larger details to study the original memoirs to which we have so often referred.

A MODIFIED METHOD OF TREATING DIPHTHERIA.

"When we are convinced that suffering humanity will benefit at all from our experiences, we ought never to abstain from publishing them," is the dictum of Dr. Mueller-Warnek, of Bielefeld, in a paper on the treatment of diphtheria before and after tracheotomy (*Berl. Klin. Woch.*, Nos. 44 and 45, 1878), and as he believes that in Professor Bartels' clinic at Kiel, where he was a long time assistant, greater success has attended certain changes in the treatment introduced about a year ago, he follows the expressed wish of his late chief, Professor Bartels, and gives publicity to them.

The cases treated have been mainly children under twelve years, a large number of them "nurse-children" brought up in a very wretched way, as such unfortunates generally are. Of 131 cases observed up to the end of 1867, twenty-seven suffered from pharyngeal diphtheria only, and recovered; fifteen others, in whom the larynx was also involved, recovered

without tracheotomy. The remaining eighty-three, with one exception all under twelve years, had tracheotomy performed on them, and sixty-six died, seventeen recovered. Of these fifty were males, thirty-three females. In the four years 1873-1876—the last before the new method was introduced,—forty-three tracheotomies were performed, thirty-six patients died and seven recovered. In 1877, out of seventeen tracheotomies, seven, or a number equal to the total recoveries of the four previous years, were saved.

Dr. Warnek ascribes this improved figure to the use of a soft elastic French catheter to remove incrusted diphtheritic plugs from the trachea, and of the larger bronchi, which otherwise would cause suffocation and death. The size of the catheter chosen depends on the age of the patient. Before using it is to be dipped in hot water to make it still softer, and then dried quickly, and passed through the tracheal opening, after removal of the canula, into the trachea as far as it can be made to reach. The catheter is then twisted round a few times, and quickly withdrawn. The plugs of membrane loosened by the catheter are always easily expelled afterwards in the act of coughing; and Dr. Warnek has never found that they became suddenly impacted either at the bifurcation of the trachea or in the bronchi so as to cause asphyxia. The repeated application of a sponge wrung out of hot water to the canula-opening after the catheterisation largely assists the loosening and discharge of the membranes. Of course, if the finer bronchi are attacked, as unfortunately so often is the case, neither this method nor any other is of use; but such as it is, Dr. Warnek firmly believes that to it the comparative success of last year is due. In any case, it is superior to the method of extracting the tracheal membranes by aspiration by the mouth, as all risk of infection is avoided, and, secondly, a skilled nurse can execute the necessary manœuvres after a little instruction. To prevent the spread of the diphtheritic process to the edges of the tracheal wound, Dr. Warnek has found, since January, 1876, that the direct application of balsam of Peru several times a day, and the protection of a rag soaked in the balsam during the intervals, is a perfect preventive of such an extension. The old plan of treating diphtheria by various drugs, chlorate of potash, borax, etc., has never been of the slightest use, as far as Dr. Warnek has observed, in any of the cases, though often tried. Different forms of spray, inhalation with salicylic acid, lime-water, borax, and turpentine, have all been tried, and abandoned in favour of a simple warm spray of 1 per cent. solution of common salt, which gives comfort at any rate to the patients, and appears to render the membranes looser and more easily expectorated. It certainly retards the incrustation of the canula with dried secretion. For a long time Bartels used inunction of ung. hydrargyri in all his cases, but the fact that two children with acquired syphilis who had for some time had mercurial treatment caught diphtheria while in the hospital and died, put an end to any predilections in its favour. In conclusion it may be worth mentioning that Professor Bartels, who had had a large field for the study of diphtheria in Schleswig-Holstein and who published a memoir on the subject in 1866, in the *Deutsches Archiv für Klin. Med.*, entirely abandoned any distinction between diphtheria and croup, regarding them as merely differently localised manifestations of the same disease.

THE WEEK.

TOPICS OF THE DAY.

A GERMAN physiologist, Herr Vierordt, has been noticing some phenomena which he thinks will give information of the rate at which oxygen is being used up in the human body, and the knowledge of which may be advantageously utilised by the physician. The compound which oxygen makes with the colouring matter of blood—viz., oxyhæmoglobin—gives a well-marked spectrum, having two absorption bands. Herr Vierordt points out that this may be simply observed by putting the fourth and fifth fingers one over the other, and bringing their line of union before the slit of a spectroscope, the light used being sunlight transmitted. If a caoutchouc ring be passed round the fingers so as to stop the access of arterial blood, the two absorption bands in the spectrum disappear in a few minutes, the spectrum giving place to that of reduced hæmoglobin: when the ring is removed, the former spectrum recurs. Reflected light will give the indications, and they can be conveniently observed from a finger, the red part of the lips, the tongue, etc., with a Browning spectroscope. Herr Vierordt has made a large number of experiments on himself, and he gathers from these that the consumption of oxygen in normal, quiet life is subject to considerable variations; on rising in the morning the process is slowest, increasing towards the middle of the day, and decreasing towards night. The dissociation of oxyhæmoglobin occurs in about two minutes, or in about the time in which suppression of breathing is found to cause the gravest phenomena in the system.

A conference of local authorities, engineers, and others interested in the economical disposal of water-carried sewage, was recently held at Manchester, at the invitation of Sir Henry Cole, K.C.B., to discuss a proposal for bringing the smaller towns of Lancashire into local federations for the purification of their sewage. The meeting was attended by representatives of a considerable number of districts. Sir Henry Cole pointed out in detail the advantages of the proposed federal system, the adoption of which was calculated to save at least one-third the expense of the treatment of sewage. The idea was generally approved by the speakers at the conference, but some of them anticipated much difficulty in persuading different localities to adopt combined action as proposed. A resolution commending the principle to the careful consideration of sanitary boards was passed, and, at the suggestion of the chairman, the meeting was adjourned for three months, with a view to practical steps being devised in the meantime.

Some of the large firms of printers—notably Messrs. Eyre and Spottiswoode, Marcus Ward and Co., De la Rue and Co., and others—obtained from the authorities of the London hospitals the names of the children who were in-patients during the past Christmas, and forwarded to each by post one of those Christmas cards for which the several establishments are so celebrated. This kind act was heartily appreciated by the youthful recipients. At St. Bartholomew's Hospital the Court of Governors have just acknowledged, by a formal vote of thanks, several valuable and seasonable gifts received from Lady Waterlow, the wife of the treasurer of this institution. They are the result of a benevolent employment of her ladyship's leisure moments for a period of twelve months, and comprise nearly a hundred handsomely worked "Nightingale" jackets for the use of patients approaching convalescence, and more than fifty well-bound and neatly mounted scrap-albums for the amusement and instruction of children. The Governors, in their resolution, suggest Lady Waterlow's example as one which might be profitably and pleasurably imitated by many other ladies.

At Hendon College, recently, Dr. N. Heineman, F.R.G.S., delivered a lecture on the "Symbolic Expressions of the Human Face," with numerous illustrations. In a novel and entertaining manner he popularised the discoveries of modern

physiology, and applied them to physiognomy, commencing by saying that there is nothing in the world presented to our senses which engrossed such a large share of our attention as the human face. He pointed briefly to those parts of the human face which might be said to be under the control of the mind, these being the very organs which furnish us with mimic and physiognomical indications. Dr. Heineman further referred to the shortcomings of the well-known system of physiognomy put forth by Lavater, which he characterised as unsatisfactory and unscientific. The lecturer also exhibited diagrams, showing the malformations of some portions of the human body caused by the follies of fashion in past and modern times.

In our frequent notices of the monthly reports published by the Water Examiners of the metropolis, we have occasionally called attention to the experiment undertaken by the New River Company at Turnford, near Cheshunt. In this locality the Company have for some time past been engaged in sinking a deep well in search of the water of the lower greensand. The work has now been carried to a depth of 900 feet from the surface, and at the present time has reached the gault; the shaft is lined all the way down with a wrought-iron tube twenty-six inches in external diameter, so as to exclude the upper waters. The contractors for carrying out the undertaking are now about to continue the exploration by means of a diamond drill exceeding in size any previously made; when driven by steam-power it will be capable of bringing up cores nineteen inches and a half in diameter. Much interest attaches to these operations at Turnford, both in relation to the water-supply and to the proximity of the primary rocks.

The recent exceptionally severe weather has furnished the London hospitals with the usual quota of "accidents." Up to the present those received at St. Thomas's have, with one exception, consisted chiefly of persons who have fractured their legs and arms in consequence of falls. At St. George's the admissions have been only of the average character, while at Charing-cross there have been fewer cases than usual at this time of the year. It is gratifying to find that the London magistrates have determined to take a severe view of all cases of street-sliding brought before them. This reprehensible practice cannot be too strictly condemned, and the youths of the metropolis should be sharply taught that their thoughtless amusement is frequently the cause of suffering and misery to the more orderly portion of the population.

The *Sanitary Record* is enabled, by the courtesy of Dr. Eigenbrodt, of Darmstadt, to dispel any doubts which may have arisen as to the sanitary condition of the New Palace of the Grand Ducal family at Darmstadt. The drainage system of the New Palace was made according to the plan of Mr. Gordon, an English engineer, who was formerly under the well-known Mr. Rawlinson. The same gentleman also carried out the drainage of Frankfort-on-Maine, which has been most successful. Recently a careful examination was made both by medical men and architects, and no defects could anywhere be found in the drainage of the New Palace. The water-supply, both for drinking and cooking purposes, comes from a spring in the woods some miles from the town. A chemical analysis of this proved it to be of superior quality. No other person living in the palace has been attacked by diphtheria except the Grand Ducal family, in whom there must be a peculiar disposition to the disease. After the most careful examination and consideration of all the circumstances, Dr. Eigenbrodt can come to no other conclusion than that the diphtheritic poison was, in the first instance, imported from the town.

At the conclusion of an inquest held at the Railway Hotel, Beckenham, last week, the foreman complained to the Coroner, Mr. Carttar, of the great want of a mortuary in that parish. The Coroner said it was very essential that every parish should have a mortuary, and he thought they were rich enough at Beckenham to meet the expenses of erecting one. Where there was no such accommodation the dead body was usually taken to a public-house, and he had over and over again told licensed victuallers not to receive bodies into their houses. A licensed house was for the living, not for the dead; it was detrimental to the landlord's trade, as customers might thereby be prevented from entering. In the event of a stranger falling dead in the street, if there were no mortuary, the body should be taken to the parish authorities, who were bound by law to provide a place for its reception; and if there was no other place, it should be carried into the churchwarden's drawing-room, and left there, but should never be taken to a public-house.

At the Oxfordshire Quarter Sessions, recently held, an inquest on a patient in the County Lunatic Asylum was referred to in a report of the committee, in consequence of a communication from the Coroner declaring that a post-mortem examination which had been made without his order was illegal. The Attorney-General and the Solicitor-General, however, had given it as their opinion that a post-mortem examination of the body of a patient dying in a lunatic asylum can lawfully be made, the relations or friends not objecting, without the coroner's order, and that the post-mortem of the body of a patient dying in a lunatic asylum can lawfully be made by the superintendent, with the consent of, or in the absence, after notice, of any objection by, the relations of the deceased. From various slight incidents recently reported from Oxford, it certainly would seem that the relations between the Coroner of the city and the medical profession there are not exactly on a satisfactory footing—a circumstance much to be deplored on public grounds.

Sir Alexander Armstrong, Director-General of the Naval Medical Department, on Monday last inspected Whale Island, with a view of reporting on its suitability, from a medical point of view, for the naval barracks which it has been determined shall be built there.

The Queen has been pleased to approve that the Honorary Physicians and Surgeons to her Majesty in the Royal Navy shall wear a gold and black sash, of the same pattern as that worn by Honorary Physicians and Surgeons to her Majesty in the Army. The sash is to be worn only with full dress, when in attendance on the Sovereign, or on State occasions.

THE UNSANITARY CONDITION OF THE DEWSBURY DISTRICT.

Some time since, in consequence of the prevalence of infectious diseases in the Dewsbury District, Dr. Thorne Thorne, one of the Local Government Board Inspectors, was sent down to make a thorough investigation. His report, which is exhaustive, discloses a most unsanitary condition of affairs. Large towns and boroughs, whose sanitary experience has been dearly bought, are numerous within a comparatively small radius of the district, and, with but rare and recent exceptions, this experience has not been taken advantage of, for not only have those sanitary defects which in the older boroughs were most glaring and most injurious to health been copied in almost every detail, but the defective conditions once having been allowed to arise, they have been all but continuously perpetuated up to the present date. Dr. Thorne has dealt with each sub-district of the locality separately, although it may be said that the same sanitary defects are common to all. Water-supply, sewage and drainage, midden privies—all require

immediate and thorough attention; while piggeries and urine tubs (in which latter accumulations are stored for employment in the wool trade of the neighbourhood) require to be put under strict regulation. The task of reforming the sanitary condition of Dewsbury and its suburbs will be a heavy one, and will require prompt and vigorous measures if the locality is to be rendered even tolerably healthy. One of the grave defects of the town is the practice of building the houses back to back, thus rendering through ventilation impossible; nevertheless, much may be done if the authorities will take Dr. Thorne's recommendations for their guide, and, regardless of private interests or pecuniary outlay, commence a sweeping reform in all the defects he has pointed out. Until this has been done, the death-rate of the district will continue to record the unnecessary sacrifice of human life through perfectly preventable causes.

MEDICAL SUPERVISION AND INSPECTION OF PUBLIC SCHOOLS.

THE members of the Liverpool Medical Institution have lately presented a petition to the President of the Local Government Board in favour of a systematic supervision and inspection of public schools. They say—"We consider this a necessary measure, and hope that the recommendation of it will meet with your approval, particularly since medical supervision has been made obligatory in analogous conditions, viz., under the Factory Act and in the Emigration Service. Your memorialists suggest that the duties of the proposed medical inspectors of schools should chiefly consist in preventing children who have been suffering from infectious diseases from attending school before the infective period has passed; in visiting the houses of children absent from school in consequence of illness; and in making strict inquiries into the general sanitary condition of the respective families. Under existing arrangements the warnings sent to schools by medical officers of health generally come too late to answer any practical purpose, and it must further be considered that such officers by no means obtain information of all infectious cases. The duties of the proposed medical inspectors should further consist in ascertaining and certifying that the children seeking admission have been properly vaccinated, and are free from contagious skin disease. There should be also medical inspection of the school premises and of the children in attendance, carried out in such a way as to interfere as little as possible with the work of instruction." And they add—"Your memorialists are aware that they must limit their request for medical inspection to public schools which are under the control of the Government; but they feel confident that managers of private schools will very soon not only not object to, but court, medical supervision." The petition is signed on behalf of the members by Dr. A. T. H. Waters, the President, and Dr. Richard Caton, the Hon. Secretary of the Institution.

WATER-SUPPLY OF THE METROPOLIS FOR NOVEMBER LAST.

FROM the official report of the Water Examiners on the quality of the water supplied to the metropolis during the month of November last, it appears that the water abstracted from the Thames by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was much polluted by organic matter, although it had been efficiently filtered before delivery. The worst water from this source was supplied by the Southwark Company, and the best by the Grand Junction and Chelsea Companies. The New River and East London Companies deliver water obtained from the river Lea; it was efficiently filtered by both companies, and was superior even to the best water from the Thames; but the East London Company's water was much inferior to that distributed by the New River Company. The water supplied by the Kent and Colne Valley Companies and by the Tottenham Local Board was clear, and of its usual excellent quality for dietetic purposes. The Colne Valley water was also soft, and was the only water fit for washing delivered in London. The explanation of the difference in quality of the water supplied by the various companies is not far to seek when it is considered that the state of the water in the Thames, near the several intakes, was indifferent and turbid from the 1st to the 5th of the month, when it became clearer and was in a good condition to the 11th, after which it again became turbid, and continued in a bad state to the end of the period; while the water in the river Lea was generally turbid during the month.

THE PRACTITIONERS' CLASSES AT BERLIN.

THE organisation of practical courses of six weeks' duration, at Berlin, to enable men of some standing in the profession to furbish up their medical knowledge, and bring themselves to a level with the science of the day, has been already referred to in this journal. We are glad to be able to announce the success of the attempt, which is one well worthy of imitation in this country. "At the autumn session, which ended on December 2, nearly fifty practitioners," says the *Berliner Klin. Wochenschrift*, "took part." These men represented all the States of Germany except Baden and Würtemburg, and one took the trouble to come even from Lucerne. The courses most largely attended were pathological anatomy and histology, forensic medicine, and gynæcology. The lecturers on pathology, Drs. Jürgens and Grawitz, were obliged even to give a double series of lectures, and in several courses the maximum number of hearers previously decided on was considerably exceeded. It is remarkable that the course on physiology was not held, because only *one* "student" presented himself; and those on diseases of children, dentistry, syphilis, and skin diseases, because there were only two applicants for each. If the standard of physiological knowledge is no higher among German than among English general practitioners, the apathy shown with regard to this all-important subject, the only basis of rational medicine, is sad indeed. The same may be said of children's diseases, on the subject of which a terrible degree of ignorance prevails.

HYBRIDS OF TYPHOID AND TYPHUS FEVER WITH RELAPSING FEVER.

IN the blood of one typhus and four typhoid patients, whose symptoms presented some of the characters of relapsing fever, Borodulin (*Petersburgh. Med. Woch.*, No. 28, 1878) succeeded in discovering Obermaier's *Spirillum*, and thus proving that these cases were truly hybrid. The peculiarities which directed attention to relapsing fever were irregular variations of temperature, perspirations, and the fact that cerebral symptoms were but slightly marked. Physical examination revealed very decided enlargement of the liver and spleen, and petechiæ of vermilion colour occurred at the very onset of both the typhoid and typhus fevers. One case died, and the pathological changes were essentially those of typhoid fever. The spirilla were more abundant in the blood the nearer the disease appeared related to the pure form of relapsing fever.

THE GERMAN MEDICAL FACULTIES.

A RISE of 103,582 marks is announced in the sum demanded for the maintenance of the various elements of the medical faculties at the eight North German Universities of Königsberg, Berlin, Greifswald, Breslau, Halle, Kiel, Göttingen, and Bonn. Of this 19,959 marks go to improve the salaries of the professional staffs. For various new buildings, including a surgical clinic at Königsberg, a botanical museum,

an obstetric and gynæcological clinic at Berlin, and an anatomical institute at Halle, the large sum of 2,915,083 marks will be required. The total number of ordinary professorships in the medical faculties of Prussia is eighty-eight, of which four will in future be abolished. The lowest salary is 1800 marks at Königsberg, the highest 7500 at Berlin, Halle, and Göttingen. There are forty-two salaried extraordinary professors. In future their number will be reduced to thirty-eight. The highest salary is 3600 marks at Bonn, the lowest 600 at Göttingen. In addition, there are thirty-four extraordinary professors, who receive *no* salary. The total number of *Privat-docenten*, or private tutors, who are unpaid and unrecognised by the State, is 103, of whom forty-three are at Berlin.

"INDEX MEDICUS."

We have spoken more than once in our columns of the great "National Catalogue of Medical Literature" which has for some time been in course of preparation by Dr. John G. Billings, who has charge of the National Medical Library at Washington. This work is now ready for the press, and will be printed as soon as Congress makes the necessary grant of money for the purpose. It will be a "great" work in every sense, as it includes more than 400,000 subject entries, and will make ten volumes royal octavo of 1000 pages each. We now learn that it is proposed to publish monthly, as supplemental to the catalogue, under the editorship of Dr. Billings, and of his assistant, Dr. R. Fletcher, M.R.C.S. Eng., a current medical bibliography, under the title of the *Index Medicus*, which will record the titles of allnew publications in medicine, surgery, and the collateral branches. They will be classed under subject headings, and will be followed by the titles of valuable original articles upon the same subjects, found, each month, in medical journals and transactions of medical societies. The full title of the proposed work is, "A Monthly Classified Record of the Current Medical Literature of the World,"—which has quite an American tone of largeness and grandeur about it. But the name of the editor-in-chief is a guarantee that the work will be made as complete as the materials afforded to him will allow; and if at all nearly complete, the new Index will undoubtedly be a very valuable work of reference. The enterprising publisher is E. Leypoldt, of New York.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

The first monthly meeting of this Society was held on Tuesday, December 3, at the New Medical Library, Wolverhampton, when the President, Dr. Bodington, read his inaugural address "On Insanity, with special reference to its Prevention." Dr. Millington exhibited a brain which had been the seat of double hæmorrhage, into the hemisphere, and into the pons Varolii. Dr. Joseph Hunt showed a patient, aged eighteen, who, after three aspirations and the withdrawal of 180 ounces of pus, had been cured of an empyema. Mr. Vincent Jackson exhibited Martin's elastic bandages. There were numerous specimens, showing the histology and pathology of the lung, exhibited under nine microscopes. Twenty-two members and visitors were present.

SOUTH LONDON SCHOOL OF PHARMACY.

The sixth annual dinner took place at the Horns Assembly-rooms on Friday, the 20th ult. There were about 130 old and new students present, together with a large number of gentlemen interested in the progress of the School. Dr. Julius Pollock, not without a kindly and generous word, nor without a well-turned point, presented the prizes to the following successful competitors:—Senior Chemistry: Medal, Mr. Pollock; certificate, Miss Stammwitz. Junior Chemistry: Medal, Mr. Harrison; certificate, Mr. Newbigin. Botany: Medal, Mr. Lord; certificate, Mr. Scammell. Materia Medica: Medal, Mr. Newbigin; certificates, Mr. Lemmon and Mr. Harrison (equal). Practical Pharmacy and Dispensing: Medal, Mr. Lemmon; certificate, Mr. Lord. Silver Medal of the Society for session 1877-78: Mr. John E. Phillips.

PROTRACTED EPISTAXIS CAUSED BY A PARASITE.

Dr. Landon, of Elbing (*Berl. Klin. Wochenschrift*, No. 49, 1878), relates the case of a workman, aged forty-two, who soon after the Franco-German campaign of 1870 was laid up with pain in the hepatic region, jaundice, and gastric disturbance, which symptoms persisted more or less until 1874, when he came under Dr. Landon's care with an attack apparently of perihepatitis. It then appeared that since 1871 he had also suffered from severe attacks of epistaxis, which occurred often twice in the same day. The patient complained of a feeling of painful pressure in the left nasal cavity, but with the speculum nothing but a moderate degree of inflammatory swelling could be detected. Suddenly, at Easter, 1878, a parasite was dislodged from the left side of the nose by a violent sneeze, and from that moment the epistaxis has not occurred. Its cause proved to be the *Pentastoma tænioides*, a fluke which in the perfect state inhabits the frontal sinuses and nasal cavity of dogs and other carnivora, occasionally of horses and goats, and in some countries of the human subject (Leuckart, Küchenmeister). The embryos live encapsuled in the pleural and peritoneal cavity of some herbivorous animals, and invade the liver. After a time they pierce the capsule, and wander in the body of their host, finally, unless he dies meanwhile, again becoming encapsuled. If the flesh of the host is eaten uncooked, the flukes find their way in the second host to his nasal and frontal sinuses, where they remain. It is not known how they enter man, but they are found in the liver of the negro. In the present case the hepatic symptoms were clearly traceable to the presence of *pentastomata* in the liver, and their cessation is probably due to the encapsulation of the parasites.

The New French Universities.—M. Bardoux, the French Minister of Public Instruction, who has the power, it would seem, of creating as many universities as he chooses, providing the municipalities of the towns desiring them vote the necessary expenses, has, by his recent elevation of Toulouse to that dignity, aroused the susceptibilities of Bordeaux and Montpellier. The new University of Bordeaux, which has gone to great expense in setting its Faculty of Medicine afloat, finds an almost fatal blow thus inflicted on it; while the old University of Montpellier, which had been so vitally lessened in importance by the establishment of the Faculties at Bordeaux and Lyons, feels a natural resentment at three-fourths of its topographical domain being snatched from it.—*Union Méd.*, December 28.

Fracture of the Humerus by Muscular Action.—Dr. Curtis relates (*Boston Med. Journal*, October 10) the following case:—"A man, fifty-four years old, of good bodily health, and somewhat muscular (although not athletic), was amusing himself with a friend at a trial of strength. Standing opposite one another, each with his right elbow flexed resting on a counter, they locked hands, palm to palm, and each tried to force down the other's hand. Just as the struggle for mastery reached its climax, my patient felt and heard a sudden snap, and all resistance on his part ceased. I saw him soon afterwards, and found a transverse fracture of the humerus, about three inches above the elbow. There was no overlapping, for the ends of the fragments could not be felt, and there was no shortening. At the end of thirty-five days firm union was obtained. So neatly had the repair taken place that no trace of the solution of continuity could be detected."

FROM ABROAD.

Transfusion of Milk in Anæmia.

Dr. Pepper, Professor of Clinical Medicine in the University of Pennsylvania, in a paper on "Organic and Functional Anæmia, and Milk Transfusion as a Remedy," read at the Philadelphia County Medical Society (*Philad. Med. Times*, November 9), observes that the vast importance of anæmia is now fully recognised. However limited our knowledge of the physiology of the blood, or of its exact relation to the tissues, may be, we can sufficiently appreciate the importance of its deprivation over limited areas, as in local anæmia; or of the deprivation or deficiency of the mass of the blood in general anæmia. Among the more important structural changes that may result are atrophy and fatty degeneration affecting the walls of vessels, or muscular, glandular, and nervous tissue, many hæmorrhages and dropsies being incidental to these conditions.

Anæmia is frequently *functional*, being then due to depressing causes of a temporary or remediable nature, unassociated with severe organic disease. Such causes are profuse or repeated hæmorrhages, deficient food, dyspepsia, diarrhœa, or other exhausting discharges, &c. The changes in the blood here are rather of quantity than of quality; and although, when such cases are intense and of long continuance, grave secondary results (such as fatty degeneration of the heart) may follow, yet if before such a stage is reached the cause be removed, and proper remedies employed, the anæmia will disappear, and health be restored. *Organic anæmia* may be of two entirely different kinds. In one of these it is consequent on organic disease of some important viscus, as in the intense and progressive anæmia attending fully-developed phthisis or rapidly growing cancer. It usually appears that the organic disease precedes the anæmia, the development of which depends upon its progress. It is, however, uncertain how far in such cases the disease acts merely as any other drain would, appropriating so large an amount of albuminoids and salines as to starve the other tissues, including the blood; or how far the nutrition and vital qualities of the blood are specially interfered with by the pre-existence of some morbid principle, or by the resorption of some septic material. But these cases differ widely from the other class to which the term *organic or essential anæmia* is strictly applicable. A progressive and apparently causeless anæmia is here the first symptom of disease. There is not merely a deficiency of the total mass of the blood or of the red globules, as in ordinary anæmia, but there are also changes in the structure and development of these globules, or in the number and properties of the white corpuscles. With these blood-lesions coexist grave changes in various tissues which are intimately associated with the maintenance and development of the blood. "At present we recognise, as belonging to this category, the medulla of the bones, the spleen, and the lymphatic glands, and in addition, perhaps, the minute centres of lymphoid structure scattered through the substance of organs. Here, then, is certainly an essentially different group of organic anæmias, the peculiarity of which is that there is not merely partial bloodlessness from some definite cause, but that there is a primary interference with the elaboration of the blood. Leukæmia, pseudo-leukæmia, and pernicious progressive anæmia, may be mentioned as the generally recognised members of this group. In a former communication I have suggested the name *anæmatosis* (defective elaboration of blood) for this important group of affections, and I still incline to regard it as rather a desirable term, since it expresses the one essential condition which they possess in common."

After these introductory observations, Prof. Pepper relates two cases of anæmia in which transfusion of milk was employed. For the details of these we must refer our readers to his paper, contenting ourselves with stating the results and reproducing his comments on this mode of treatment. One of the cases occurred in the person of a woman thirty-two years of age, who was admitted with extreme functional anæmia, which had also become complicated with a habit of using large quantities of morphia. After the usual remedies for anæmia had been tried assiduously for several months, about five ounces of fresh-drawn cow's milk were injected into the right median basilic. Somewhat alarming symptoms were produced, which, however, subsided without ultimate ill effects. The transfusion was practised three times between June 20 and July 17, and was followed by considerable improvement. A sailor, aged thirty-three, suffering from intense progressive anæmia, with marked bronzing of the skin, was the subject of the second case, and so far from deriving any benefit from the transfusion, his end seems to have been hastened by it.

The advantages claimed for the substitution of milk for blood in transfusion, as advocated by Dr. Gaillard Thomas (*Medical Times and Gazette*, June 1, page 598), are that there is no danger of embolism, and that fresh milk is ordinarily more readily obtainable. The following points may be considered as settled with respect to transfusion of blood:—1. That, excepting when direct transfusion can be dexterously performed, carefully defibrinated blood should be employed. 2. The amount injected should not exceed from five ounces to seven ounces, and it should be introduced very slowly. 3. Severe and even dangerous symptoms (of disturbed nervous and vascular action) are liable to occur during or soon after the operation. 4. Albuminuria may follow the operation. 5. Transfusion is capable of powerfully stimulating the circulation and nutrition for a short time, and may thus be used to save life in cases of exhaustion from profuse hæmorrhage. 6. It may also be employed legitimately for temporary relief in cases where extreme anæmia and exhaustion have resulted from a serious but curable functional disease, in order to gain time for curative measures. As illustrations may be cited—intense dyspepsia, gastric ulcer, chronic diarrhœa or dysentery, and hæmorrhage in typhoid fever. 7. In cases of incurable disease, such as advanced pulmonary phthisis, cancer, or anæmatosis, it exerts no curative effect, and the attendant risk is too great to justify its performance. The risks of transfusion are probably greatest in cases of phthisis, where the respiration and pulmonary circulation are impeded; and of organic anæmia where the mass of blood has been reduced, and where the heart is weak and probably fatty.

In comparing the effects of transfusion of milk with those of transfusion of blood, it may be concluded, from the experience derived from the limited number of cases that have been recorded—1. That the milk must have been just drawn from the cow, and be kept at a temperature of about 100° Fahr. 2. The quantity should not exceed six ounces, since it has been seen that even much smaller quantities than this may produce severe symptoms. 3. These symptoms seem as severe and of the same character as after the transfusion of blood, although the danger of embolism is to a great extent excluded. 4. Albuminuria may follow the operation, though this has been shown actually to have occurred only in a case where slight disease of the kidneys existed. 5. Transfusion of milk undoubtedly exerts a powerful and instantaneous stimulating effect on the circulation and on nutrition, and may therefore be used instead of blood in cases of profuse hæmorrhage, etc. 6. It is still doubtful whether, in cases of intense anæmia connected with serious but curable disease, milk, although doubtless of much service, produces so lasting an effect as is obtained when blood is used. The severe symptoms following the operation, and the possible dangers attending it, render it improper to perform it in such cases until all other remedies have failed. 8. In case of serious organic anæmia the operation may hasten a fatal result; and as, even when most successful, it can only secure temporary improvement, its performance is not justifiable.

Portraits of Professor Balfour.—On December 24 two portraits of Professor Balfour, of Edinburgh University, painted by Sir Daniel Macnee, President of the Royal Scottish Academy, were presented—the one to the Senatus of the University, and the other to Mrs. Balfour. These presentations were the outcome of a movement among the friends and former pupils of the Professor to express in some lasting form their appreciation of his general worth and of his special services as Dean of the Faculty of Medicine in the University—an office from which he lately retired after a period of thirty years' service. The presentations were made by Lord Curriehill in behalf of a large number of subscribers.

REVIEWS.

Application des Sciences à la Médecine. Par le Dr. EDOUARD FOURNIÉ, Médecin à l'Institut National des Sourds-Muets. Paris: V. Adrien Delahaye et Cie. 1878.

The Application of the Natural Sciences to Medicine. By Dr. EDWARD FOURNIÉ, Physician to the National Deaf and Dumb Institution. Paris: V. Adrien Delahaye and Co. 1878. Pp. 731.

THE general idea of this really valuable book is, in the author's words, "to indicate the links which connect each advance in science to its application to medicine." The reader is supposed to start with a knowledge of anatomy, physiology, chemistry, and physics, sufficient for the practice of his profession, and Dr. Fournié then presents him with an historical account of the rise and progress of each science so far as medicine has benefited thereby.

The work is divided into four books, the first treating of the applications of anatomy and physiology, the second of the applications of physics, the third of those of chemistry, and the fourth of those of botany and zoology to medicine.

A large part or Book I. is purely historical, embracing the period from the time of Hippocrates up to that of Harvey and Bichat. A careful analysis is given of the various writings attributed to the great Father of Medicine, Hippocrates, and short notices of the works of Galen, Vesalius (the long years between these two men, 150 A.D. to 1514 A.D., are buried in the dark ages,) Fallopius, Eustachius, and lastly (1578) Harvey, with whom a new era, fruitful in anatomical and physiological discoveries, extending to the time of Bichat (1771), began. The great discovery of Harvey gave a sudden impulse to research, and Willis, Malpighi, Leuwenhoëck, de Graaf, Valsalva, Santorini, Morgagni, Lieberkühn, Monro, and others, whose names are still "familiar in our mouths as household words," responded to it. The account given by Dr. Fournié of the "lights" of the seventeenth century is highly interesting and instructive, and will serve to supply both to students and fully fledged practitioners the historical knowledge which is so sadly absent from most anatomical and physiological lectures. It would be amusing to examine the Council and examining staff of the College of Surgeons on the history of anatomy, and we will undertake to say that a question like the following:—"Give an account of Varolius, Bartholin, Malpighi, Cowper, and Santorini, with their chief discoveries, and the dates of their births. Who really discovered 'Cowper's' glands?" would "stump" half the College.

A very good summary of the medico-philosophical doctrines of the sixteenth and seventeenth centuries is given. The intro-chemical system of Paracelsus and Van Helmont, the intro-mechanical of Descartes, Borelli, and Pitcairn, the spiritualist notions of Stahl, and the vitalist dogmas of Glisson, Haller, Cullen, and Brown, are all briefly analysed, and, as we read the analysis, the conviction forces itself on us that the followers of these systems are not even yet extinct.

Into Bichat's claims as the founder of a new pathology Dr. Fournié enters at some length. To Bichat we owe the division of pathological anatomy into general and special, which holds its ground at the present time. Bichat believed that the future of medicine depended on an accurate knowledge of pathological anatomy,—and no doubt he was right, yet pathology is *not even now a compulsory subject* in British medical schools.

The extremely interesting essay on "the development of anatomy and physiology from Bichat's time to our own," affords Dr. Fournié an opportunity of expressing his belief that the current high opinion of German histologists held by many French *savants* is undeserved. Virchow, the author of the "cellular pathology," he attacks with great vigour, not only insisting that his views are false (on which question we shall not express an opinion), but that "all the ideas on which the cellular theory is founded had already been published by the following French authors:—De Mirbel, Turpin, Raspail, Royer-Collard, Prevost et Dumas, Coste, Dujardin, etc."

But Dr. Fournié does not confine his attacks to the Germans. He disagrees with M. Bouillaud and M. Broca as to the localisation of the centre of speech in the third left frontal convolution, and he makes a vigorous onslaught on Professor Ferrier's researches into the localisation of the functions of the brain. The controversy between Dr. Fournié and Dr. Ferrier is a personal one, and we have no doubt that the latter observer will have something to say in answer to the serious objections to his work raised by the former. We will only remark that it is curious that Dr. Ferrier should be attacked both by Professor Hitzig and Dr. Fournié for plagiarising their experiments and their ideas. "For our part," Dr. Fournié says, "we find several fundamental points in Dr. Ferrier's physiology of the brain (in his 'Functions of the Brain,' published in 1876), which are really only reminiscences of our own work." He then indicates what these points are (page 317), and ends by accusing Dr. Ferrier of passing off as his own invention a modified diagram from Dr. Fournié's "Physiologie du Système Nerveux," published in 1872, which with the original is given for comparison in the work before us.

Passing from this unpleasant subject, we may say that the sketch of the development of our present knowledge of the anatomy and physiology of the nervous system, if perhaps rather too much tinged by the personal opinions of the writer, is no mean contribution to the literature of the subject. It forms perhaps the best and most original part of the book, and the one into which Dr. Fournié throws the most spirit. The subjects of pathological and surgical anatomy are treated very briefly. Under the rather curious title of "pathological physiology," a little space is devoted to disturbances of the digestive organs, and a good deal to a much less important subject, that of transfusion of blood, though the real value of the operation is scarcely discussed at all, and transfusion of *animals'* blood is absolutely ignored. Dr. Fournié appears never to have heard of the works of Gesellius, Landois, Ponfick, Colosanti, and others, on this subject. As to "the triumph of transfusion" being assured, we should like to know how it is that since 1875 transfusion has lapsed (*pace* Dr. Roussel) almost into its former obscurity. Among the other applications of "pathological physiology" to medicine in this chapter, we find described under the head of absorption the mode of treating diseases of the throat and lungs by pulverised liquids and inhalations, and of relieving or curing various affections by the hypodermic injection of drugs. In the list of formulæ, and of the uses to which certain remedies have been applied subcutaneously, we miss any mention of injections of perchloride of mercury, calomel, or mercuric albuminate in syphilis, of camphor as a stimulant, of carbolic acid in erysipelas, or of atropia in profuse sweating and as an antidote to opium.

The second book, treating of the applications of physics to medicine, gives an excellent account of the various instruments for graphically registering the movements of the heart and the pulse. It then briefly describes the method of treating diseases of the lungs with compressed air by placing the patient in a closed bell; but the other plan, which has lately found much more favour, of letting him simply breathe compressed air, from a reservoir, as recommended by Waldenburg, Biedert, and others, is not referred to. The use of rarified air as an inhalation is also omitted. The aspirator and the spirometer are described and illustrated; then acoustics are appealed to for the explanation of speech and of the sounds of the heart and lungs. Under "Optics," the development of the laryngoscope and the methods of using it are fully described, and, as usual, we have a picture of a gentleman examining a patient with the instrument, from which we learn that Dr. Fournié is by no means a bad-looking man! The endoscope and the speculum follow, but Marion Sims' speculum is not mentioned. A good illustration is given of Collin's beautiful little lamp for ophthalmoscopic and other purposes, which many persons wrongly suppose was invented by Messrs. Salt of Birmingham. The section on optics is very good, and the account of modern methods of counting the blood corpuscles will interest those who are no longer students. Under "Heat," a short history of thermometry is given, and the use of cold baths as an antipyretic is condemned. An illustration of Paquelin's ingenious gas cautery is inserted here; and the various instruments used in medical electricity are carefully treated under this section.

The third book begins with a short sketch of modern hygiene. In another edition we cannot help thinking that some descriptions and drawings of ventilating apparatus might be added, and the geological section enlarged.

The chemico-pathological part proper is fairly well done,

but might be much improved. Under "Quantitative Determination of Urea," we find no mention of the excellent hypobromite process, now adopted in the Belgian hospitals. Under "Materia Medica," which embraces the description of new drugs and new applications, the whole modern theory of antiseptics, including their application to surgery by Lister and others, is wanting, unless the author is satisfied with a line or two under "Salicylic Acid." Nitrous oxide is dismissed in half a page, while four pages are devoted to the inhalation of oxygen. As to the physiological action of chloroform Dr. Fournié is quite at sea. "It acts," he says, "by determining a stasis of half-coagulated blood in the capillaries of the lung. Chloroform therefore is an asphyxic anæsthetic." We have turned to the most modern text-book on drugs, (Nothnagel and Rossbach's *Arzneimittellehre*, 1878), and we find that "it is not known how chloroform acts in the blood of living animals"; that "its essential action is on the substance of the nerve-cells"; and that "it kills either by sudden paralysis of the musculo-motor apparatus of the heart, or owing to paralysis of the respiratory centre in the medulla oblongata." We advise Dr. Fournié to correct his statement in the next edition; and he might insert at the same time several new drugs, including butyl-chloral and chrysophanic acid.

The fourth book contains excellent drawings and descriptions of the parasitic fungi; and of the ento- and ecto-zoa attacking man. In the section on bacteria we miss any mention of the spirillum of relapsing fever.

Our readers may think that as we have found so many faults with it the book cannot be worth much after all. On the contrary, its defects are few compared with its merits. It seems to us that to be able to get a really good idea of the collateral sciences bearing on medicine without reading a dozen separate treatises is a great gain; and we are surprised that a book of this kind has not been written before. The illustrations are executed in that incomparable manner which our English engravers cannot at present acquire; and even these alone are worth nearly the very moderate price at which the volume is published. There are but few mistakes in the spelling of proper names, if we except Tood for Todd, Austie for Anstie, Wedd for Wedl, and one or two others. Dr. Ringer's name, as always on the Continent, is written Sidney, Ringer, as if he were two people. There is a separate index to the names of observers, and the subjects embraced by the work.

Letts's Medical Diaries.

Letts's diaries have for so long been the well-known and well-proven companions and aids of medical practitioners of all grades, that we need only say that this year they are as excellent, as trustworthy, and as convenient as ever. We will mention especially only two of the various forms published:—For elegance of "get-up" and convenience of size for the pocket, the "wallet, with four pockets, lined silk," and accompanied by a packet of "monthly" professional diaries, is admirable; and the large desk blotting-pad, with diary and pencil attached, is remarkably good, useful, and cheap.

Employment of Ipecacuanha in Labour.—In a paper bearing this title, Dr. Carriger, of Knoxville, Tennessee (*New York Medical Journal*, November), refers to numerous cases which he has met with during the last twenty years in which ipecacuanha has exerted decided oxytocic effects, given in one- or two-grain doses, and repeated if necessary (which was seldom the case) in half an hour. It appears, he says, to exert a co-ordinating influence over that condition of the uterus in which we have irregular action and protracted, agonising, and inefficient pains, conjoined with a rigid os uteri. In about thirty minutes the character of the pains changes, these becoming efficient, and succeeding each other at regular intervals as in a natural labour, and not resembling labour induced by ergot. "In a very large number of cases of rigid and undilated os, where every pain, for hours previous to its administration, had been accompanied by loud cries and jactitation, and irritability of temper, it has rarely failed in a few minutes to bring quiet and comfort, speedy dilatation of the rigid os, and regularly recurring and forcibly expulsive pains (these having had, indeed, in some instances, to be moderated by the aid of sulphate of morphia), an entire change in the character of the labour, and its speedy termination."

FOREIGN AND COLONIAL CORRESPONDENCE.

AMERICA.

Philadelphia, December.

Various Investigations regarding Yellow Fever.—The Public Health Association—The Yellow Fever Commission: Conclusions as to the Origin and Spread of the Fever; Details of the Epidemic at Grenada, Baton Rouge, etc.; Individual Views as to Causes and Modes of Prevention; The Sanitary Condition of New Orleans; Report embodying Conclusions of the Committee; Yellow Fever on board Ship; The Blood in Yellow Fever.

As a fitting sequel to the practical extinction of the yellow fever epidemics in the South comes the investigation recently made by the American Public Health Association at Richmond, looking chiefly to causes and the modes of prevention in the future. This body was in active, busy session for four days and evenings, commencing November 19, listening to reports and devising plans for sanitary improvement. Hitherto, in spite of its noble objects, the Association has been attended, in its annual sessions, by only a small but a zealous and devoted band of sanitarians; their proceedings were never placed *in extenso* before a mass of general readers, such as the newspaper press numbers; and the great public good for which these men strove was in a very slow and gradual process of diffusion, awaiting that popular appreciation and sympathy which seemed to be essential to the full accomplishment of the Association's aims. It needed an epidemic of unusual extent and virulence to awaken a general interest in it, and the gentlemen connected with it deserve hearty commendation for utilising, at the very moment when the epidemic visitation is making its impression on the nation, before the fever has lost its present claims on the sympathies of every section of the country, all possible and available materials of investigation. Hereafter this body will occupy a hold on the popular consideration which it has never before been able to secure. The lessons learned from the experience of this epidemic, as crystallised at this meeting, may be briefly stated, in lieu of a report in detail which might be less interesting and instructive.

The Yellow Fever Commission, appointed by the Surgeon-General of the Marine Hospital Service, divided their labours, so as to cover as great a field of inquiry as possible in the limited time before the meeting of the Health Association. The investigations of Dr. Cochran traced the fever to a case arriving at the end of May in the ship *Emily Sander* at New Orleans from the West Indies, and to another in one of the crew immediately afterwards. It is probable the fever extended from there to the citizens, although the Commission received a number of letters and statements to the effect that quarantine regulations had been violated by fruit vessels and other ships entering the port of New Orleans from infected ports. It was believed, so far as the brief time allowed of any formation of an opinion on the subject, that several cases of the fever had occurred in the city in June, under circumstances which rendered it altogether possible that they had been brought there by conveyances from outside. Cases were found to have occurred in series or groups, each case having connexion with some other, either by personal association or from exposure in the same locality. It was easy, in the early days of the epidemic, to trace out these individual cases; and the Commission took the trouble to prepare maps showing their exact location and the centres of diffusion; and this line of inquiry was pursued until the disease became so prevalent in the town that it was no longer instructive to continue the study of individual cases. By aid of these maps the sanitarian can observe the influence exerted in the same locality by occupation of such locality; how invariably yellow fever tends to arrange itself in groups of cases, and thus note its marked contrast with the tendency of malarial fever to occur in separate, disconnected, and totally independent cases. He can study also, in them, the influences of filth, bad drainage, or insanitary situations, and of elevations or depressions of surface. The Committee reported pretty much the same general character of neglect and violations of laws of health in all the towns they visited—such as imperfect drainage, inattention to

deposits of fetid matter and refuse, animal and vegetable matter, and inattention to the purity of drinking-water.

The conclusions unanimously arrived at by the members of the Commission, from the evidence accumulated up to the time of meeting of the Association, and reported by Dr. Bemiss, may be briefly stated:—1. They did not in a single instance find a case of yellow fever which they could justifiably consider as of *de novo* origin, or indigenous to its locality. 2. In most of the towns visited, which were points of epidemic prevalence, the testimony showing importation was direct and convincing in its character. 3. The transmission of the disease between points separated by any considerable distances appeared to be wholly due to human intercourse. In some instances the poison was carried in the clothing or about the persons of those going from infected districts. In other instances it was conveyed in such fomites as cotton-bagging, or goods of other description, or bedding and blankets. 4. Disinfectants were almost valueless, the physicians in infected towns, almost without exception, stating that they are useless as agents to arrest the spread of yellow fever, while some of them affirm that their vapours are seriously prejudicial to the sick. 5. Personal prophylaxis, by means of drugs or other therapeutic means, proved a constant failure; a few practitioners believing, however, in the preventive effects of small doses of quinine. 6. Quarantines established with such a degree of surveillance and rigor that absolute non-intercourse is the result, had effectually, and without exception, protected those quarantined from attacks of yellow fever. The Committee appointed to consider the report of the Yellow Fever Commission approved their conclusions, except that relating to disinfectants. They thought that in their investigations, however, they should endeavour to trace out the actual *materies morbi*, and suggested Havana, Cuba, as a fitting place for the study. Animals should be inoculated with the excretions or fluids from the sick; and this should be done directly, and also after the exposure of such matters to warmth and heat, or to admixture with other substances. If it was found possible to obtain any substance that would produce the fever, or its symptoms, this should be thoroughly investigated and studied, and probably, by a process of exclusion, a knowledge might be acquired of the nature of the *materies morbi*.

Dr. Cochran read a paper, giving a detailed account of the fever at Grenada, Mississippi, showing that the first case there was traceable to importation from New Orleans; that before this and other cases were fairly recognised as yellow fever cases they were called congestive malarial fever, bilious fever, and even jaundice. In the section of the town most exposed to malarial influences the disease was least fatal, although it was true that it was inhabited chiefly by negroes, who were only attacked late in the season, and had the disease lightly. When the disease was announced by its true name, the inhabitants fled to other cities and villages, and carried the seeds of the pestilence with them, but about a thousand went into camp, only three miles from Grenada, and escaped the infection. That town stands on on elevated plateau, and every rain washes the streets and gutters clean. The number of cases was 1040, out of a population of 2500; deaths, 326. Only five white persons who remained in the town escaped attack! The investigation at Grenada shows the intensely infectious character of the disease; persons who went to visit the sick nearly always carried the disease away with them. Dr. Bemiss showed that the disease at Canton, in the same State, where there were 919 cases and 120 deaths, was brought directly from New Orleans by one family. Dr. E. Lloyd Howard, also of the Commission, reported that at Baton Rouge there were 2435 cases, and probably 500 more that were never reported; that here the portions of the city in the worst sanitary condition were the last to become infected, and did not suffer more than more favoured localities. In some of the towns the mulattoes suffered more from the fever than full-blooded negroes. Holly Springs is 625 feet above the level of the sea, and was thought to be exempt from the fever, and refugees from infected places were allowed to come there; but 309 deaths occurred there, notwithstanding its apparently favourable altitude. Chattanooga is 750 feet above the level of the sea, and here the percentage of white mortality to cases was 46, coloured 10·7.

Papers were read giving individual views as to causes and modes of prevention, some arguing in favour of local origin of the fever, others favouring the importation theory and a national quarantine. Some contended that the disease is the result of living germs, the nidus of which is deposited in filth; others proposed to exterminate the germs in ships by the freezing process. Details were given, exhibiting the communicability of the fever from ship to ship; showing that on a United States vessel upon which fever had prevailed, after being laid up for two or three winters, fever was again developed. Some maintained that the fever can be kept out by proper quarantine, and that it is not contagious by person—at least, not in some latitudes; etc. In the discussion that ensued it was stated that on board ship steaming the hold had exerted an excellent effect in killing the fever; that the home of the disease has never yet been discovered; that it is certainly not indigenous to Brazil, and perhaps not to the West Indies; that the sick should be removed from their houses, and their bedding and clothing burnt; that the sanitary condition of a city has little or no effect in checking the fever, the latter being most virulent in the cleanest and purest sections, while the dirty and filthy portions were comparatively exempt; that disinfectants were sometimes efficacious; that in some places those who attended the sick did not get the fever; that the Pullman sleeping-car had been instrumental in spreading the disease, yellow fever patients sleeping in the berths through distances of hundreds of miles; that very few physicians in the South now hold to the theory of non-contagion; that cleanliness was really a fever preventive or paliative, internal sanitation, segregation, and deportation of population, etc., being the important hygienic elements; that most of the so-called cleanly places where fever prevailed were probably filth-saturated below the surface; that there should be absolute non-intercourse with infected countries from April to November; etc.

The Association was fortunate in having so excellent and proficient an army officer as Colonel Hardee as a member of the Commission. He gave a brief description of the position and topographical surroundings of New Orleans, showing conclusively, from the swampy nature of the land in its immediate vicinity, the low level of the city, etc., the peculiar conditions of adaptedness for the invasion of such an epidemic. The drainage is performed by four draining-machines, which are located in a basin of low, open swamp lands, to which point all waters from rains or otherwise accumulated are pumped across and through the intervening ridge into the basin of the lake. This system of drainage only embraces, however, one-half of the superficial area within the city limits. The machines are operated by both steam and water power, but the system is totally inefficient to produce a good and satisfactory sanitary condition of the city, on account principally of the want of satisfactory reservoirs to hold the accumulated water before it is entirely discharged. A thorough reconstruction of the whole system is now being effected, by which covered sewers will take the place of the present open drains, which are not only offensive but breeders of disease. The privy-vaults are so constructed that the water, which is generally within two feet of the surface, causes a leakage through the walls, and excremental matter percolates through the surrounding soil, and during the heat of summer a great quantity of deleterious gases is exhaled from the surface. This will be corrected when underground sewers can be established, and the refuse matters taken off through these new channels. It is proposed that during the summer the streets of the city shall be irrigated by the water from the Mississippi river, which from May to August would flow of its own accord through pipes connecting with the river, the water during that period being higher than the gutter-ways of the adjacent streets; during the remainder of the year water being supplied for the same purpose by stationary engines along the river-bank. Colonel Hardee stated that this recent epidemic was more virulent, and prevalent to a greater extent, in parts of the city that were entirely paved and well drained, than in those parts where it was proved that garbage was thrown upon the streets, and in the immediate vicinity of the lowest canals and drainage reservoirs. Dr. Chappin, of New Orleans, advocated an absolute non-intercourse between New Orleans and tropical ports from which the fever might be imported, from May to September inclusive. Looking at the matter in a pecuniary light, the estimated loss to that city from this epidemic has been about $12,000,000; while the annual loss to trade by closing the port to vessels from the West Indies would be at least $1,500,000. He was

opposed to the interference of the National Government in the establishment of a national quarantine, and thought there was great risk that officials appointed in this way might be bribed by the importing interests.

Dr. Billings, as chairman of the Committee appointed to embody the conclusions derivable from the discussion of the various subjects entertained, reported the following:—1. Yellow fever is a specific disease, not indigenous or originating spontaneously in the United States, and its appearance in this country is always due to a specific cause. This was amended so as to restrict this conclusion only to the epidemic of 1878. 2. Quarantine established with such rigor and precision as to produce absolute non-intercourse will prevent the importation of the specific cause of yellow fever. 3. It is the duty of the General Government to aid in the establishment of a practical and proper quarantine by all means in its power. 4. It is the duty of the General Government to appoint a commission of experts to make a thorough investigation into the causes of yellow fever, and the best methods of preventing its introduction into this country, and to make such an appropriation as will permit of the securing the services of the best men, etc. 5. It is the duty of the General Government to invite foreign nations to co-operate with it in the establishment of uniform and effective international quarantine regulations. 6. Whatever may be the practical value of quarantine, there is no doubt of the importance and value of internal sanitary measures in the prevention or modification of epidemic yellow fever; and this Association strongly urges upon state and municipal authorities the great amount of responsibility which rests upon them on this account at times when no disease is prevalent or threatening.

Dr. A. L. Gihon, of the United States Navy, gave expression to what he believed was the unanimous sentiment of the medical officers of that service, in the following statement of views as to sanitary matters on shipboard. He contended that a yellow fever ship is always a foul ship; that foul vessels, while often generating by their filth other endemic diseases, have never yellow fever *de novo*; that when a foul ship visits a port where yellow fever prevails, communications with the place will cause the development of yellow fever aboard that ship; that a clean ship, however, may visit a port in which yellow fever is prevalent, and by vigorously abstaining from communication of any kind with that port, will escape yellow fever contamination. When yellow fever appears on board a vessel, the only safety for the crew, he states, is to get them out of the ship; and the sick can also be removed from the vessel with entire impunity to those among whom they are removed. Nurses and attendants upon those sick with yellow fever aboard ship are not more liable than other occupants of the vessel to contract the disease. When that fever appears on board a vessel, it is possible to imprison it by battening down the hatches, carefully caulking every possible outlet for emanation from the hold and lower decks, and by requiring the crew to live and sleep in the open air and on the spar deck, and abstaining from using food, water, clothing, etc., which has been below. If the vessel is removed to a place where bad sanitary conditions prevail, and any of its contents are discharged, it will inevitably disseminate yellow fever. It is believed that in places to leeward currents of air from such an infected vessel will cause the appearance of yellow fever in such places. Freight, food, baggage, clothing, etc., cannot be safely removed from infected vessels until they have been exposed to the prolonged continuance of extreme cold weather; and no vessel on which yellow fever has prevailed can be safely re-inhabited until after such exposure. It is believed, but not entirely demonstrated, that permeation by dry hot air or by steam will destroy the germ of the disease. It is the belief of the surgeons of the navy that yellow fever is due to a specific living germ, the vitality of which may be impaired or destroyed by extreme cold, and which rapidly propagates itself when deposited in a nidus of visible or invisible filth.

National interposition in behalf of the establishment of quarantine is solicited as the only reasonable mode of protection from future invasions of the disease, inasmuch as seaboard quarantines, as far as the Gulf of Mexico is concerned, have been inadequate to prevent the spread of the fever. Inland quarantine seems almost impracticable as a universal preventive. The deliberations of the Association were presided over by Dr. Elisha Harris, of New York, of whom it was said that "his life-long and zealous devotion to sanitary studies, and unwearied labours for the improvement of the public health, have won for him golden opinions from the votaries of sanitary science all the world over."

In conclusion, I may state that Professor Joseph G. Richardson, of Philadelphia, read an interesting and valuable paper on the results of microscopical investigation of the blood of yellow fever patients. He found that the urine of yellow fever patients exhibited a very rapid degeneration and desquamation of the tubal epithelium. The tubules and Malpighian tufts of the kidneys were greatly clogged with minute organisms. They were so numerous as undoubtedly to have hindered the excretory process. In the blood he had uniformly found many dumb-bell bacteria (*bacteria sanguinis*). He was of the opinion that a thorough saturation of the system with an atoxic parasiticide, if such could be found, would be of great therapeutic value.

There has been some disappointment expressed that the Association did not present some practical proposition for the prevention of future scourges of yellow fever; but it must be remembered that the epidemic was scarcely extinct when the Association met to discuss reports hastily but ably prepared; and that the lessons of the epidemic are not yet in perfect shape for study. I see already indications of a commercial feeling in New York that the establishment of strict quarantine regulations would destroy the trade of that city with the West Indies. This will be one of the great difficulties with which sanitarians must inevitably contend in the establishment of national quarantine regulations—the contest of commercial pride and the power of moneyed interests with rational legislation on matters of the most vital importance to the health of individuals and communities. Congress met only last Monday at Washington, and had hardly been in session an hour before resolutions were introduced opening the whole subject for discussion.

INSPECTOR OF ANATOMY.—The offices of the Inspector of Schools of Anatomy is now situated at 2, St. Martin's-place, Trafalgar-square, a far better and more convenient locality than the old rooms in York-buildings, Adelphi.

THE LATE MR. FREDERICK WARMINGHAM BEST, OF STANNINGLEY.—The funeral of this deeply lamented gentleman took place in the New Cemetery yesterday, and was attended by a wide circle of sorrowing friends and former patients, by whom he was generally beloved and respected. His illness (a chest affection) had only been of a few days' duration; and although everything was adopted that his medical *confrères* could suggest, it proved rapidly fatal. Mr. Best was a widower, fifty-four years of age, and had pursued unostentatiously his benign and useful career in Stanningley and neighbourhood for nearly twenty years. He was a Licentiate in Surgery and Midwifery of the Glasgow Faculty, and of the London Apothecaries' Company, also a member of the British Medical Association, and, we may add, only brother to the present distinguished organist of St. George's Hall, Liverpool.

NEW REGULATIONS FOR FOUNDLINGS IN PARIS.—As a consequence of the agitation that has prevailed in France for the re-establishment of the *tours*, or receiving boxes for foundlings, as a means of diminishing the increasing number of infanticides, the Conseil-Général de la Seine has resolved (*Gazette Medicale*, December 21) to adopt the proposition in principle. In order, however, to obviate the dangers and inconveniences that attached to the former *tours*, it has been resolved to substitute for them an office, open day and night, and communicating easily with the public street. *Employés*, sworn to secrecy, will be always in attendance to receive the infant from its mother or her substitute. In this way, the danger to the child from exposure to cold is avoided, and its future identity will be more readily secured. It is also contemplated to establish special *hospices*, to which women will be allowed to resort two months prior to delivery, without being obliged to disclose their names, furnishing it and their address in a sealed envelope which will only be opened in the event of their death. Moreover, it is projected, in order to encourage maternal suckling, to send newly delivered women, married and unmarried, to convalescent *hospices* until they are able to suckle their infants in a suitable manner, assistance being afterwards given them to enable them to continue this until the period of weaning.

GENERAL CORRESPONDENCE.

THE BRITISH MEDICAL BENEVOLENT FUND.

Letter from Dr. Broadbent.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have again to trespass on your space to acknowledge the following additional subscriptions and donations to this Fund:—

	£	s.	d.
Dr. Addy, Pendleton (subs.)	1	1	1
Dr. Coupland Taylor, Shrewsbury (subs.)	2	2	0
Dr. Frank, Cannes	20	0	0
H. Macpherson, Esq., St. James's-square, per J. T. Mould, Esq.	5	0	0
Sir Thos. Watson	10	10	0
Sydenham District Medical Society, per Dr. Galton	52	10	0
Anonymous, per L. M.	0	10	0
James Hughes, Esq., Middlewich (subs.)	1	1	0
Dr. Geo. Johnson, F.R.S., Savile-row	5	5	0
Dr. Cahill, Albert-gate	5	5	0
Dr. Haviland, Leinster-gardens	10	0	0
Various contributions per Dr. Holman, Reigate	9	5	0

It is with great thankfulness that I see the Fund prepared to meet the numerous applications which will come before the Committee at the next meeting.

To the poor widow I was enabled to give 45s. instead of £1 as I had promised; and small as this sum may appear, it makes an enormous difference to the Christmas of her family. On the previous Christmas she and her youngest boy, at home from an orphan school, spent a great part of the day crying together because there was no dinner.

I am, &c., W. H. Broadbent, M.D., Treasurer.

34, Seymour-street, Portman-square, W.

MANUFACTURED DIPLOMAS.

Letter from Professor Zweifel.

[To the Editor of the Medical Times and Gazette.]

Sir,—Having a short time ago heard that a Dr. E. Sturman, 82, Finsbury-park-road, London, offered diplomas of doctorship of our University, we feel ourselves bound to prevent by all means such an abuse.

Nobody being authorised to offer diplomata of our University, we must call all such advertisements illegal and unwarrantable. The academic degrees are only to be acquired here by presenting a correct scientific dissertation, and by passing an examination conducted in the German language. The notice of the above-mentioned advertisement was announced to us by Mr. B. Templar, F.R.A.S., Holly Bank School, Southport, England. The aim of this denegation is to request you to publish it in the *Medical Times and Gazette*. I am &c., Professor Dr. Zweifel,

Dean of the Faculty of Medicine at University of Erlangen, Dec. 30, 1878. Erlangen, Germany.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, December 4, 1878.

Charles West, M.D., F.R.C.P., President, in the Chair.

The following were elected fellows of the Society:—W. J. Vereker Bindon, M.D., Benjamin Browning, Arthur Flint (Westgate-on-Sea), Rustomjee Naservangee Khory, M.D. (Bombay), Walter C. James, M.D., Jas. C. P. Muir, Frederick Nicholls, and Albert C. Butler Smyth (Brighton).

Placentæ of Twins.

Dr. Edis exhibited the placenta from a case of twins which were prematurely expelled about the fifth month. It was small, flaccid, much firmer than usual, very thin, and had several curious cup-like cavities distributed over the surface, containing firm blood-clots about the size of hazel-nuts. There was a history of syphilis in the husband; and the patient had had three previous miscarriages. He also showed another placenta from a case of twins prematurely expelled about the sixth month, where there was an enormous amount of liquor amnii—as far as could be judged, about two gallons. These were two distinct amniotic sacs, the first containing at least double the quantity of the second. No history of syphilis was detected.

Medullary Sarcoma of Cervix Uteri.

Dr. Galabin showed microscopic sections of a medullary sarcoma of the cervix, a rare form of growth in that situation. The growth had all the clinical characters of cancer in the early stage, and bled readily on touching, but the uterus was quite movable, and there was scarcely any ulceration. On removal, a milky juice could be scraped from the cut surface, containing small cells in profusion.

Abnormal Placenta.

Dr. Godson showed a placenta to which the umbilical vessels were peculiarly distributed—the condition known as *insertio valementosa*. There were also two separate placentæ, very small—*placentæ succenturiæ*. The specimen had no clinical interest.

Adjourned Discussion on Dr. Roper's Paper.

After a short abstract of this paper on Anteflexion had been read, the discussion was resumed by

Dr. Bantock, who deprecated the introduction of new names without sufficient warrant. He failed to see what information is conveyed by the term "antecurvature," which is not already signified by that of "anteflexion." He did not share Dr. Roper's views as to the characters which serve to establish the differential diagnosis between congenital and acquired anteflexions. After dwelling on the value of the intra-uterine stem in the treatment of these displacements, he expressed his opinion that Dr. Roper was too exclusive in giving his undivided support to the treatment of the dysmenorrhœa by means of graduated bougies. He believed the operation of division of the cervix, instead of being dangerous and unwarrantable, to be one to be performed with as much impunity as any operation. He referred to division bilaterally—that is to say, partial division of the whole length of the cervix, and on both sides,—the treatment after the operation being of great importance. To sum up, he would at an early period use the sound, tent, or bougie; at a later stage the intra-uterine stem; but when the dysmenorrhœa is very severe, and the flexion very acute, and there is evidence from physical signs that there is constriction of the internal os, then he would have recourse to the operation of the division of the cervix, followed by the intra-uterine stem.

Dr. Wynn Williams did not believe in the existence of an internal os; he considered the diameter of the uterine canal of the same calibre throughout, the point of juncture between the body and the neck being nothing more than an isthmus. He strongly deprecated division of the cervix, an operation from which many deaths had resulted. He had found the treatment of anteflexion by bougies both tedious and unsatisfactory, while he had observed great success follow the insertion of a vulcanite stem supported on an indiarubber shield. He had treated a case of epilepsy, which he found associated with acute anteflexion, by this means: a complete cure resulted.

Dr. Lang testified to the success obtained in this case, the patient having been previously under his care.

Dr. Daly mentioned a case of severe convulsions resulting from one of these pessaries introduced by Dr. Wynn Williams.

Dr. Henry Savage believed congenital uterine deviations to be utterly rebellious against treatment in any form. It was the duty, therefore, of the practitioner to first ascertain whether the flexion be congenital or acquired. There were many forms of congenital deviation—congenital retroflexion, often adherent to the rectum; lateral deviation; the womb imperfectly developed, and so fixed between the folds of the broad ligament, etc. The off-hand surgical treatment of uterine cases in the consulting-room was a grievous error; and the same treatment in congenital cases was an error still more blameable. Years ago he had reported to the Society nine deaths, seven after the employment of the hysterotome, and two after the use of stems.

Dr. Routh discovered nothing new in Dr. Roper's division of anteflexions into congenital and acquired. It was indubitable that the grand cause of sterility among women was

anteflexion. To cure this, therefore, was to cure sterility. It had been stated that stems were dangerous. This might be true in regard to the antiquated, stiff, long instruments; but if the new shorter ball-and-socket stems were used with caution, no greater error could be asserted. He had employed these very frequently, and had obtained the most satisfactory results therefrom.

Dr. PLAYFAIR expressed his regret that such differences of opinion should exist on points of such practical consequence. He considered it as great a mistake to decry mechanical treatment as it is to rely too exclusively upon it. He was satisfied that there are a large number of cases both of retro- and anteflexion which are quite unmanageable except by mechanical supports, and which are readily and permanently relieved by the judicious use of pessaries. There are many other cases in which some morbid condition is associated with the flexion, such as endometritis, or areolar hyperplasia, in which, although mechanical support may give temporary relief, it cannot effect a permanent cure; and to rely on it alone is a fatal mistake. Again, there are some cases in which the uterus is totally unable to bear mechanical treatment, and in which such is altogether inadmissible. There is also a third class of case —how numerous no one can say, but certainly not very rare —in which the uterus is most abnormally twisted without any kind of evil resulting. If this more broad view of uterine disease were taken, he could not but think that the somewhat humiliating differences of opinion which the opponents of gynæcology are apt to sneer at would no longer exist. After trying many forms of anteflexion pessary, he had come to the conclusion that Hewitt's cradle pessary was the best, but it still left much to be desired, and an anteflexion pessary as efficient and as generally useful as the Hodge is found to be in retroflexion is still a great desideratum. Although he used a stem now and again in intractable cases, he never did so without fear and trembling, and never unless the patient was under constant supervision.

Dr. ROGERS had many years ago given the dilating bougies a fair trial in cases of severe dysmenorrhœa, but with indifferent success, for, though benefit was obtained for a time, it was not permanent. He then tried the hysterotome, but with anxiety and caution, and here he obtained very great success; in almost every case relief was permanent, and many became mothers after years of sterility. Out of some hundreds of cases he had only lost one patient, death resulting from peritonitis. During the last two years he had used Dr. Williams' stem-pessary with very good results. He always applied leeches to the cervix on two occasions before he inserted the pessary, to allay inflammation.

Dr. HEYWOOD SMITH showed a section of an anteflexed uterus which he had made, from which it would be seen that there was scarcely any difference in thickness in the anterior and posterior walls. He considered that congenital anteflexion was the most frequent source of dysmenorrhœa and sterility. For the treatment of this he was of opinion that dilatation afforded only temporary relief. He was in favour of excision to a slight extent, combined with forcible dilatation.

The PRESIDENT said that since he had ceased to hold any hospital appointment his opportunities for comparing the utility of different forms of pessaries, or other instruments for the support of the uterus, had, of course, been limited. In any case, however, the first question was whether the symptoms of which a patient complained were due to the existence of a flexion of the uterus, or whether the uterine flexion was an accidental complication in itself, producing no symptom whatever. He agreed entirely with Dr. Playfair as to the importance of determining the nature of a flexion, for in those cases (and they were not very rare) in which the flexion was associated with an undeveloped state of the uterus, he doubted much whether anything was gained by the mere removal of the flexion, while the apparent benefit obtained in such cases by the removal of the flexion or the employment of intra-uterine supports is probably not due to the merely mechanical action of the instrument, but to a sort of stimulating influence on the uterine tissue generally—such, for instance, as gives rise to the hypertrophy of the uterine tissue when a fibroid is developed in the substance of the organ. With reference to the case of alleged epilepsy referred to by Dr. Wynn Williams as having been cured by the reposition of a flexed uterus, the case appeared to him to be wanting in all those exact and minute details which are absolutely necessary to justify any positive conclusion. In former days he had seen much suffering and grave inflammatory mischief produced by intra-uterine stems. The recent improvements, by which they were made shorter and movable instead of fixed, might probably have lessened both risks, but he could not but consider the condition of any patient wearing an intra-uterine stem as one calling for close and careful watching.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 17, 1878.

CHARLES MURCHISON, M.D., LL.D., F.R.S., President, in the Chair.

THE FUNGUS OF FAVUS AND OF RINGWORM.

DR. HOGGAN showed microscopical specimens and drawings illustrative of the minute anatomy of favus and ringworm, and especially of the differences that exist between the fungi in the two diseases. The tinea was chiefly examined where it affected the hair, inasmuch as the hair had a definite and more simple structure than the skin. As long as the cuticle of the hair, which consisted of a single layer of imbricated cells, remained healthy, the hair appeared intact, but when the cuticle was broken the hair perished. The first stage in the involvement of the hair was that the fungus found its way under the cuticle. The shaft of the hair was a solid tube composed of long cells around a central cavity and medulla. In the first stage of ringworm of the hair the fungus propagated itself in the cuticle to the depth of a single spore only, and its growth was chiefly along the hair, and not around it. In the second stage of the disease, the spores, having grown larger in their bed, burst the cuticle from the shaft, the latter being thus exposed, and, in its turn, attacked. The fungus here distributed itself in rows or sheets, and "brushes" of the shaft were thus separated and broke away. In favus the fungoid element had its seat in a different part of the skin, being not in, but under the epidermis, between it and the dermis, and raising it into "cups" characteristic of the disease. The dermis was then attacked. The appearance of the spores of the favus-fungus under the microscope was like that of a large vegetable; and no lines of spores were to be seen as was commonly represented. The plant propagated itself by budding, and the appearances due to that process were easily seen, the spores becoming elongated, constricted in the middle, and flattened at the extremities at the points of mutual contact. Altogether, it was evident, from the histology of favus and of tinea, that the former must be the less amenable to treatment.

The PRESIDENT asked in what way the spores of favus found their way under the epithelium.

Dr. HOGGAN replied that he had not determined this point.

RODENT "CANCER" OR "ULCER"?

Dr. TILBURY FOX and Mr. THOMAS C. FOX showed microscopical specimens and drawings illustrative of the histology of rodent ulcer. Dr. T. Fox stated that the object of their paper was to show—firstly, that rodent cancer was a phase of epithelioma; and secondly, that in the specimens they had examined the growth originated in the external root-sheath of the hair-follicles—*i.e.*, in the inverted rete mucosum. They had been careful to select undoubted cases of rodent cancer of the nose. Of the three cases examined, one was of eighteen years' duration, and had been under several of the leading London surgeons. A second case was of twelve years' duration, and its nature had been recognised by acknowledged authorities. And a third case was a perfectly typical ulcer of the size of a sixpence, of nearly five years' duration, which had never been treated. Having thus established the undoubted nature of their cases, the authors also had in view the object of ascertaining the earliest possible stages of the disease, because very early in the disease all certain indications of its primary anatomical origin were lost. They accordingly selected a very young ulcer, a tiny recurrent nodule, and the circumferential edge of skin immediately bordering a cicatrix in which the disease was recurring. Having referred to Dr. Warren's monograph for the purpose of saying they in the main confirmed his observations on the fully developed disease, the authors gave the following account of its development:—Cancerous buds sprout

out from the external root-sheath of the hair-follicles in solid masses of cells resembling those of the young rete, the bordering ones always retaining their columnar form. These buds at first push the adjoining structures *en masse* and indiscriminately before them, and the irritation they excite causes increased vascularity, new formation of capillaries, hypertrophy of various textures such as the rete, and the profuse escape of leucocytes into the perivascular lymph-tracts, with pushing aside of the tissues. As the cancer mass grows it splits into finer processes, which spread in the direction of least resistance—*i.e.*, in the tracts occupied by the leucocytes. The disease progresses not in any system of vessels such as Küster figures, but this appearance is due to the growth honeycombing between the vascular (lymphatic and blood) network. The growth obliterates in a great measure the blood-supply, and the textures atrophy; but in the alveolar form very considerable stroma is left, and in this form, from the consequent increased pressure, "nests" are far more common than in the tubular form. The specimen exhibited showed the "nests" far too abundantly to be accounted for by merely collapsed hair-sheaths or ducts. The authors further stated that they would not deny that the disease might originate in other epithelial structures, but in the specimens they had examined it did not. After referring to the mass of clinical evidence in favour of the view they took, such as the many transitional cases between the typical rodent and epithelial cancer, the assumption of an epitheliomatous form by what was at first a typical rodent, and so on, the authors concluded by affirming that rodent cancer must be considered a very slowly growing, small-celled phase of epithelioma, which originated, certainly in the cases under examination, primarily in the external root-sheath of the hair-follicles. The reason why these very slowly growing cancers so rarely infected the glands, and secondarily infiltrated internal organs, was that there was an utter absence of activity about the cancer-cells, which were formed from pre-existing cancer-cells at the border of the processes, and not from leucocytes; and this prevented them from wandering, coupled with the fact that the growth blocked and obliterated the lymph- and blood-vessels in its progress.

The PRESIDENT pointed out the difference between the conclusions just reached by the exhibitors and those of Dr. Thin, who had described rodent ulcer as very different from epithelioma.

Dr. THIN said that, in his opinion, four of the specimens exhibited under the microscope were sections of typical epithelioma, and not of rodent ulcer at all. A fifth specimen was one of typical rodent ulcer, although it did not exhibit well the characters of that disease. Other sections presented appearances familiar to all who had examined rodent ulcer. As rodent ulcer progressed, the epithelial structure gave way before it, the hair-shafts especially falling out, and the root-sheath making attempts to produce fresh hairs, one, two, or three, which never were fully developed; the parts where these changes occurred never, however, becoming continuous with the rodent ulcer proper. The specimens showed well the chief difference between rodent ulcer and epithelioma—the rodent ulcer being very difficult to identify, while epithelioma could be recognised at a glance. Rodent ulcer cells were, further, very perishable. With respect to the "limiting membrane" of the masses of disease, it was not capillary wall, but an independent structure, the existence of which was of the greatest importance, inasmuch as it was an evidence of their glandular nature. He had himself lately obtained some excellent specimens of the membrana propria, by teasing portions of rodent ulcer that had been steeped in a solution of bichromate of potash. With respect to the question why the lymphatic glands were not infected in rodent ulcer, he believed that rodent ulcer was a disease radically different from epithelioma, where infection was almost certain. That non-infection must depend on the less infective qualities of the rodent ulcer cells; and this fact showed their radically different nature. Thiersch had described a variety of rodent ulcer in which cavities were found—the remains of blood-vessels, etc. Dr. Thin said he believed that if a section were well made of a specimen of either disease—rodent ulcer and epithelioma—the most ordinary skin histologist would be able to see the difference.

Mr. BUTLIN said that he agreed in the main with Dr. Thin's observations; but the "alveolar form" of rodent ulcer was, in his opinion, simply epithelioma. He believed himself that, as Dr. Thin said, the disease in rodent ulcer began in the sebaceous glands, and that it was more of the nature of a hard cancer than an epithelioma. Why it existed for so long without affecting the constitution was an equally difficult problem to solve, by whatever name it might be called—carcinoma, adenoma, or epithelioma.

Mr. LISTER said that it was perfectly clear that the chronic course of rodent ulcer, and the non-infection of the glands, could not be explained histologically, for the characters varied greatly in different specimens. He had seen a case corresponding to rodent ulcer clinically, in which even prickle-cells were found on microscopical examination.

Mr. HULKE said that, from a clinical point of view, he quite agreed with Dr. FOX, and he believed that rodent ulcer was a form of epithelioma. Cases were seen which, after beginning like typical rodent ulcer, modified their characters and became epithelioma. He had great difficulty in saying why infection varied so much; but it must be remembered that typical epithelioma might last for ten years without any infection whatever. A case was under his care in the Middlesex Hospital, in which a woman suffered from an ulcer of the back, extending from the scalp to the waist. The disease began with an injury to the scar of a burn in childhood, as a wart which grew to the size of the hand. Five years after the removal of this the disease recurred; and again and again, until it had now all the ordinary characters of epithelioma. Yet no gland was infected in this case. At this Society a few years ago he had shown a hand that was destroyed by epithelioma involving all the tissues. The disease had existed for years, yet no gland was involved. There were, therefore, different kinds of epithelioma.

Mr. HUTCHINSON said that Mr. Hulke had not stated the characters by which he would distinguish "rodent ulcer" from "epithelioma." Did he mean that the one growth had a hard edge and the other a fungating edge? Clinically, he would himself agree with Mr. Hulke. The rival opinions that had been stated probably differed less from each other than they appeared to do. The rodent ulcer probably took the place of epithelioma in the situations where it occurred—namely, on the upper part of the face; while it did not affect the glands, and had a smooth and hard edge, though certain specimens fungated largely, as he had seen in a chronic case in the orbit where the glands perfectly escaped. It was necessary to study every part of the body separately, and every part of the surface separately. Epithelioma of rapid growth was generally near or on mucous surfaces, near the orifices of the body, on the prepuce or glans of the penis, or between the fingers or toes. But he submitted that malignant growths on other parts of the skin—even on the trunk, where the skin was hard—ran a peculiar course, not tending to affect the glands; and that in this category scar-tumours were to be included. The clinical characters must not be neglected in such inquiries.

Mr. HOWSE said that four or five cases of the disease clinically known as "rodent ulcer" had all shown undoubted evidence, histologically, that they should be called epithelioma. In two other cases there were appearances rather opposed to this view, for no epitheliomatous structure was to be found in them; but, instead, the subdermal tissues were full of cells, disintegrating and giving rise to an ulcer. In these cases the history extended over eighteen and twenty-four months respectively. Remembering that in such specimens other cells besides epithelial cells were to be found, Mr. Howse suggested that in some of them rodent ulcer began as an infiltration with lymphoid cells. Slow growth and non-infection might be said to be equivalent to rodent ulcer; and, taking such a definition, the earliest stages probably presented a simple infiltration of cells which tended to grow into the epithelial form, thus producing an epitheliomatous appearance.

Mr. HULKE replied to the remarks of Mr. Hutchinson, that with him the test of rodent ulcer had been not infectiveness, but narrow, indurated edge, and flat, glossy surface. Epithelioma was characterised by a large, warty, uneven edge, and wider surface, with crops of the disease in the neighbourhood. If the test between the two diseases were to be infectiveness, he should be in difficulty, for some specimens of large warty growth upon the trunk might not infect.

Dr. SANGSTER said that Mr. Howse's remarks might serve

to explain the divergence of opinion upon this subject. But for the expression "lymphoid cells" used by Mr. Howse he would himself substitute the expression "adenomatous growth." Further, in a chronic growth the rete was sure to become involved. This might account for the fact that some of the cases of rodent ulcer became epitheliomatous, just as happened in warts and sores, and with lupus in certain instances.

Mr. Robert Parker said that he had examined many specimens of rodent ulcer, and could find no tangible difference between this and epithelioma. The border of the growth would be partly normal and partly diseased; but it was impossible to say how much of the change was due to the process proper, and how much to its effects. He had not succeeded in determining the original seat of the growth, but it was obviously in some epithelial region beneath the epidermis. The lymphoid cells were probably due to down-growth of foreign epithelium and their consequent spermatic influence.

Mr. Amphlett said that the specimens of the disease that he had examined confirmed Dr. Fox's views. With respect to the seat of origin, he was convinced that this was never the rete, although in some specimens he had seen prolongations from the hair-follicles passing into the growth. He believed that it generally started from the hair-follicles. There was a variety of cases of so-called rodent ulcer; and he was inclined to believe that there were two forms of it —the one chronic, and the other more acute.

Mr. Golding Bird said that he had examined a specimen of rodent ulcer of six months' duration which had twice recurred in the upper part of the face. In this specimen he found only what Mr. Howse had described—that is, what might be found in any chronic ulcer. The same appearances presented themselves in the second growth. The third growth had not been examined. If this were really a specimen of rodent ulcer it supported Mr. Howse's view, viz., that the disease began with a number of small cells. In two other cases of rodent ulcer he had failed to find anything like epithelial "nests." A fourth case seemed to show a border-land, being in the deeper parts much as described by Dr. Thin, whilst on the surface there were prolongations running downwards from the epidermis, and epithelial "nests."

Dr. Tilbury Fox, in reply, said that as the time of the Society was so nearly exhausted he would only refer briefly to three chief points. Firstly, referring to the clinical descriptions of rodent ulcer given by Brodie, Hutchinson, Hulke, and others, he stated that the cases upon which the observations in the paper were based were undoubtedly typical instances of rodent ulcer such as these gentlemen described, and, of course, of which he had enjoyed large experience. Secondly, that being the case, he was delighted to hear Dr. Thin say that four of the specimens under the microscope were undoubtedly those of true epithelioma. That was exactly what was contended, that rodent ulcer was an epithelioma, the specimens being taken—the four specimens referred to by Dr. Thin—from a typical rodent ulcer. Thirdly, as to the other specimen, said to show only degenerate hairs, he would hand to the President a drawing of a portion of one of these so-called degenerate hairs, which showed that they were distinctly epitheliomatous growths, and even contained "nests."

Encephaloid Cancer of the Scapula.

Mr. Lister exhibited a specimen of this comparatively rare disease, in which an exceedingly delicate stroma formed meshes containing cells. It also showed "suppuration" of cancer, the cells of the "pus" being, however, "cancer-cells," but quite healthy, and not degenerated, and the condition looking like a "malignant suppuration." He entertained considerable doubt as to whether the distinction between "sarcoma" and "true cancer" was of great importance. For example, this case had occurred on the top of the shoulder. When first removed there was no carcinomatous arrangement, but in the recurrence it was found. If cancer originated in epithelium, how could it develope in the top of the shoulder? The subject of the disease was a woman of twenty-six, who had suffered from a visible tumour of the scapula for two years, beginning distinctly as a small growth movable under the skin, and growing with moderate rapidity. A provincial surgeon having tried in vain to remove the growth, it was seen by Mr. Lister, who found it extending forwards towards the clavicle and adherent to the scapula. It was removed along with a square bit of the latter bone. For eight months the patient continued to have use of the arm; but the growth had now returned lower down in the soft parts, not in the bone.

Cancer implicating Bone.

Mr. Lister also showed this specimen. A man of thirty-two had suffered from the age of six from a sore over the tibia which refused to heal, and which assumed an epitheliomatous aspect after injury. The disease having commenced in the soft parts, and implicating the bone secondarily only, its removal was attempted without amputation. The bone was found to be affected superficially only; and half an inch of perfectly sound bone was, therefore, removed with gouge and hammer, while the soft parts were swept away. The operation had been performed three weeks ago; but already masses of an epitheliomatous appearance had become visible in the wound, and amputation had accordingly just been performed.

NEW INVENTIONS AND IMPROVEMENTS.

JOHN WYETH AND BROTHER'S PREPARATIONS.

A number of special forms of medicines prepared by Wyeth and Brother, of Philadelphia, have lately been introduced into London, which well deserve the attention and consideration of the profession.

DIALYSED IRON.

This is a beautifully clear and elegant preparation, and appears to be very stable and trustworthy. It is said to be considerably stronger than most preparations of dialysed iron, as it contains in the fluid ounce more than twenty-four grains of the salt of iron; it is inodorous, has no styptic or otherwise disagreeable taste, and does not discolour the teeth. In fact, so far as we have been able to test it, it appears to be what is claimed for it—a neutral concentrated solution of ferric oxide in the colloid form. It is so free from irritating properties of any kind that it has been very successfully employed hypodermically, without exciting any disagreeable local effect. Whether or not dialysed iron will prove to be as valuable a medicine as has been stated, has yet to be determined, we think; and the question of its value as an antidote to arsenical poisoning must also be considered to be still *sub judice*; but at any rate Wyeth's preparation of it appears to be an exceptionally good one.

COMPRESSED TABLETS AND PILLS.

These are admirably well-made small hard masses, containing nothing but the medicine the name of which each kind bears; that is to say, they are not diluted and made up with sugar, gum, or any other vehicle. Each tablet or pill contains five grains of bicarbonate of potash, bicarbonate of soda, chloride of ammonium, or chlorate of potash. They dissolve slowly in the mouth; and this mode of giving chlorate of potash will be found especially useful in affections of the mucous membrane of the mouth and fauces.

PEPTONIC PILLS.

These consist of pepsin and pancreatine, with lacto-phosphate of lime and lactic acid. Each pill contains one grain of pure pepsin and one grain of pure pancreative, giving a full dose of each ingredient, without the additional bulk of any sugar. This form of administering these medicines is a very convenient and not unpleasant one, and is said to be unusually effective.

King's College Medical Society.—At the meeting of this Society on Thursday, January 9, at 8 p.m., Professor Lister, the President, will deliver an address on "The Vaso-Motor System in its Relations to Practical Surgery."

The Vienna and the Pesth Medical Faculties.—For some time the number of students at the Vienna Faculty has been decreasing, and now the *Allg. Wien. Med. Zeit.* announces that the registrations for the present winter session only amount to 658, and are exceeded by those of the Buda-Pesth Faculty, amounting to 665.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—WINTER COMMENCEMENTS, 1878.—At a meeting of the Senate of the University, held on Wednesday, December 18, under the presidency of the Trinity College *Caput*, Dr. Hart, Vice-Provost (pro-Vice-Chancellor); Rev. Dr. Lloyd, Provost; and the Rev. J. A. Galbraith, Senior Master *non-regent*, the following degrees in Medicine and Surgery were conferred:—

Baccalaurei in Chirurgid.—Arturus Jacobus Campbell, Gulielmus Deane Freeman, Josephus Gibson, Carolus O'Grady Gubbins, Reynolds Peyton Hetherington, Edmundus Henricus Myles, Ashley Johannes Westby, Johannes Robertus Yourdi.

Baccalaurei in Medicind.—Fausset Maher Baker, Gulielmus Deane-Freeman, Robertus Charles Gage, Carolus O'Grady Gubbins, Henricus Love, Thomas Tilly Moore, Edmundus Henricus Myles, Henricus Walker Murray, Ashley Johannes Westby, Johannes Robertus Yourdi.

Magistri in Chirurgid.—Fausset Maher Baker, Robertus Carolus Gage, Ashley Johannes Westby.

Doctores in Medicind.—Abraham Colles, Franciscus Peirce, Patricius Henricus White.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the examination, held on December 9 and following days, the undernamed gentlemen passed their final examinations for the letters-testimonial of the College, and having made and subscribed the declaration, were admitted Licentiates, viz.:—

Wm. Theodore Atkinson, James Robert Barton, Henry Lewis Battersby, John Cashin, Patrick Francis Cochlan, Daniel Corbett, Peter A. D'Alton, James Joseph Davis, Michael Donnelly, John Alexander Dockeray, Albert Justin Duffey, Thos. Fitzpatrick, Samuel Flood, Armitage Forbes, Simon K. Furney, James Joseph Harding, Richard C. Laffan, Edward L. Ledwich, Henry Lentaigne, Henry Love, John Wm. Macnamara, Michael Joseph M'Coy, Wm. Joseph Magee, Alfred Mason, John Mason, James M'Laughlin, George Mark Patrick Murray, Charles G. O'Connor, Walter Stephen Palmer, Thomas Heazle Parke, Wm. Johnson Patton, Henry Pentland, Bernard Reddy, Denis Daniel Redmond, Charles Rorke, Edward James George Rothe, Thomas Sheedy, Henry Wm. Smith, Henry George Stokes, Thomas Joseph Tobin, Charles Vokes, and H. L. Esmond White.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 19, 1878:—

Alban, Evan, Aberayron, Cardiganshire.
Atkey, William Thomas, Chichester.
Baldwin, Fredk. Benj. Judge, Merrick-square, Southwark.
Batty, Wm. Eaton Latham, Park-grove, Birkenhead.
De Wolfe, James Lovett, 107, Long-acre, W.C.
Leighton, Andrew Wm., Totteridge, Herts.
Shapley, Frank, Torquay.
Vlieland, Charles James, 32, Burdett-road, E.
Weed, Thodon Arthur, Guilford-street, Russell-square.
Webb, William Wilfrid, 4, Tavistock-place, W.C.

On December 26—

Greensill, Joseph Moon, Great Whitley.
Jewell, Charles Coleman, University College Hospital.
Parry, Robert, Festiniog, Carnarvon.
Read, Edward Inskip, Stoke, near Devonport.
Rusher, James Benjamin, Pershore, Worcestershire.
Woolstencroft, Joseph, Northwich.

The following gentlemen also passed their Primary Professional Examination on December 19:—

Bothamley, William Parkinson, Guy's Hospital.
Cree, Edward Russell, Middlesex Hospital.
Farebrother, William Arthur, Charing-cross Hospital.
Moore, Thomas George James, Charing-cross Hospital.
Parsons, Herbert Flower, St. Mary's Hospital.

On December 26—

Fairley, Samuel Barjona, Birmingham.
Grindon, Francis James, Charing-cross Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

V. D. HARRIS, M.D. Lond., M.R.C.P.—Casualty Physician to St. Bartholomew's Hospital, *vice* Dr. Legg, appointed Assistant-Physician.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—Inspector-General of Hospitals and Fleets Henry Jones Domville, C.B., M.D., has been placed on the retired list.

WAR OFFICE, PALL-MALL.—Coldstream Guards: Surgeon-Major Constantine Caridi Read, Battalion Surgeon, to be Surgeon-Major, *vice* C. V. Kay, M.D., retired on half-pay; Surgeon-Major George Perry, from the Scots Guards, to be Battalion Surgeon, *vice* Surgeon-Major C. C. Read, promoted.—Surgeon-Major John James Henry retires upon temporary half-pay.

WHITEHALL.—Robert Mundy Gover, M.R.C.P., has been appointed an Inspector of Prisons under the "Prisons Act, 1877."

BIRTHS.

BASTIAN, on December 22, at Drayton-green, Castle-hill, the wife of H. Charlton Bastian, M.D., F.R.S., of a daughter.

BRIDGWATER.—On December 18, at Harrow-on-the-Hill, the wife of T. Bridgwater, M.B. Lond., of a son.

CROOM.—On December 22, at 10, Hope-street, Edinburgh, the wife of Halliday Croom, M.B. Edin., of a daughter.

CURTIS.—On December 15, at Alton, Hants, the wife of Arthur Curtis, L.R.C.P., of a son.

ELLIOT.—On December 19, at Cliffe House, Rayton, the wife of Henry F. Elliot, L.R.C.P. Edin., of a daughter.

FOX.—On December 22, at Great Baddow, Essex, the wife of Cornelius B. Fox, M.D., of a daughter.

GAMGEE.—On December 30, at Fallowfield, Manchester, the wife of Arthur Gamgee, M.D., F.R.S., of a daughter.

GRELLET.—On December 29, at Bancroft, Hitchin, Herts, the wife of Charles John Grellet, M.R.C.S. Eng., of a son.

HEATH.—On December 21, at 36, Cavendish-square, the wife of Christopher Heath, F.R.C.S. Eng., of a son.

JONES.—On December 19, at 19, Chapel-street, Belgrave-square, the wife of T. Ridge Jones, M.D., of a daughter.

MAY.—On December 17, at Tottenham, the wife of Edward Hooper May, M.D., of a daughter.

SINCLAIR.—On November 30, at Moulmein, British Burmah, the wife of D. Sinclair, M.B., Surgeon H.M.I.A., of a son.

TWORT.—On December 20, at Staff Villa, Camberley, Surrey, the wife of W. H. Twort, M.R.C.S., of a son.

MARRIAGES.

BROOKHOUSE—ORPE.—On December 19, at Alton, Charles Turing Brookhouse, M.D., of Manor-road, New Cross, to Martha, third daughter of the late John Orpe, Esq., of Birchwood.

CUNNINGHAM—MIDDLETON.—On December 24, at Islington, John Cunningham, of Bristol, to Amelia, second daughter of James Middleton, M.D., of Mill Cottage, Woodford.

CURTIS—CALLAWAY.—On December 19, at Southsea, Collins Curtis, M.R.C.S.E., L.S.A., of Harting, Sussex, to Ellen, youngest daughter of the late George Augustus Callaway, of Fyning Cottage, Rogate.

EPPS—HALL.—On December 21, at Broughty Ferry, Washington Epps, L.R.C.P. Edin., of 99, Great Russell-street, London, to Frances, elder daughter of the late Thomas Hall, B.A., F.C.S., of the City of London School.

EWART-SCHAFER.—On December 24, at Highgate, J. Cossar Ewart, M.D., F.R.C.S.E., to Jessie Caroline, elder daughter of J. W. H. Schäfer, of Lydstep House, Highgate.

KAROP—ROMNEY.—On December 17, at St. Luke's, Paddington, George C. Karop, M.R.C.S., to Anna Maria Garmston, youngest daughter of the late Rev. F. H. Romney, of Worcester.

NAISMITH-GAIRDNER.—On December 5, at Airlie, Ayr, William John Naismith, M.D. Edin., to Elizabeth, youngest daughter of the late Charles Dalrymple Gairdner.

PRENTICE—GROVE.—On December 19, at Kensington parish church, T. Ridley Prentice, son of the late T. L. Prentice, of Beddington, to Esther, youngest daughter of John Grove, M.D., of Hampton.

QUIN—NICOLL.—On December 28, at the chapel, Charterhouse, Richard James Quin, Esq., barrister-at-law, to Mary Charlotte, elder daughter of Charles Richard Nicoll, M.D., late Grenadier Guards.

SMART—HANDYSIDE.—On December 20, at 16, Lansdowne-crescent, Edinburgh, Alfred Smart, of The Priory, Lee, Kent, to Eliza Walsh, second daughter of P. D. Handyside, M.D.

SMITH—McGAVIN.—On December 25, at Barnet, Herts, Stephen Francis Smith, M.D., of 309, Holloway-road, to Catherine Robina, eldest daughter of W. B. McGavin, of Hillwood, Barnet, and formerly of Melbourne.

STOKER—PHILLIPS.—On December 14, at South Hampstead, Charles J. Stoker, L.R.C.P., M.R.C.S., of Forest-gate, to Emma Hariet, second daughter of S. Phillips, Esq., of Glenhurst, South Hampstead.

YATES—BEET.—On November 2, at Bombay, Louis Edmund Hasselle Yates to Annie Flora, eldest daughter of W. Beet, M.D., of Ashford, Kent.

DEATHS.

BARRON, EDWARD ENFIELD, M.D. Lond., late of St. Thomas's-street, Southwark, at St. John's, Woking, on December 25, aged 67.

BROWNING, GEORGE, M.D., at 21, Kildare-gardens, on December 20, in his 65th year.

CAMPBELL, EDWARD ELLICE, M.B., C.M., at Knock, Isle of Skye, on December 26.

DASSANVILLE, WILLIAM ALSTON, M.D., retired Deputy Inspector-General of Army Hospitals, at Thun, Switzerland, on December 14, aged 71.

HANKS, ARTHUR, youngest son of James Hanks, L.R.C.P. Edin., at Snaith, Yorkshire, on December 17, aged 28.

JOHNSTON, EMMA SHAYER, wife of James T. O. Johnston, M.D., Deputy Inspector-General of Army Hospitals, at Caithness House, Ryde, on December 24, in her 65th year.

NICHOLS, W. P., F.R.C.S., at Surrey-street, Norwich, on December 22, aged 77.

O'DONNELL, JOSEPH FRANCIS, M.B., Surgeon H.M.S. *Thunderer*, at Artaki Bay, on December 15.

PENN, W. CECIL, M.R.C.S. Eng., Surgeon H.M. Emigration Service, at sea, ship *Jura*, bound from Calcutta to Trinidad, on October 3, in his 42nd year.

RINGROSE, JOHN, M.R.C.S. Eng., at The Larches, Wood Green, on December 28, in his 75th year.

SEATON, JAMES CLARKE, B.A. Oxon., Madras Civil Service, youngest son of E. C. Seaton, M.D., Local Government Board, at Tinnevelly, on December 25, killed by a fall from his horse, aged 22.

SHAPE, WILLIAM HEATHCOTE, M.R.C.S.E., at 77, Millbrook-road, Brixton, on December 25, in his 66th year.

TYRRELL, PERCY JOHN O'H., son of S. M. Tyrrell, L.R.C.P. Edin., Madras Medical Service, at Edinburgh, from diphtheria, on December 19.

WALFORD, SARAH AMELIA, wife of T. L. Walford, M.R.C.S. Eng., at Bath Lodge, Reading, on December 26, aged 65.

VACANCIES.

BRISTOL ROYAL INFIRMARY.—Medical Superintendent. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, or Masters in Surgery of one of the Universities of the United Kingdom, and also possess a registered medical qualification. Applications, with testimonials, to the Secretary, on or before January 23.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer and Dispenser. Applicants must be single men, with a good knowledge of dispensing, and must possess a double qualification according to the regulations of the Local Government Board. Applications on a printed form (which will be provided), with not more than four recent testimonials, to William Appleton, Clerk, on or before January 4, 1879.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Ophthalmic Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with copies of testimonials, to the Secretary, on or before January 6, 1879.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Candidates for the office may obtain particulars of the appointment from Francis Baily, Secretary.

ST. GEORGE'S UNION: E AND F RELIEF DISTRICTS.—Outdoor Medical Officer. Candidates must be duly qualified medical practitioners. Applications, with testimonials, to Thomas Worlock, Clerk, on or before December 31, at the Clerk's Offices, Mount-street, W.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM, BICTON, NEAR SHREWSBURY.—Assistant Medical Officer. Applications, stating age and qualifications, with testimonials, to the Medical Superintendent, on or before January 4, 1879.

UNIVERSITY OF LONDON.—Registrarship. Candidates are invited to send in their applications not later than February 1, 1879. Further information may be obtained on application to Thomas Douse, Clerk to the Senate, University of London, Burlington-gardens, W.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population in computed according to the census of 1871.

RESIGNATIONS.

Melton Mowbray Union.—Mr. E. Brewster has resigned the Waltham District; area 17,042; population 2873; salary £40 per annum.

Settle Union.—Mr. F. Green has resigned the Settle District; area 18,496; population 4340; salary £35 per annum. Also the Workhouse; salary £30 per annum.

APPOINTMENTS.

Amersham Union.—Thos. M. Parrott, M.R.C.S. Eng., L.S.A., to the Beaconsfield District.

Bingham Union.—Thomas P. Wright, M.R.C.S. Eng., L.S.A., to the Workhouse.

Chipping Norton Union.—Frederick T. Maisey, M.R.C.S. Eng., L.S.A., to the Third District.

Drayton Union.—Samuel L. Popham, M.D. and C.M. Dub. Univ., to the Workhouse.

Droxford Union.—George W. Butler, M.R.C.S. Eng., L.R.C.P. Edin., to the Westmeon District.

Kingston Union.—Frank H. Low, M.B., C.M. Aber., M.R.C.S. Eng., L.S.A., to the Thames Ditton District.

Maidstone Union.—Isaac S. Jones, L.R.C.P. Edin., L.R.C.S. Edin., to the Fifth District and the Workhouse.

Sevenoaks Union.—Walter Hardin, M.R.C.S. Eng., F.R.C.S. Edin., L.R.C.P. Ire., to the Fifth District.

West Bromwich Union.—Charles Lyddon, L.R.C.P. Edin., M.R.C.S. Eng. L.S.A., to the Oldbury East District.

THE SOCIÉTÉ DE BIOLOGIE.—This celebrated Society has just elected Prof. Paul Bert as its third perpetual president. On taking the chair he thanked the Society for so marked an honour as to be declared successor to two such men as Rayer and Claude Bernard. Rayer, who founded the Society in 1849, with a mind always on the alert, received with the greatest kindness the young labourers in the field of science by encouraging them, sometimes at the price of personal sacrifices. As for Claude Bernard, the master whose authority was accepted and proclaimed by all, and the more so as his modesty prevented all self-assertion, he loved the Society, and from its first meeting, at which he read two communications, he had never ceased to confide to it the progress of his researches and announce to it the origins of his various discoveries. The Society well knew of the indefatigable labours of this great man, who united the power of a creative mind to that prolonged patience heretofore regarded as the sole condition of genius. If the Society has felt so vividly the influence of the illustrious master, it has in its turn exerted its action on him; for it is impossible that the multiplicity of the communications, the diversity of the subjects, and the variety of the experiments, brought before it every week should not exercise a manifest influence on the mind of Claude Bernard. Here, in fact, one is not shut up in the narrow circle of a special study. Practitioners, physiologists, botanists, all are here invited to exhibit their investigations. "We are living beings," the Professor exclaimed, modifying the well-known saying of the late poet, "and nothing that concerns life should be alien to us."—*Gaz. Hebd.*, December 27.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Calf Lymph.—Apply to Dr. Martin, Boston, U.S.A.

Public Baths and Washhouses, Clerkenwell.—A proposal is before the Clerkenwell parochial authorities for the erection of a new vestry hall, and also public baths and washhouses, within the parish. It appears that the Clerkenwell Workhouse (the freehold of which is the property of the parish) will shortly be vacated by the opening of the new infirmary at Highgate, and it is proposed that either a new vestry hall or public baths and washhouses should be erected on the site. The matter is still under consideration.

Royal Presents.—The Emperor of Germany presented his body physician, Dr. von Lauer, with a portrait of himself, on the occasion of his "jubilee." The Empress also presented him with a table of elaborate workmanship, which is said to be very valuable; and the Crown Prince has likewise given Dr. von Lauer his portrait.

A Medical Inspector of Prisons.—In consequence of the late disclosures respecting the treatment of prisoners, the Home Secretary has appointed a permanent medical inspector, with power to visit prisons, and report to their visiting justices upon the health of the inmates, irrespective of the regular officers of those establishments.

The Goulston-street Baths and Washhouses, Whitechapel.—In August last, the authorities of St. Mary's, Whitechapel, re-opened these baths and washhouses, which had for some time been going to decay. To the salutary effect these baths and washhouses have produced on the immediately adjacent residents, alike in their persons and homes, the School Board visitor for that district has borne willing and satisfactory testimony. A warm bath can be had for twopence, including use of towels, soap, and brush; and for three-halfpence an hour, accommodation is provided for washing and drying, hot irons, etc. During the seventeen weeks which have elapsed, the number of baths taken was upwards of 25,000, and 4000 washers availed themselves of the institution. The money receipts have steadily increased, and the continued progress of the establishment is most satisfactory, equally in respect to the facilities it offers to the poorer classes for healthy ablution, and its sanitary advantages for laundry purposes.

Inquisitive.—The *bond fide* object of the St. John Ambulance Association is to give a practical and useful course of instruction how to render first aid to the injured. The number of persons attending the classes in the metropolis last year was 540; at the present time it is 900.

W. Harvey, M.D.—In medical science few things have been more talked of than the discovery of the circulation of the blood. "Now, it is curious to observe," says Mr. Macilwain in his "Life of Abernethy," "that every fact essential to the demonstration of it had been made out by previous investigators, but no one had deduced from them the discovery of the circulation until Harvey, although it was a conclusion scarcely more important than obvious."

J. J. P.—Sir William Blizard was born at Barnes, Surrey; he was Surgeon to the London Hospital, and filled the office of Master at the Royal College of Surgeons in 1814, and of President in 1822. He practised his profession in Devonshire-square, Bishopsgate, until his death in 1835, at the advanced age of ninety-three. His country residence was Brixton. He was enthusiastically fond of his profession, and at the College of Surgeons attended every day except Sundays, and on Monday mornings used to be called on by an officer of the College, to let him know that nothing had occurred since he was there on Saturday.

Mr. Campbell.—The following are the members of the Council and Examiners of the Royal College of Surgeons now living, who have successfully competed for the Jacksonian Prize, viz.:—1834—Messrs. T. B. Curling, "On Tetanus"; 1843—John Birkett, "Diseases of the Mammary Gland"; 1859—J. W. Hulke, "The Morbid Changes of the Retina, as seen in the Eye of the Living Person and after removal from the Body," etc.; 1861—John Wood, "The Best Method of effecting the Radical Cure of Inguinal Hernia," etc.; and 1867—C. Heath, "The Injuries and Diseases of the Jaws," etc. For the Jacksonian Prize of the year just closed, "On Glaucoma, its Causes, Symptoms, Pathology, and Treatment," we understand only three essays have been sent in.

Psychologist.—The name of William Orange, M.D. Heidelb., of Broadmoor, who, in his evidence at the inquest on Sir W. G. Hayter, is described as a Fellow of the College of Surgeons, does not appear as such in the Calendar of the College. It was, no doubt, a mistake of the reporter's, as Dr. Orange is a Fellow of the Royal College of *Physicians* of London.

An Abstainer.—Sir Wilfrid Lawson has fixed April 30 next for the second reading of the Permissive Bill. The report that he would not introduce the Bill this year into Parliament, but proceed by resolution, is therefore contradicted. The Bill bears the names of Sir Wilfrid Lawson, Sir Thomas Bazley, Dr. Cameron, and others.

COMMUNICATIONS have been received from—

Mr. D. Colquhoun, London; Dr. F. Churchill, London; Dr. J. M. Bruce, London; Mr. J. Chatto, London; Mr. T. M. Stone, London; Dr. J. Pearson Irvine, London; Dr. Godson, London; Mr. J. A. Bloxam, London; Mr. B. R. Wheatley, London; Dr. Alfred Sangster, London; Dr. Ross, Manchester; Mr. Wanklyn, London; Mr. J. Hamilton Craigie, London; Mr. Warrington Haward, London; Dr. Herbert Moss, Shanklin; Mr. S. F. Page, London; Dr. Morell Mackenzie, London; Dr. O. Sturges, London; Dr. John Muter, London; The Registrar-General, Edinburgh; Dr. J. F. Goodhart, London; Mr. R. W. Parker, London; The Secretary of the Royal Institution, London; Dr. T. Barlow, London; Mr. C. J. Cullingworth, Manchester; Mr. J. T. W. Bacot, Seaton; Mr. R. Clement Lucas, London; The Secretary of the Clinical Society, London; The Honorary Secretary of the Medical Society, London.

BOOKS AND PAMPHLETS RECEIVED—

Statistical Report of the Health of the Navy for the Year 1877—E. C. Seguin, M.D., Two Lectures on Lister's Antiseptic Method of Treating Surgical Injuries—The Diagnosis of Progressive Locomotor Ataxia—Thomas T. Whipham, M.B., Introductory Address at St. George's Hospital, October 1, 1878—On Specialism in the Medical Profession—Alexander Wynter Blyth, M.R.C.S., F.C.S., A Manual of Practical Chemistry—Graham's Temperance Guide, 1879.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—National Anti-Compulsory Vaccination Reporter—Canadian Journal of Medical Science—Colonies and India—Veterinarian—Monthly Homœopathic Review—Archives Générales de Médecine—Gazzetta Medica Italiana—Medical Temperance Journal.

APPOINTMENTS FOR THE WEEK.

January 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Dewar, "On a Soap Bubble."

6. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. First Lettsomian Lecture—Dr. C. Thorowgood, "On Bronchial Asthma: History and Nature of Asthma."

7. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. (Annual Meeting.) Specimens will be shown:—Dr. Coupland—1. Brain showing Effects of Extreme Congestion; 2. Chronic Pneumonia. Dr. Buchanan (for Mr. W. H. Power). "On the Nature of certain observed Relations between Diphtheria and Milk." Mr. A. H. Smee—Notes upon Garget. Mr. James Adams—Tumour of the Breast. Dr. F. Taylor—Spinal Cord from a Case of Infantile Paralysis. Dr. R. Crocker—Warty Growths on the Tricuspid Valves, with Mitral Stenosis, in a Child. (Election of Officers.)

Royal Institution, 3 p.m. Prof. Dewar, "On a Soap Bubble."

8. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Dr. Buzzard, "On Cases of Syphilitic Affection of the Brain."

9. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Dewar, "On a Soap Bubble."

10. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m. (Annual Meeting). Election of Officers. Dr. Cayley and Mr. Lawson, "Intestinal Obstructions treated by Gastro-Enterotomy. Mr. Heath, "Silver Catheter broken in the Bladder." Dr. Southey, "Pleuritic Effusions treated by Capillary Drainage." Dr. Althaus, "Disease of the Spinal Accessory Nerve."

Queekett Microscopical Club, 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 28, 1878.

BIRTHS.

Births of Boys, 879; Girls, 883; Total, 1762.
Average of 10 corresponding years 1868-77, 2051·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	933	967	1900
Average of the ten years 1868-77	845·6	851·1	1696·7
Average corrected to increased population ...	...	...	1815
Deaths of people aged 80 and upwards ...	...	...	106

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1868-77 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	1	4	6	3	1	...	4	...	1
North ...	751729	...	5	11	4	14	...	4	...	3
Central ...	334369	...	...	3	1	4	...	...	...	2
East	639111	...	7	9	4	19	...	4	...	2
South	967892	12	18	19	10	24	1	7	4	2
Total	3254260	13	34	48	22	62	1	19	4	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·606 in.
Mean temperature	32·7°
Highest point of thermometer	45·9°
Lowest point of thermometer	12·2°
Mean dew-point temperature	31·2°
General direction of wind	Variable.
Whole amount of rain in the week	0·50 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 28, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1878.*	Persons to an Acre. (1878.)	Births Registered during the week ending Dec. 28.	Deaths Registered during the week ending Dec. 28.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3577304	47·5	1762	1900	46·9	12·2	32·7	0·39	0·50	1·27
Brighton	103923	44·1	46	48	47·5	23·6	35·2	1·78	0·58	1·47
Portsmouth ...	129481	28·9	50	41	...	...	...	...	...	...
Norwich	84620	11·3	51	66	42·0	16·0	31·1	−0·50	0·66	1·68
Plymouth	73599	52·8	32	34	50·0	25·0	37·1	2·84	0·93	2·36
Bristol	206419	46·4	99	145	46·0	19·0	33·0	0·56	1·13	2·87
Wolverhampton ...	74240	21·9	42	42	36·8	10·6	27·2	−2·67	1·28	3·25
Birmingham ...	383117	45·6	220	240	...	...	...	...	...	...
Leicester	121473	38·0	84	67	40·5	9·8	28·0	−2·22	1·25	3·17
Nottingham ...	165267	16·6	76	79	34·9	5·2	26·6	−3·00	1·34	3·40
Liverpool	582681	102·2	306	392	41·6	12·7	31·3	−0·39	0·64	1·63
Manchester ...	360514	84·0	219	291	...	...	...	...	...	...
Salford	170251	32·9	119	144	...	...	...	...	...	...
Oldham	107366	23·0	66	64	...	...	...	...	...	...
Bradford	185088	25·6	92	108	37·2	13·9	28·5	−1·95	0·58	1·47
Leeds	304948	14·1	201	198	38·0	15·0	29·3	−1·50	0·70	0·78
Sheffield	289537	14·7	186	148	39·0	14·7	31·3	−0·39	1·10	2·79
Hull	143139	39·4	96	84	38·0	9·0	27·5	−2·50	1·14	2·90
Sunderland ...	112459	40·6	75	59	40·0	24·0	30·6	−0·78	0·68	1·73
Newcastle-on-Tyne	144570	26·9	93	97	...	...	...	...	...	...
Edinburgh	222371	53·1	137	104	38·5	20·5	29·2	−1·56	1·84	4·67
Glasgow	566940	94·0	326	388	39·5	18·0	30·2	−1·01	...	...
Dublin	314666	31·3	148	233	45·2	9·3	30·3	−0·95	0·71	1·80
Total of 23 Towns in United Kingdom	8373953	38·0	4526	4962	50·0	5·2	30·5	−0·84	0·94	2·39

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·61 in. The highest reading was 30·20 in. on Tuesday afternoon, and the lowest 29·23 in. on Thursday noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1878 by the addition of seven years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Nottingham, Salford, and Oldham, however, form exceptions to this rule, as the estimates for these three towns have been revised with the aid of local information as to the rate of increase of inhabited houses. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

EVANS, SONS, & CO.'S

TRADE MARK.

EMULSIFIED COD-LIVER OIL

Emulsio Morrhuæ (Evans),

Containing 50 per cent. of the Finest Cod-Liver Oil.

EMULSIFIED COD-LIVER OIL WITH HYPOPHOSPHITE OF LIME

Emulsio Morrhuæ c. Calc. Hypophos. (Evans).

Each fluid ounce contains 50 per cent. of Finest Cod-Liver Oil and four grains of Hypophosphite of Lime.

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ORIGINAL LECTURES.

LECTURES ON THE DIAGNOSIS OF EPILEPSY.

DELIVERED BEFORE THE HARVEIAN SOCIETY.

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LECTURE I.

MR. PRESIDENT, GENTLEMEN,—The first thing I have to do is to thank you most heartily for the great honour you have conferred on me in asking me to give these lectures, and the next is to assure you that the task is in all ways a most pleasant one.

The subject I have chosen is the Clinical Investigation of Epilepsy. Epilepsy will be considered chiefly with regard to diagnosis. Such a subject is, however, far too wide. I must, therefore, omit large parts of it. To show more definitely how I shall handle my subject, some preliminary remarks on classification generally may be made.

There are two kinds of classification of diseases—one scientific, generally called theoretical, for the advancement of knowledge; one empirical or clinical, for practice. In the scientific or theoretical, so far as is possible, we classify diseases as they are *departures from healthy states*—as they show abnormalities of structure, function, and nutrition. Empirically or practically, we classify them as *they approach certain types*. We will first consider the scientific classification of epilepsy, or rather of epilepsies.

Scientifically, I should consider epilepsies on the hypothesis that the paroxysm of each is dependent on a sudden temporary excessive discharge of some highly unstable region of the cerebral cortex. There is, in other words, in each epilepsy a "discharging lesion" of some region of the cortex cerebri. The discharging lesion is nothing more than a group of cells whose instability is raised far above normal. This is considering an epileptic fit as being a development of the impressions and movements represented in some unstable region, and in other regions secondarily discharged; but yet, since the discharges are excessive, an excessive and, so to speak, brutal development of them. Thus epilepsies are, scientifically regarded, departures from normal states by excess. As implied, the "discharging lesion" is supposed to be local. The discharge of the highly unstable cells constituting it (the primary discharge) leads to secondary discharge of healthy cells in other centres (collateral or lower) with which there is anatomical connexion by fibres, the degree and width of the secondary discharges varying according both as the force of the currents developed by the primary discharge and the resistance opposed by fibres and by cells of the healthy centres vary. We must not forget the resistance offered to local discharges in our consideration of their effects. The "discharging lesion" may be likened to a fulminate which overcomes the resistance of less unstable compounds.(a)

It is in the study of epilepsies as departures from normal states that the researches of Hitzig and Ferrier have enormous value. Whatever interpretations psychologists and physiologists may give of them, the *medical* value of these researches is incontestable. By galvanic or faradic excitations of the cortex cerebri in dogs, convulsive seizures can be produced which are as closely like epileptiform seizures in man from disease in the same cerebral region as we could expect, considering the difference of the natural movements of the two animals.

I would take this opportunity of very strongly urging the importance of Ferrier's investigations of the sensory region of the brain. His conclusions harmonise so well with clinical observations that I think they are of inestimable value in giving method to our investigations. It is quite certain that there are paroxysms consisting chiefly of sensory symptoms, which pair off with, and are strictly analogous to, unilaterally beginning convulsions. At any rate, Ferrier has, I think, given a new starting-point for the methodical, the scientific investigation of a most important class of paroxysmal affections which are, in a scientific regard, epilepsies. There are also cases of epilepsy in which, although the paroxysms are for the most part motor (ordinary epileptic convulsions), the "warning" of the fit is by some crude sensation—*e.g.*, by "noise in the ear," or by some "taste" (this is very rare indeed), or by "coloured vision," or by a "strong smell in the nose." In each patient, the "warning" is always the same crude sensation; and very often he has, besides severe fits heralded by his crude sensation, slight paroxysms consisting of little more than that "warning."

Since the cerebral cortex is part of the chief organ of mind, the tacit assumption in the above statements is that the whole of the chief organ of mind (the cerebrum) is, like all other nervous centres, made up of nervous arrangements representing impressions and movements. Another way of stating this is to say that not only have the so-called motory and sensory regions this kind of constitution, but the rest of the brain also has it. It is not said that mind, but that *the organ of mind*, is so constituted.(b) This is a necessary outcome of the doctrine of Evolution.

There are numerous epilepsies under the definition that any epilepsy is, on its anatomical side, a "discharging lesion" of some region of the cortex cerebri. The kind of paroxysm differs according to the particular region of the cortex affected; and since many regions, if not any region, of it may be affected, the number of different epilepsies, scientifically regarded, is great. There are some, as migraine, of which the phenomena are chiefly sensory; others of which the phenomena are chiefly motory. In some, loss of consciousness is first of all or early in the paroxysm; in others, it occurs late in it, or not at all. Besides, there are degrees of paroxysms of each kind, depending on the degree of the discharge of this or that part of the cortex and on how much resistance it can overcome.

Before leaving this part of my subject dealing with classification—only another name for scientific investigation—it must be remarked that the scientific investigation of epilepsy owes very much to Broadbent. For my part, I think his hypothesis as to the mode of representation of certain movements of the two sides of the body in each half of the brain is essential to the full interpretation of all kinds of severe epileptic seizures.

The above-described scientific or theoretical classification, whilst of value in extending and simplifying our knowledge, is worthless for practical purposes. It would, I think, include migraine. To arrange migraine along with ordinary epileptic seizures—with cases of loss of consciousness and convulsion—for practical purposes, would be as absurd as a scientific zoological classification would be for fishermen, hunters, and graziers. Whilst scientifically migraine(c) is, I think, to be classed with epilepsies, provisionally, at least, as being dependent on a "discharging lesion" of some part of the cortex cerebri—probably of some part in Ferrier's sensory region—it would be as absurd to classify it along with ordinary cases of epilepsy for practical purposes as to classify whales with other mammals for purposes of practical life. A whale is in law a fish; in zoology it is a mammal.(d)

We have first to find out that our patient's seizures are epileptic—by no means an easy thing when they are very slight and transitory. We have to consider individual cases as each is presented to us. A patient does not come complaining of a "discharging lesion" of some part of his cerebral cortex; but tells us that he has "had a bad fit," or that he "occasionally loses himself for a moment," and so forth. For practical purposes we require quite a different classification from the scientific one—or, rather, we must have a mere arrangement; we must have types, not definitions, and consider cases presented as they approach this or that type.

(a) The importance of considering resistances in our estimation of the consequences of nervous discharges in diseases of man, and in the abnormal physiological conditions induced in animals by some drugs, was, I believe, first stated in a methodical way by Sydney Ringer.

(b) It is with considerable satisfaction that I read the following in a recent paper:—"It is impossible to conceive of what other materials the 'organ of mind' can be composed than of processes representing both movements and impressions."—W. J. Dodd, *Journal of Anatomy and Physiology*, vol. xii., page 462. The article from which the quotation is taken is a valuable contribution to the methodical study of the organisation of the cerebral centres.

(c) Dr. Latham thinks that the paroxysm of migraine is owing to arterial contraction in the region of the posterior cerebral; Dr. Liveing that there is in the paroxysm a "nerve storm" traversing the optic thalamus and other centres.

(d) Griesinger classifies migraine and some other periodical seizures under the term "epileptoid."

In saying the foregoing, I am only repeating what Handfield Jones said long ago about the classification of epilepsy, and am using similar expressions. As Moxon insists (*Guy's Hospital Reports*, vol. xv.), we must have a clinical nomenclature. The clinical or empirical types are only the most frequently occurring cases; there is, really, no such thing as "genuine" or "real" epilepsy, or "epilepsy proper," except in this arbitrary sense.

I trust I shall not be supposed to underrate the scientific study of disease in advocating the separate clinical study of it for practical purposes. It is not likely that I shall fall under this imputation, since I am following in the path of one(e) of the most scientifically minded men in our profession. A man who really dislikes scientific study, or, as he may say, hypothesis or theory, not merely professes a dislike in order to bring his practical ability into relief, is an one-sided man quite as much as those who do not, or rather cannot, care for music, or poetry, or art.

The following is the first division in our empirical or clinical arrangement of cases of epilepsy. There are two types—

1. *Epilepsy Proper.*
2. *Epileptiform Seizures.*

Partly in order to show that I do not advocate the absolute separation of clinical from scientific investigation, but only the temporary separation, I will consider several broad differences and resemblances betwixt the two divisions of cases from a scientific as well as empirical standpoint.

a. As to Affection of Consciousness.—The distinction is not that consciousness is lost in one and not lost in the other, but that consciousness is lost first thing, or very soon, in the paroxysm of epilepsy proper, and late or not at all in the epileptiform seizures.

To say that an epileptic paroxysm begins with loss of consciousness is equivalent to saying that the epileptic discharge begins in some part of the highest of the cerebral centres. This is an irresistible inference, be those highest centres where they may.(f)

b. As to Spasm or Convulsion.—Convulsion begins more nearly bilaterally in the former; is more nearly universal at once, is more rapid, and is sooner over. In the latter, it begins very locally on one side—hand, side of face, or foot and becomes universal more gradually, the spasm being comparatively slow, especially at the outset.

c. As to Seat of Changes.—The latter depends on disease in some part of Hitzig and Ferrier's region; the former (this is hypothetical) on disease in some part in front of that region, or behind Ferrier's sensory region—that is, on disease in some part of what I suggest are the highest cerebral centres: the so-called motor and sensory regions are only, I think, middle motory and middle sensory cerebral centres; the parts in front of the middle motor centres being the highest motor centres; those behind the middle sensory centres the highest sensory centres.

The vague term "disease" or "changes" has to be analysed; the term "disease" is frequently used without regard to the distinction betwixt the two things, physiological abnormality (*d*) and abnormality of nutrition (pathology) (*c*).

d. As to Abnormal Physiological Condition of Centres.—In each of necessity there is increased instability of cells, since there occasionally occur excessive liberations of energy; in each, there is a "discharging lesion"; there is, then, no essential difference in the abnormal physiological condition in cases of the two divisions; yet the paroxysms of epilepsy proper are more "intense" (more spasm in a short time) than those of epileptiform seizures, and this possibly depends in part on the fact that the highest centres have most small cells (compare *b*).

e. As to Pathology.—In each there is increased nutrition; the excessive liberation of energy in the paroxysm of necessity implies increased taking in of nutrient substances having potential energy; increased nutrition is the other side of high instability. We have as yet little more than this very general, but inevitable, inference as to pathology in either. How the increased nutrition is brought about we do not know in most cases; in some cases (see *f*), it is determined by tumour.(g)

f. As to Morbid Anatomy, we can say that the former are rarely caused by gross organic disease; the latter are often so caused, syphilitic gross disease in particular. Sometimes, however, in cerebral tumour there are attacks difficult to distinguish from the epileptic vertigo of epilepsy proper.

Of course, the gross organic disease only "causes" the seizures in the sense that it leads to high instability of cells in its neighbourhood; it acts like a foreign body. The probability is that it leads to the hyper-physiological condition of instability (see *d*) by producing a subinflammatory change, and thus increased nutrition (see *e*).(h) This difference as to morbid anatomy in the two seizures can only mean, of course, either that gross organic disease most often occurs in some particular places, or that in some particular places it more easily leads to instability of nerve-cells.

Several of the foregoing are to a great extent but detached statements from different standpoints of what Bright and Wilks long ago asserted, viz., that epileptic or epileptiform attacks without loss of consciousness point to gross organic disease, such as tumour of the brain.

As implied, however (*a* and *c*), the essential difference betwixt the two kinds of seizures is chiefly as to the degree of evolution of the centre, part of which has become unstable. This leads me on to say that several of the above statements (*a*, *c*, *d*) as to differences in the two seizures are implied in the following highly interesting generalisation by Herpin: "En résumé: plus le début est long, moins la crise est violente; plus il est instantané, plus l'accès est intense."

I shall pass over the second division of seizures, and consider only epilepsy proper—what most nosologists call genuine, or idiopathic, epilepsy. I exclude the epileptiform seizures, partly to shorten my subject, but chiefly because I could do little more than repeat what I have elsewhere said about them. I learn from Charcot's writings that they were fully described by Bravais in 1824. Their study has been placed on a scientific basis by the researches of Hitzig and Ferrier. These researches show that epileptiform seizures are developments, although excessive and brutal developments, of the movements normally represented in some particular parts of the cerebral cortex; and thus the notion that epilepsy is a sort of entity attacking the patient, is finally got rid of. An epileptic is a person certain of whose own cortical nerve-cells have become highly unstable; and

(e) Moxon states (Introductory Address, Guy's Hospital, session 1868-9): —"You must know diseases, not as the zoologist knows his species and his genera and his orders, by descriptions of comparative characters, but as the hunter knows his tigers and panthers and wild boars. . . . 'Familiarity' is the word, not mere knowledge." In *Guy's Hospital Reports*, vol. xv., Moxon writes:—"When we are dealing with the public or social function of names, we must keep in view the distinction between a science nomenclature and an art nomenclature. The aim of a science is the increasing and unlimited knowledge of the things it concerns itself with; a science seeks out and names with no other object than to know. The scope of any art is, on the contrary, limited and prescribed; it has its proper sphere of work, and it must borrow from the nomenclature of the sciences which it rests upon such names only as are useful for its practical purposes."

(f) By highest centres we do not mean geographically highest: a better term would be "latest centres"—anatomically speaking, "latest developed centres" (individually and in race of organisms); physiologically speaking, centres which are the seat of the activities during which our latest mentation, or present highest consciousness, arises.

(g) I have suggested that increased afflux of blood to the cells unstable may result in some of those cases where there is no local gross organic disease from embolism or thrombosis. I do not mean that there is a new blocking in each fit, but that the blocking determines increased afflux of blood to a certain cortical region, and that, in consequence of increased nutrition, the cells therein have a highly raised instability. In other words, the hypothesis is that in some cases the "cortical regions" unstable in epileptics are "arterial cortical regions." Other things equal, the smallest cells will soonest become unstable. A mass of nervous matter in many small cells will "present a very much larger surface to the contact" of the nutrient fluid than the same mass in a few large cells. It is to be observed that in most cases of epileptiform seizures the attacks are for some time limited to small muscles; epileptic seizures generally begin by spasm of small muscles or in muscles the chief movements of which require little energy for the displacements they have to effect.

(h) MM. Pitres and Franck have made an important communication of facts bearing on the production of changes of instability, as the following quotation from *Le Progrès Médical*, January 5, 1878, shows. The quotation refers, first, to the results of destroying one of the centres in Hitzig and Ferrier's region:—"Whilst the underlying white substance of the destroyed centre progressively loses its excitability, the grey substance of the neighbouring centres becomes turgid and inflamed, and if the inflammation be not sufficiently intense to alter the structure profoundly, a considerable augmentation of its excitability can be proved [a discharging lesion]. Epilepsy is then produced with the greatest facility. To make the animal walk, to exercise pressure upon the skin which has covered the cerebral wound, to pass a sponge over that portion of the brain which is uncovered, etc., often suffices to produce convulsive attacks. It is even very curious to see the grey substance react by convulsive phenomena under the influence of mechanical excitations which, in the physiological state, give place to no appreciable motor reaction. Under these conditions, partial epilepsy may remain limited to those parts of the body the centres of which have become abnormally excited, and respect the limb corresponding to the destroyed centre."

in their discharge, the movements or impressions they represent are excessively developed.

More recently, eminent French physicians (Charcot, Lepine, Landouzy, Carville, Duret, Pitres, Franck, etc.) have given more definite clinical and scientific form to this most important—because least complex—group of epileptic seizures. Gowers, Dreschfeld, Byrom Bramwell, Ringrose Atkins, Bevan Lewis, and others in this country, have made most important additions to our knowledge of these. Charcot and others have added very greatly to our knowledge of the anatomy and physiology of the brain by their discoveries of the cortical origin of monoplegias corresponding to monospasms. Their researches merit the highest of all praise, that of introducing method, by a kind of work which can be rated highly as clinical, or physiological, or anatomical, or pathological.

I am strongly of opinion that the epileptiform group should be studied first, and although I pass over it in these lectures for the reasons given, I shall now and then illustrate complex phenomena of epilepsy proper by corresponding simpler phenomena of epileptiform seizures.

Taking, then, epilepsy proper, we say that it is a paroxysmal loss of consciousness. That is only a statement from the psychical side; it is the first statement as to type. We have, speaking of the physical side, to add that there is with the loss of consciousness more or less spasm of muscles (including in that expression spasm of muscular coats of arteries and the like), or equivalent effects of cortical discharges. This is the second statement on the type. The third statement is, that the loss of consciousness is the first, or nearly the first, thing in the paroxysm.

There are degrees of involvement of consciousness, from slight confusion of mind to complete insensibility, or, after the attack, to coma. There are also degrees of the accompanying spasm, from, for example, such as slight twitchings of the hands, or that signified by facial pallor, to universal severe convulsion. Presumably there is an exact correspondence betwixt the psychical loss and the physical condition, but it would be difficult to show it from cases. But we must not suppose that the correspondence is betwixt degree of affection of consciousness, and degree of the physical condition of spasm; inferentially the correspondence is betwixt the degree of affection of consciousness, and the degree of the physical condition of gravity of the discharge.

It would be very remarkable if there were not very many degrees of seizures, from those with most transitory and trifling manifestations, to severe universal convulsion, followed by paralysis and coma. It would be contrary to all analogy if there were not. In epileptiform seizures it is common for the patient to have very partial convulsions before widespread or universal ones. Thus, a patient of mine had, first, attacks of spasm beginning in her right index finger, and "working" up to the elbow; months later she had severe convulsions, with loss of consciousness, attended by much spasm. A patient may have spasm limited to the big toe, that is, to him apparently so limited, and at other times widespread convulsion. One of my patients used to show his twitching hand to his fellow-workmen "as a curiosity," before he had severe seizures which appeared to him of moment.

To return from this illustration to epilepsy proper; we see that there are numerous degrees. At the one end of the scale is the case of a patient whose seizures are so slight and transient that a stranger to him might think he only bungled for a moment in conversation; and at the other end is the case of a patient who has loss of consciousness with severe and violent convulsion, followed by deep coma (apoplexy), quite undistinguishable at the first from coma (apoplexy) produced by fatal cerebral hæmorrhage.

The slight seizures are often at the beginning of a case of epilepsy so slight and transient, that the patient takes no notice of them; only when a convulsive seizure comes on does he find out what his slight transitory mental confusion, etc., meant.

Upon this basis of degrees we now divide epilepsy proper. At first glance, we should expect the division to be founded on both the width and degree of spasm and the degree of affection of consciousness. This, however, cannot be done; there is not a discoverable exact correspondence (*vide supra*). We cannot make a clear division on this double basis. For this reason, and because there are degrees of affection of consciousness and degrees of spasm, the division must be not only arbitrary, but rough. We make one which seems very rough indeed. It is into slight and severe, or, using French names, into *le petit mal* and *le grand mal*—freely translatable as "little fit" and "big fit."

I do not think the division is quite so arbitrary as it appears to be at first glance; the discharge beginning in the highest cerebral centres has, it is suggested, to overcome the resistance of the middle cerebral centres before it can produce peripheral effects (spasm, etc.). If there be such a thing as epileptic loss of consciousness without any peripheral manifestations, I suppose the explanation is that the effects of the discharge are limited to the highest centres; the currents developed by the primary discharge of some part of the highest centres pass by lateral or integrating lines to other collateral parts of the highest centres and discharge them. This is equivalent to saying that the currents developed, whilst strong enough to overcome the resistance of collateral parts of the highest centres, are not strong enough to overcome the resistance, that is to discharge, the middle cerebral centres. And when not strong enough to discharge some of the middle cerebral centres, the currents may be strong enough to discharge others. The peripheral effects in slight seizures are manifested on small muscles; the discharge is then strong enough to overcome partially the resistance of the lower centres in Hitzig and Ferrier's region, those representing small muscles and containing fewest large cells (Bevan Lewis). If this be so, we see that the correspondence is not betwixt the affection of consciousness and the peripheral effects of the discharge; there may be a discharge strong enough to abolish consciousness, and yet not strong enough to produce any, or very slight, peripheral effects.

By the expression severe, we mean those cases in which there is very much spasm and often universal convulsion with tongue-biting. I exclude these cases

To recapitulate briefly: We have excluded one large division of cases (epileptiform), leaving epilepsy proper, and then from this remaining division we have excluded the severe seizures. We have only to consider slight cases of epilepsy proper. I must then give a type of a slight case, and this will be some indirect account of the severe ones excluded from consideration. To prevent a possible misunderstanding, let me remark that the terms slight and severe used empirically refer to quantity of manifestation, especially to range of spasm, not to gravity of the case. The slight seizures are said to be the worst for mind: this accords with the hypothesis that the currents develope by discharges of some part of the highest centres, or are chiefly limited to the highest centres.

The type of the slight cases is sudden and transient loss of consciousness, closely followed or accompanied by but little spasm, and that of small muscles, such as is signified by pallor of face (spasm of facial arteries), slight spasm of the eyes, hands, etc.

Two things are said about the spasm in these type cases: it is in degree; it is limited (may affect parts in many different regions, however, and in this sense be widespread, or, more figuratively speaking, widely scattered). In contrast, the spasm in the severe seizures is very great; it is not simply widespread, but universal; at any rate, in severe seizures, all the "visible" muscles, small and large, are affected. In some of the cases we call slight there is apparently universal slight stiffness; there is a miniature universal convulsion, and possibly the "tremor" described by some patients is a miniature universal clonic convulsion; still, the most striking effects are manifested in small muscles. Instead of saying "small muscles" we should in strictness say "parts, the movements of which require little force for the displacements they have to effect."

There is a kind of spasm which is not obvious. A "vacant" look may depend on slight rigidity of the facial muscles. A patient is sometimes said "to look vacant"; a patient is said to "look fixedly." A loss of expression is essentially an unvarying expression, and very likely it is a matter of opinion whether a given facial aspect in a slight seizure is to be described as a "vacant look" or as a "fixed look." In the stiffened face of paralysis agitans, there is either "loss of expression" or a "puritanical expression," according as we take it. In double facial paralysis, we may take the physiognomy to be either "loss of expression" or a "sulky look." I only say that the so-called "vacant look" in a slight seizure may signify slight even-spread facial spasm, admit-

ting that it may also signify relaxation of the facial muscles. In some seizures, there is at the onset a real expression, which cannot be put down either to a wave of facial spasm, or to a relaxation of facial muscles. There is a very definite emotional expression; one of fear is common. We not uncommonly hear a mother assert of her epileptic child's slight attacks, "She looks frightened, and runs to me." There is also the antithetical expression of indignation in other cases. There are minor degrees of each emotional expression, as astonishment, "looking startled," etc. It is important to notice these expressions; for possibly they will help us to account for the "form" of the actions which in some cases follow seizures; whether the actions when violent are those of "attack" or of "escape."

Again, there may be more spasm in slight seizures than we see. If we look at the face and limbs only, we may see very little, although the respiration is altogether suspended, as is shown by dark lips; we infer that there is either spasm of the glottis or of other parts of the respiratory apparatus.

The slightness of spasm in some slight seizures is occasionally shown by the persistence of movements which widespread spasm would render impossible. In slight seizures, the patient may go on walking apparently well; he may sway about, but so far as he does work, so far is spasm absent from the parts concerned in locomotion.

Then, on the other hand, there are conditions which are, or simulate, loss of power: if the attack be sudden, the patient falls down; in some cases he drops what is in his hands; the head drops when the patient is sitting, is not pulled down by spasm; he may look like a person going off to sleep in a chair. These conditions are not easy of explanation; to say that a man falls or drops things because he loses consciousness is an explanation which explains nothing, and may pair off with such an "explanation" as that chorea is due to "disorder of volition." He may fall, either because some muscles over-contract and destroy his equilibrium, or because he loses power in some.

There are certain movements occurring in slight epileptic seizure which, I submit, should be distinguished from spasm, either tonic or clonic. A common one is a movement of mastication; another is a swallowing movement; there is such an one as rubbing the hands; and there is sometimes writhing of the arms during suspended respiration. To call them movements is to tacitly deny them to be spasm.

Of course, all movements, as well as all spasms, imply nervous discharges; but the former imply slight discharges at particular intervals. I submit that the movements of mastication, swallowing, etc., occurring in a slight fit cannot depend on an excessive discharge—that is, on an epileptic discharge.

It is well to mention some of the names patients or their friends give to slight seizures: "Sensations," "turns," "spells," "thinkings," "stupidities," "reveries," "forgetfulness," "faints," "giddiness," "becoming absent," "quiet faints." I was consulted by one epileptic for "dropping off to sleep in the most extraordinary way."

Now, the slightest of these so-called sensations are very often the sole seizures for weeks, or months, or years, before the severe fits come on.

When slight seizures have preceded the severe fits, the patient may, until questioned, tell us nothing about the slight ones; he dates his illness from the first severe fit; or, if the slight seizures occur mixed up with severer ones, he mentions the severer ones only. He does not call his slight seizures fits, but "sensations," "symptoms," etc. He may say, "I've not had a single fit since I saw you, but I have had many sensations." These "sensations" are really slight fits, or, when considered in relation to the severe ones, incipient or abortive fits.

We speak first of the mental side of the slight cases—of the affection of consciousness. As the definition or type of the slight seizure is vague, it may be well to give an example.

A boy, ten years of age, had been subject to fits for two years. At the first, they were so slight that his mother said they thought he was "in a deep study"; he used to sit "as if he were thinking." The attack was only of a few seconds' duration, and no alteration of complexion was noticed. Later on, in his fits he would turn up his eyes—slight spasm of very small muscles. Later still, there was, besides this, occasional shaking of the body (imitated before me by tremor). I saw one. Whilst sitting, the boy blinked his eyes; he did not alter in colour; he then drew in a deep breath, and rapidly all was over. The paroxysm was so sudden and short that I could not make any special investigations.

Now for cases which do not fully resemble the type, for cases which are sub-typical. This boy lost consciousness, but it is to be insisted upon that there may be epilepsy proper without loss of consciousness. There may be defect of consciousness only. For example, a patient may say that he is not unconscious in his attacks, but add that he does not know where he is, that he hears people talking, but does not know what they say; this shows that he has not *lost* consciousness, but it shows also that he is defectively conscious; in popular language, he is "confused," becoming so suddenly, and remaining so for a few seconds only. "To be confused" and "to be defectively conscious" are synonymous expressions.

Then we have evidence from what we observe that a patient in an epileptic paroxysm is not absolutely unconscious. The patient may not only utter incoherent words, but may reply to questions vaguely, as, "What do you say?" or, more definitely, he may reply quite correctly. There is the difficulty here that the talking, vague or definite, may be just after a very slight and transient fit; but in an empirical or clinical inquiry for diagnosis the distinction is of little moment.

So our first exception or sub-type is that the patient may be only defectively conscious, or, popularly speaking, simply confused.

More than this, there may be, according to the patient's report, no affection of consciousness at all. It is well known that a common precursor of affection of consciousness in a paroxysm of epilepsy proper (slight or severe fits) is a strange sensation at or near to the epigastrium, "in the chest," or "at the heart," some patients may say. Children call it "pain," or "stomach-ache." The sensation is variously described by adults as "sinking," "nausea," and it is frequently said to be accompanied by fear. Now, patients will tell us that, for months before they had any affection of consciousness preceded by an epigastric sensation, they occasionally had that sensation alone, and thought little or nothing of it; some thinking it to be owing to disorder of the liver, although it was sudden and transient (paroxysmal). This, then, would be a second sub-type of epilepsy; it would be for a time all the paroxysm.

It may be said, your "definition" by type here breaks down utterly for practical purposes, for in this sub-type consciousness is not affected at all. If literally taken it does break down; we ought and must take such cases as sub-types. It is certain that these sensations may occur paroxysmally for months without anything further. The fact that such a paroxysmal sensation is often epileptic in nature is shown by the future of the cases: undoubted epileptic affections, attacks with convulsion and tongue-biting, come on, and each of these severe paroxysms is preceded by the sensation. What was once all is now the so-called warning of the severe fit. Strictly speaking, it was when it occurred alone a rudimentary or incipient fit of epilepsy; and when it becomes what we call a warning, since a severe fit follows, it is the inception of the severe fit. Besides, I should doubt whether consciousness was not affected to some trifling extent. However, I state what patients say, and at any rate the affection of consciousness is insignificant or most transient, or both.

Then there are cases of slight epileptic vertigo. By epileptic vertigo I do not mean any sort of "confusion in the head," I mean real vertigo: a sensation of movement of external objects, or a sensation of turning of the body itself; at the beginning of some severe attacks of epilepsy proper, the patient does actually turn to one side, "turns right round," as the friends say. Vertigo, with apparent displacement of external objects, is, I think, a sensation accompanying turning of eyes (to right side only?) Hence I do not use the term epileptic vertigo as the name for a slight *degree* of seizure, but specially for a slight seizure of a particular *kind*, or for a seizure beginning in a particular way. I will not say there is no defect of consciousness in cases of epileptic vertigo, but it may be very slight and transient, and, according to the patient and his friends, none. I do not believe that consciousness is entirely unaffected in any sort of giddiness, however caused. Let a man try to think, when giddy, of something complex and difficult to him, to tackle some problem he could just manage to solve when well; he would fail when giddy.

So, then, whilst we take paroxysmal *loss* of consciousness as our type, there are sub-types. There is not only loss of consciousness, there is defect of consciousness, and there is also no affection of consciousness. The paroxysmalness of the seizure and the sequel show that each is truly epileptic; they occur at different periods of the same case. Indeed, we may have each of the three degrees at different times in one case.

CLINICAL LECTURE

ON A CASE OF

SUPPURATING HYDATID CYST OF THE LIVER.

By ALEXANDER SILVER, M.A., M.D.,

Physician and Lecturer on Clinical Medicine and on Physiology at Charing-cross Hospital.

GENTLEMEN,—The case which we have to-day to consider is one of far more than ordinary interest; moreover, at the stage to which we have now arrived in its history, we are in a position to speak with a degree of certainty not always attainable in such cases. The patient is a comparatively young married woman, aged twenty-seven, whose family history is good, and who has herself till recently been, as she says, perfectly healthy. She has been married for four years, during which period she has menstruated regularly, and is childless. The best history we can obtain of her present illness is very imperfect. About three months before her admission, which would bring the time to the end of June or beginning of July, she began to feel out of sorts, but the only thing she then complained of was a tendency to diarrhœa. Six weeks later she began to waste somewhat, and at the same time her appetite became impaired. Then, too, she began for the first time to complain of pain, or rather uneasiness, in the region of the stomach, and this continued up to the time of her admission. But so far was she from being alarmed about this, or even materially inconvenienced by it, that she did not apply for medical relief until a day or two before she came as an out-patient to this Hospital, when she was seen by Dr. Bruce. She was admitted as an in-patient on September 26, 1878, and at that time she had over the region of the stomach the marks of an application of iodine, but nothing further was to be noted on the surface beyond a certain general pallor. On closer examination, however, a tumour was discovered in, and rather to the left of, the epigastrium, but at this time its size was not great, and the patient had been altogether ignorant of its existence. Pressure on a certain part of this tumour which lay to the upper and left portion of the epigastrium caused pain, but this was apparently localised, and did not extend over the whole region occupied by the swelling. Careful examination showed a dulness over the area of the tumour, which on the one side was continuous with that of the liver, and later, when the tumour had grown considerably, extended on the other quite to the left side of the abdomen. Behind it the tympanitic note of the stomach could be elicited. Above, the swelling reached as high as the diaphragm, and moved with it in inspiration and expiration. Below, the margin was rounded and more distinctly defined than elsewhere, reaching ultimately to within a short distance of the umbilicus. Palpation gave the idea of a tense and somewhat elastic body not very far beneath the abdominal wall. Moreover, it communicated, when carefully handled, a somewhat imperfect sense of fluctuation not altogether to be depended on. Still further, over one particular spot, about two inches above the umbilicus, and somewhat to the left of the mesial line, there was to be heard by the stethoscope a distinct to-and-fro sound, similar to that produced by a roughened pleura, and, like that, synchronous with expiration and inspiration. Again, there was a distinct heaving impulse in the tumour, simultaneous with the cardiac systole, and readily propagated to the ear by the stethoscope, partly as sound, partly as feeling.

Besides these there were two other factors in the case which could not well be overlooked. The first of these was the temperature, for, though that might be normal in the morning, it always ranged high in the evening—suddenly rising one evening to 104° Fahr., whilst it had stood at 98·6° Fahr. in the morning. By midnight it had fallen two degrees. Throughout this portion of the history of the case the variations continued, though perhaps in a less marked degree than that just narrated.

From the first the urine was albuminous, and this persistently so, though the quantity of albumen was never very great; but there was no pitting of the surface, nor any other of the ordinary signs of renal mischief. I may further say that a slight diarrhœa, which had at one time been a feature in the case, ceased after admission, and was succeeded by somewhat troublesome constipation.

Thus presented to us, the case was far from a simple one, for in such instances we must found our opinion quite as much on what we cannot detect as on what we really find out, by the process of exclusion as well as that of actual observation. Broadly, the facts observed were these:—A tumour of considerable size, tense, somewhat elastic, but smooth and rounded, not hard but yielding, growing painlessly, but painful at certain spots on pressure, lying mainly in the left epigastrium and hypochondrium, extending above to the diaphragm, below nearly to the umbilicus, on the right apparently continuous with the liver, on the left extending to the wall of the abdomen, movable with respiration, and so giving rise to a to-and-fro scraping sound, heaving besides with each beat of the aortic pulse. Neither must we forget the albuminous urine, and the high but variable temperature.

Put in this way, a skilled physician might have no great difficulty in diagnosing the case: But the mental process through which we must all go, more or less assuredly and more or less speedily, is none the less interesting to the majority of us.

The tumour had seemed to commence, and at all times was most distinct, in the left half of the abdomen; it could never, even though it passed the mesial line, be called a right abdominal swelling. This, coupled with the high temperature, led one at once to suspect an enlargement of the spleen; but though many of the characteristics were not incompatible with this view, certain were clearly so. Thus the tumour, though left-sided, did not press the stomach to one side, but pushed it behind it; in other words, the mass lay in front of, not to the left side of, the stomach. And when we have an enlarged spleen, big enough to extend to the mesial line, we should hardly expect it to occupy such a position—a situation entirely in front of, not the least to the left of, or behind, the stomach. Moreover, such enlargements are rare in this country. They occur but seldom, except in those who have been much abroad; and they never give that kind of semi-elastic resistance here so well marked. We were, on the whole, justified in putting this view on one side.

Nor, on the other hand, could we recognise this growth as one of the liver, such as we commonly see; for it was, as above said, decidedly and markedly left-sided. There was no undue irregularity of the liver to be made out on the right side. Its margin was somewhat lower than usual, and every indication pointed at a conclusion that we had to do with a swelling which did not affect at least the great part of the liver. True, we might have here a tumour affecting only the left lobe of that organ; but such are rare. Decidedly we had not before us either a uniform enlargement like amyloid, or certain forms of fatty liver; neither was malignant disease a probable explanation deserving much consideration. There was no antecedent history of malignant disease elsewhere, and primary cancer affecting any part of the liver itself is rare. When, in persons like our patient, we find evidence, more or less distinct, of cancer of the liver, we commonly seek for signs of a primary growth elsewhere, and we often find it in the pylorus. Such an origin and such a view of the nature of the mischief in the case before us was not overlooked. But there had been no stomach-symptoms of any grave importance, and the situation of the mass was not that usually occupied by pyloric cancer. You will, I doubt not, hereafter observe that where such a disease as cancer of the pylorus does exist, it may last for a long time without any very well marked symptoms, provided there is no breach of the internal surface. You may also find that the pyloric end of the stomach is dragged downwards almost as far as the umbilicus, apparently by the weight of such a new growth. But, even whilst duly recognising these facts, such a history would hardly suit our case. Above all, the age was against it. Nor could the general symptoms be made to tally with such a supposition. We

had to account, it must be remembered, for a comparatively painless tumour, growing gradually and imperceptibly, not affecting the general health, but giving rise to a temperature sometimes as high as 103° Fahr. Clearly, pyloric cancer would not do this.

Another supposition still was open to us. From some unknown cause, an abscess might have arisen in the abdominal walls. This would readily account for the high temperature, but the swelling would hardly have been so painless, and the sense of fluctuation would have been very much more distinct. Moreover, as it seemed to me, the existence of that peculiar sound of friction already mentioned pointed at something within the abdominal cavity, not in its walls merely,—something which would give rise to two roughened peritoneal surfaces, and which, moving as the tumour did with each breath, would cause the to-and-fro sound referred to. An abscess in the abdominal wall would be very unlikely to do all this.

It may seem a long story to go through all these suppositions which were *not* right, but it is only by the exclusion of such that we could arrive at the truth. Nay, more, there were others still which deserve attention. I was asked if I was quite sure that the tumour was not an aneurism. Remember that there was a distinct and well-marked impulse, evidently aortic, to be felt on laying the hand lightly on the abdomen; but I was careful to point out to you that this was a straight up-and-down heave, and wanting entirely in that extensile motion to be felt on the sides of an aneurismal swelling. But such a suggestion was far from being *mal à propos*, for I have known abdominal aneurism diagnosed in cases where there was absolutely no swelling—merely the relaxed condition of the vascular walls not unfrequent in women of a hysterical turn, and a flabby state of the body generally. Any such view here was, as I have said, untenable. So, too, was any suspicion of ovarian mischief in such a case, inasmuch as the lower boundary of the growth was distinctly marked, and never reached the level of the umbilicus.

In all, or nearly all, of the suggestions made already as to the probabilities of the case, one feature has been overlooked. We must not forget the albuminous urine, accompanied moreover with a deposit of bodies commonly recognised as pus corpuscles. There was no antecedent history of anything likely to give rise to albuminuria; and, as far as could be made out, the abdominal and the renal mischief went together as depending on the same cause. To mention one thing, cystic disease of the kidney was at least a possible factor, perhaps even the chief, in the case. It might, indeed, have been the disease itself. Here again, however, anatomical details came into play to help us in our inquiry. You do not forget the actual position of the kidney, lying behind all the abdominal viscera, so that if it had been enlarged so as to push forwards and upwards to the extent demanded by the exigencies of the case, some portion of the intestines would most probably have been pushed before it, and we should certainly have been in possession of clearer indications of the existence of such a condition of things when the back was examined. But no such theory would suit the facts.

Now, as I said before, a skilled physician would very likely have diagnosed the case at once; but we are not all skilled physicians, and, as it seems to me, it is of peculiar value to you to go through step by step—exclusion after exclusion—the most probable conditions which could give rise to the indications already detailed. The man of experience would almost certainly, in his own mind at least, have conjured up some case which would give the clue to this. The situation, the semi-elasticity, the doubtful fluctuation, the history, and other features in the case, led certainly to the notion that we had to deal with a hydatid tumour involving almost entirely the left lobe of the liver, pressing the stomach backwards and the spleen outwards; that this tumour had become adherent to the diaphragm and to the anterior wall of the abdomen; that it moved; and thus that, where non-adherent, its roughened surface gave the to-and-fro sound heard during the respiratory movements, at one particular point. Occupying a considerable space in the abdominal cavity, the swelling was practically bound down by the abdominal walls, and thus received the impulse of the aorta. But this was not enough: the high temperature, the to-and-fro sound, above all the albuminuria, had still to be accounted for. Two of these could easily be explained on the supposition that we had here, as often happens, a hydatid cyst, which had become inflamed—perhaps by rupture or disorganisation of the cyst-wall and the admission of bile, perhaps from some cause more obscure. That would account for the high temperature, probably also for the roughened surface and the peritoneal friction-sound. The position of the tumour would do the rest. From its size and situation it was clear that the mass would press on the left renal region; the vein would be more readily compressed than the artery. A condition of stagnation in the blood-flow in the organ itself would produce a certain degree of albuminuria; whilst a diapedesis of the white blood-corpuscles, always ready to take place under such conditions, would account for the slight deposit, apparently purulent, which was observed.

Still, such a matter as the diagnosis in a case of this kind could not be thus left in doubt if it were possible to overcome the difficulty. And to this end Mr. Barwell, with due precautions, proceeded on October 11 to aspirate the tumour. I say with due precautions; for, putting altogether on one side the surgical aspect of the case, it is of vital importance when using the aspirator to know that the needles themselves have been rendered harmless by a due soaking in such a fluid as carbolic-acid-and-water, or some similar antiseptic solution. We were in good hopes, if our diagnosis was correct, that by this means we might empty the cavity, allow it gradually to shrink, and so proceed in time to a cure. We were sadly disappointed when, the needle having been introduced, and the vacuum created, nothing made its appearance—nothing flowed. Our research was apparently fruitless. Not completely so, however; for the patient having been carefully attended to, the microscope was called into requisition. A drop of fluid from the hollow needle was blown on to a microscope-slide, and so examined. Oil was found in plenty—that was from the carbolic oil in which the instrument was dipped; blood-corpuscles were also to be seen—that was to be expected; but the field was for the most part occupied with pus-corpuscles in a state of fatty degeneration, and, what was from a diagnostic point of view most important, echinococcus hooklets were fairly abundant. The diagnosis was no longer doubtful.

Nevertheless, the difficulties to be encountered were far from being overcome. We had plainly to deal with a suppurating hydatid cyst. What, then, to do? To leave it alone was to run the risk of death from sheer exhaustion, or far more probably of rupture into some neighbouring viscus, into the stomach, intestine, peritoneum, pleura, or even pericardium. Of these the first two might lead to safety—it was only a *might*; the last would be almost certainly fatal. By operating immediately the risk would not have been greatly lessened. The aspirator had, as it often does in such cases, entirely failed, and the lesson taught by the to-and-fro friction sound was not forgotten. Operation by the knife in the situation most suitable—that, to wit, in the median line—was distinctly dangerous, for escape of the contents of the cyst into the peritoneum would almost certainly prove fatal, and it was quite clear that the adhesions were limited in extent. A few days decided us; it was plain that the patient would sink if not relieved, and on October 22 it was resolved to proceed at all hazards. Aspiration was again tried by Mr. Barwell, but though a few drops of thick purulent-looking fluid came away, nothing was effected for the relief of the patient. With a view to subsequent proceedings, the needle had been introduced in the mesial line, and now being used as a director, the integuments were carefully cut through, and finally the sac slit open for a certain distance. A clot of blood for a moment stopped the opening; it was removed, and an unmistakable hydatid, or perhaps I had better say echinococcus cyst, next presented itself. This had to be taken away piecemeal, after which came a gush of purulent-looking fluid so abundant as to escape in every direction, though all efforts were made to collect it. More than forty ounces were collected, but a vast deal escaped. All this was done with what are called due antiseptic precautions. Then the cavity was well washed out with carbolic acid and water, everything carefully adjusted, and the patient removed to a clean bed.

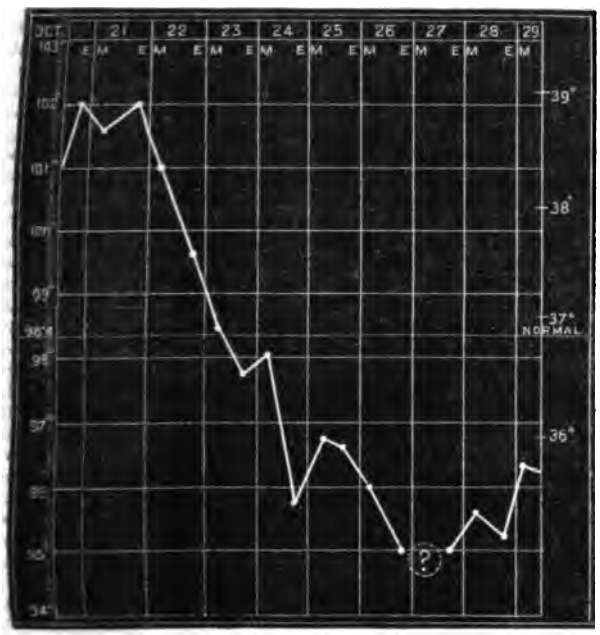
The fluid removed was exceedingly thick, had no putrid odour, contained the shrivelled remains of many daughter-cysts, and had a greenish kind of tinge. Some portions seemed decidedly thicker and more nearly approaching the half cheesy-like condition often seen in old hydatid cysts than did others. This was best seen when the sac was being

washed out, and the last portions were coming away. One point most noteworthy was, that just as the last of the contents were being expelled a small quantity of nearly pure bile appeared with them.

The patient recovered well from the chloroform, but all night long was harassed with sickness and vomited several times.

Next day, when the wound was dressed, much bile-stained fluid had escaped, and when I next proceeded to wash out the cavity with carbolic acid and water it was found that almost the whole of the upper portion of the fluid retained in it was pure bile. At the bottom of the sac was a considerable quantity of the thick semi-pultaceous material already spoken of. There was never the slightest trace of inflammation around the wound, but bile kept welling out from the very beginning.

Here it will be well to refer to the temperature-chart of the case (a portion of which is now before you)—certainly one of the most instructive I have ever seen. You will see that the immediate result of the operation was a marked and decided fall; that this fall was persistent—only *too* persistent; but in such marked contrast with what I and others have seen in cases where without due care large collections of purulent material have been evacuated, that the results are to us tenfold more striking.



The temperature continued to fall till at last (below 95° Fahr.) the available thermometer failed to register it. Sickness and hiccup continued, and the strength got less. There was in the latter part of the case no more curious phenomenon than the condition of the kidneys. The cyst was tapped on Friday. On Saturday she passed twelve ounces of urine. Then it stopped. During the whole illness the bowels were obstinately constipated, and at this time were completely torpid. No fluid could thus have been evacuated along with a motion, and so we had to face a case of complete suppression of urine. This was absolute for two days, incomplete for a longer time. Not a drop of urine was passed, and there was no urine in the bladder, yet there were no signs of uræmia. There was only one thing to which we could attribute this—the unusual and protracted drain of bile by the abdominal opening. That continued to discharge freely; and it was not until some days after the operation, when, following upon—I dare not say in consequence of—a digitalis-poultice to the loins, the urine again began to flow. All the bile did not, however, escape by the opening, for as unfortunately the sickness, hiccup, and vomiting persisted in spite of all we could do, we had an opportunity, little sought for, of seeing that the vomited matters were partly bilious. But all these things told. Food could with difficulty be taken, and, I fear, not at all digested. The drain on the system continued. Pepsin and hydrochloric acid were given along with food. Nutrient enemata were tried, but she gradually got lower and lower, until at last she sank quite suddenly.

A plain record of the post-mortem examination, made thirty-six hours after death, may suffice to complete this case, so full of interest. But as this interest mainly centred in and around the tumour, much was sacrificed to preserve the relations of the parts as nearly as possible intact.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.A., B.Sc., M.D. Lond.,
Assistant-Physician to Charing-cross Hospital, etc.

THE occurrence of relapse in typhoid or enteric fever is both interesting and important, and is far from uncommon even amongst patients whose cases are watched with hospital regularity. In out-patient practice (and in outside practice generally) it is frequently the first proof that we are dealing with typhoid—especially in those eminently obscure cases in which persons "walk through" their primary attack, and suffer so little inconvenience, comparatively speaking, that their malady is put down to the indefinite terms—debility, cold, diarrhœa, constipation, dyspepsia, and so on. These cases, when diagnosed, are known in clinical medicine as "ambulatory typhoid"; and it would be difficult to find a better designation for them. No physician can have attended to out-patient work for any length of time without meeting with instances of this form of the disease, and, I venture to add, without meeting with occasional relapses in these instances, to the clearing-up of doubts as to the true nature of the malady he has been dealing with. The same may be said of the busy practitioner; and I am strongly of opinion that relapse in typhoid fever is much more common than is usually supposed, and this view has been strengthened by the cases of ambulatory typhoid with relapse which I have come across in the out-patient room of Charing-cross Hospital during a number of autumnal epidemics of the disease. On such cases alone it would be absurd to attempt any definite conclusions, for of them only casual observation could be made, but they are of value when the evidence they yield is taken with that of cases in which thermometric and other observations havebeen pursued with regularity. I shall quote several such cases watched by myself, and am fortunate in having at my command a series of examples of relapse in typhoid which were under the care of my colleagues at Charing-cross Hospital, and in which the temperature-charts were most carefully kept. To the kindness and courtesy of my friends, Dr. Julius Pollock, Dr. Alexander Silver, and Dr. T. Henry Green, I owe, in fact, the chance of adding to the illustrations of this paper many most valuable cases; and I cannot sufficiently acknowledge my indebtedness to these gentlemen.

I have spoken of relapse as not being uncommon in typhoid fever, and now would add that double and treble relapses occur, and that in some cases a fourth relapse is met with. All these must be necessarily obscure where the thermometer cannot be used except at odd times; but the fact of their occurrence should lead us to be cautious in the treatment of those persons who *linger* in their convalescence after primary typhoid, not only weeks, but even months. It is asserted by many continental writers that relapse occurs after months of freedom from fever: in such cases may there not have been intermediate relapses passed by clinically because of their mildness? The occurrence of relapse, obscure unless the thermometer is used, is a clinical fact, and is perfectly well known to writers on the acute specific diseases; but I venture to think this fact is not sufficiently urged in medical literature, nor at the bedside, which is of more importance. The obscurities in the natural history of that disease which we call typhoid or enteric fever are numerous still; and if the cases and temperature-charts which will be given in this paper help to clear away any of these, I shall be satisfied. The value of the thermometer is particularly well shown by a case under the care of my friend

Dr. Silver, at the time I am writing this paper. A young girl has a relapse of typhoid, and her temperature has risen to 105° Fahr. by the fifth day of that relapse, her general condition continuing that of convalescence after the primary attack. But relapse has in most cases a marked resemblance to the original attack, and in most cases one or other of the typical signs of typhoid are met with. The stools are typhoid in their character, and mostly a typical eruption if carefully looked for is found. Relapse is as much a disease of contagion —no matter where that contagion comes from—as is the primary fever, but I am not prepared to discuss the bearings of typhoid-relapse on contagion, though I am of opinion that they must be very suggestive to those well acquainted with the facts and theories of infection. It is difficult to say why relapse does occur in typhoid, and still more difficult to say why in some instances it is met with even in the third or fourth degree. Very probably the explanation will be found in the decided and characteristic local lesions of the primary disease in Peyer's patches, which in ordinary and uncomplicated cases persist after the cessation of the febrile period, and require that the physician should watch his patient's condition for a long time after the disease appears to have ended, with the same daily care and precaution taken during the height of the fever. Liebermeister, in "Ziemssen's Cyclopædia," asserts that relapse of typhoid fever is most common after severe primary attacks; but this is a dangerous view clinically, and should not be advanced unless determined beyond all question. It is a view disputed by many English physicians, and, with all deference to foreign opinions, I am convinced that the cautious practitioner should take the side of our own observers on this point. In ambulatory typhoid, which owes its obscurity to its mildness, relapse is not uncommon, and is very likely due to the fact that the primary disease has been little regarded, and convalescence left to take its own course. Dr. Maclagan of Dundee, whose opinions on this subject are those of valuable experience, thinks relapse is seen only in those cases where constipation has accompanied the primary attack, and that the healthy glands are affected by sloughs thrown off from those diseased by the primary fever. And if it be true, as advanced above, that enteric fever of obscure type is not infrequently followed by relapse, and that the true nature of the disease is often declared with certainty by the accident of relapse, the views of Dr. Maclagan demand the fullest consideration, for the obscure cases are most often obscure because of the absence of diarrhœa in them, and the impossibility of determining the nature of the evacuations. I am speaking, of course, in particular of ambulatory typhoid, which, however, it should not be forgotten, is often, though apparently mild, so severe in its local lesions as sometimes to prove fatal—and suddenly fatal—by perforation of the ulcers in the intestines. And, on the other hand, in some of the cases which I report, relapse followed where diarrhœa had been a decided and dangerous symptom. There yet remains much uncertainty in regard to this peculiar disease in all directions.

Relapse in typhoid fever is defined as a "recurrence of the original attack, with all the phenomena of that attack." But this is not an accurate definition, for relapse differs in many respects from the primary disease; and oftentimes a second relapse differs from a first, and a third from a second, without our being able to explain the cause of such differences after the most careful clinical examinations. I will not attempt a more decided definition than that usually given, but rely on the subjoined cases to prove what has just been written. Relapse, of course, bears a strong resemblance to primary attacks, and we should not be justified in diagnosing relapse except through this resemblance; but, at the same time, I maintain that the points of difference are sufficiently striking. In all the cases of relapse recorded in this paper, typhoid stools of typical kind were met with, and in almost all a typical eruption. These things are of importance, because, after the termination of typhoid fever, irregular rises of temperature, accompanied by more or less severe general symptoms, are not uncommon; and these have at times led to the suspicion of true relapse. In them we have instances of "false relapses," which are technically described as "*recrudescences*"; but the regularity of the temperature in true relapse—rather than the eruption, stools, etc., which may not be typical either in primary disease, relapse, or recrudescence—as compared with those uncertain elevations of fever which are common in the convalescent stage of any acute specific disease which can leave a sequela, readily distinguishes relapse from recrudescence. The latter term, "recrudescence," is a most useful term; but it is open to this objection: that the temperature with which it is attended is due to mere accidents, and not to a true return of the original disease. In no disease more than in typhoid fever do the consequent lesions linger longer; and any interruption in the natural healing of these lesions must modify the temperature. It is thus that "recrudescences" are mostly brought about, and a familiarity with them can only be attained at the bedside, because, more than all other acute specific diseases, typhoid fever presents itself in unwritten variety—in variety so great and so anomalous that many, well acquainted with it, believe that it will ultimately be subdivided.

As regards Recrudescence, it is stated by the best authorities that it may be distinguished from relapse in typhoid because there is a clear interval of apyrexia between the latter and the primary attack. To this view exception may be taken, for in some of the cases of relapse recorded below the interval of apyrexia was not appreciable even by hours, and in others relapse supervened on relapse—a fact which has been noted by other observers. Again, "recrudescence" was met with after an interval of several days' apyrexia; and in a third group recrudescence (a false relapse) and true relapse were mixed up in the most striking manner.

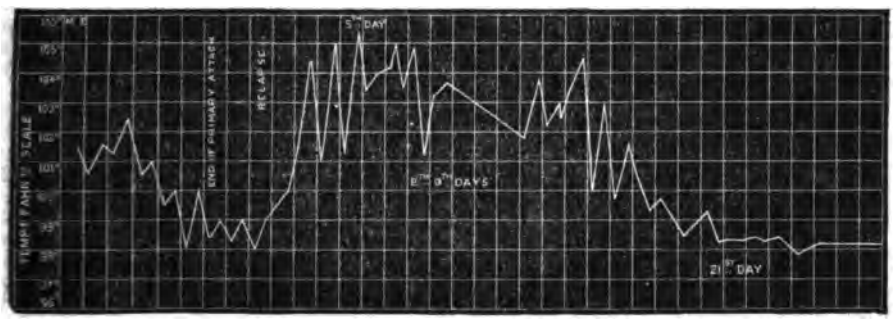
Most writers insist that relapses have usually a shorter duration than primary attacks. Dr. Murchison, in his classical work on Fevers, puts their mean duration at fifteen days, relying on fifty-three instances. The apyrexial interval in these averaged eleven days, and in seven cases only did relapse last from eighteen to twenty-one days. Liebermeister found that out of a hundred and eleven cases at Basle thirty-seven lasted longer than the original attack, that six had the same duration as, and that sixty-eight had a shorter duration than, the primary disease. There is therefore considerable diversity of fact and opinion on the duration of relapse; and the same may be said, for that matter, of the duration of the primary fever. Herein I find an excuse for adding some examples of the disease to medical literature, especially as the average duration of primary relapses closely approximated to twenty-one days, and the relapses were under the observation of several physicians. I shall submit temperature-charts of most of the cases on which my opinions are founded, and will add examples of accidental recrudescence, so that true relapse-charts may be compared with these. I postpone further general remarks until I have submitted the cases. The charts of true relapse, I think, will declare a fixed consecutiveness in the nature of the fever, and thus be as valuable as charts of primary typhoid. In all the examples of relapse to be recorded undoubted evidences of typhoid fever were found, though in the general description of each case, for the sake of brevity, particulars are frequently cut out.

But though the descriptions of cases are made as brief as possible, and no lengthy account of the general symptoms of each case given, at the same time nothing is omitted bearing on the temperatures met with in relapse of typhoid fever, or on the conclusions which I shall venture to submit. It should be distinctly understood also that there has been no "*choice*" of cases in the series, because this makes comparison of their charts all the more valuable.

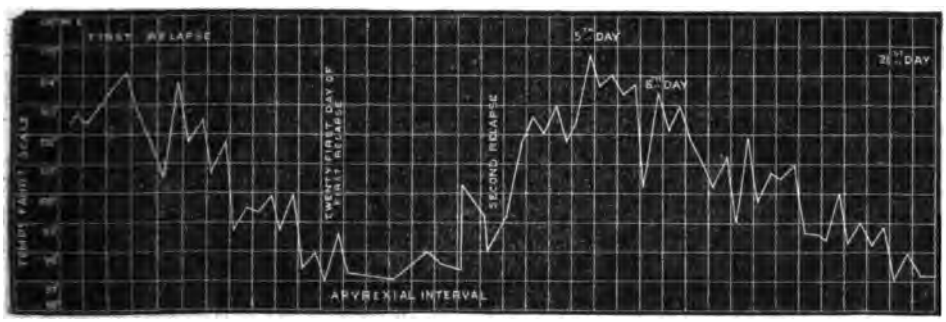
Case 1 (E. D., a female, aged twenty), was admitted into hospital in the fourth week of an attack of typhoid fever. To the end of this fourth week her temperature fell rapidly, and reached the subnormal. Then convalescence commenced, but after only two days of apyrexia, during which the temperature continued subnormal, a relapse set in, and from subnormal the temperature ran up without intermission to 104·4° Fahr. on the third evening of relapse, and on the fifth evening to 105·4° Fahr., there having occurred deep falls, but not below 101° Fahr., on the mornings of the fourth and fifth days. From the fifth day the temperature remained high, with a slight downward tendency, to the eighth day, when there was a fall from 104·8° Fahr. to 101·2° Fahr. The fever rose again, but not to previous levels, and its general tendency henceforward was to fall to subnormal by the twenty-first day of the relapse. Sudden exacerbations were met with on the thirteenth and fifteenth days; and on the latter day a new typhoid eruption was observed, and diarrhœa of typhoid character. The patient was very ill at this time, but the temperature very quickly abated, and permanent convalescence was established with the termination of

fever on the twenty-first day. The woman had not a single bad symptom afterwards, and was restored to health with remarkable rapidity. The chart in her case is appended.

Case 2 (a female, aged twenty, admitted during a first relapse of typhoid fever): The history left no question that she was suffering from relapse, though it was of course difficult to determine the exact day of its onset. Diarrhœa had been the first symptom, and set in during convalescence from an "obscure" illness, which the history indicated must have been an attack of typhoid fever. The patient at the time of admission had reached probably the ninth day of relapse, and her temperature did not rise above 102·4° Fahr.—that is to say, it was comparatively low on this day of the disease. It rose after admission into hospital for two days (104° Fahr. on the eleventh evening), and then fell, with a single exacerbation on the fourteenth day, to subnormal on the twentieth day of the attack. In such a case the variations in the temperature after the patient's admission into hospital, it should be remembered, might be due in part to the change in the surroundings. With the beginning of subnormal temperatures came convalescence, and the patient went on well for five days; then the temperature ran up from 97·4° Fahr. to 100·2° Fahr.; but this was but a temporary recrudescence, and lasted only a day. On the seventh day of convalescence the temperature was normal, and then a true second relapse began, in which the temperature rose uninterruptedly from 98° Fahr. to 102·8° Fahr. on the third day, and with slight daily remissions to 104·6° Fahr. on the evening of the fifth day of this relapse. It remained high, with slight morning remissions, to the eighth day, when it fell very quickly nearly four degrees, and this fall was attended or followed by a general improvement in the patient's condition. The fever again increased to 103·2° Fahr.; but this was but a temporary rise, and, as the chart shows, there was afterwards a downward tendency, so that the temperature became subnormal on the twenty-first day of the relapse. Afterwards there was a rapid convalescence. The two relapses in this case had a marked similarity; and neither accident nor treatment interfered with their course.



Case 1: Relapse of Typhoid (a female, aged twenty).—Primary attack ended about twenty-eighth day. Apyrexial interval two days only. Thermometer gave the first indications of relapse. In relapse, highest temperature reached on the fifth day. Quick rise of temperature at onset of relapse; from 98° Fahr. to 104·4° Fahr. (nearly six degrees and a half) by the third day. Decided fall on the eighth day. Exacerbation of temperature on thirteenth day (*vide* text). Termination of fever on twenty-first day of relapse.



Case 2: Relapse of Typhoid (a female, admitted during a first relapse).—Temperature was low on the ninth day and sank to subnormal by the twentieth day, and remained subnormal for five days. On the fifth day of subnormal temperature there was a temporary recrudescence. On the seventh day a second relapse began, and the temperature rose nearly eight degrees by the fifth day. There was a decided fall on the eighth day, and fever terminated on the twenty-first day.

(*To be continued.*)

CASE OF ABLATION OF THE UTERUS FOR CANCER.(a)

By WILLIAM ALEXANDER, F.R.C.S.

The surgical wards of the Liverpool Workhouse are never without a number of cases of cancer of the uterus in different stages of the disease. Before admission many of them have had the os treated with caustics, various cauteries, the écraseur or the knife, and, as a general rule, when admitted they are beyond relief, except what sedatives and nursing can give. My experience of such cases has led me to form a rather low estimate of the relief afforded by partial operations, and I have long entertained the opinion that, to insure a reasonable hope of success, complete ablation is the only remedy worthy of consideration, provided it be performed early enough, and without the frightful operative mortality that has hitherto accompanied it. It was with much pleasure, therefore, that I read in the *Medical Times and Gazette* for October 19, 1878, a description of the successful removal of the uterus in two instances by Dr. Freund of Breslau. The patients were fifty and sixty-two years of age, the disease cancer of the cervix, and Dr. Freund believes that by his method of operating the risk is likely to be much smaller than formerly. I operated on the dead body three times, according to the directions given (*loc. cit.*), and found no difficulty in achieving the desired end.

On October 18, Susan P., aged thirty-eight years, was admitted into the workhouse, suffering from cancer of the uterus. The os was rough, irregular, broken down, and bleeding, and the body of the uterus about two to three times its natural size. She suffered from great pain at nights, so that sleep could not be obtained even with large doses of opium and morphia. The patient was a prostitute who had enjoyed good health all her life till May last, when she was somewhat suddenly attacked with flooding, accompanied by shooting pains in her pelvis and thighs. These symptoms continued with varying severity until her admission. There was no cachexia; the patient was rather stout; the uterus was movable; the heart and kidneys showed no signs of disease; and there was every reason to believe that the cancer was confined to the uterus. I put the facts of the case before her, and told her that a serious operation alone afforded a chance of recovery, when she at once expressed her willingness to undergo the operation. By regular diet she was prepared until November 6, when, with the temperature of the room 65° to 70° Fahr., I opened the abdominal cavity antiseptically from the umbilicus to the pubis—a 2 per cent. solution of carbolic spray being blown over, but not into, the abdomen. The abdominal wall was loaded with fat as well as the mesentery, and the incision was altogether inefficient to enable me to work in the pelvis. Although the uterus was movable antero-posteriorly, it could not be elevated vertically from its bed. The incision was prolonged to a little

(a) Read before the Liverpool Medical Institute, November 21, 1878.

beyond the mid-point between the umbilicus and the ensiform cartilage; the intestines were removed from the pelvis, and held out of the way enveloped in a soft linen cloth wrung out of warm carbolic acid lotion (one to fifty). The right Fallopian tube was affected with disease up to the ovary. The broad ligaments were ligatured in three places, as described by Dr. Freund. A piece of the lateral wall of the vagina was included in the lowest ligature, and, on account of the disease extending so far on the right side, the highest ligature was placed outside, instead of inside, the ovary. On the left side there was a small transparent adherent ovarian cyst. This was left alone. The lowest ligatures were the most difficult to introduce. A needle armed with a single thread was passed up along the vagina, and through its posterior wall, close behind the posterior lip. One end of the thread was retained in the abdomen and the needle withdrawn. The outer end of the same ligature was in the same way passed through the anterior vaginal wall, the limits of the bladder being marked by a catheter in its interior. The posterior thread was then passed through the round ligament, and the two ends tied tightly. When the six threads were made fast, the uterus and all the structures inside the ligatures were removed by a horseshoe-shaped incision. Only one little vessel spouted, and it was immediately tied, so that very little hæmorrhage occurred during the operation, not more than four ounces of blood at the utmost being lost. The uterus was removed, the abdomen well sponged out, and the vaginal walls were brought together. A small suspicious piece of tissue was then removed from the anterior vaginal wall. The silk ligatures were drawn into the vagina, and the abdominal walls were then brought together as rapidly as possible, as I now noticed for the first time symptoms of collapse in the patient. She became restless, and tossed her arms about; the pulse was almost imperceptible, sometimes completely lost, the respirations slow and sighing, and her countenance sunken and livid. The interrupted current was at once applied, she was wrapped up in blankets, and stimulants were administered both by mouth and rectum. At the end of an hour she was considerably improved, and was put comfortably into bed and covered with blankets before a large fire. For half an hour she seemed to go on very fairly: the pulse had improved, and a brandy and beef-tea enema was being administered, when without warning she suddenly expired at three o'clock, about an hour and a half after operation. I saw her a few minutes after death, and, lest I should not get another opportunity of examining the abdomen, I took out the stitches and found the pelvis as I had left it. Loss of blood had no part in producing death: was it ether or shock? The patient took a considerable quantity of ether, but the signs of death were those of shock, and I believe it was from this that the patient died. No post-mortem could be obtained.

If the operation of ablation of the entire uterus is ever justifiable, it was so in this case. The patient was only thirty-eight years of age, cachexia undeveloped, the disease recent and apparently confined to the uterus (although this was not really so). She seemed in good health, and we did not anticipate such an amount of fat as we found everywhere. The pulse and heart were normal, and her digestion was good. The patient was quite willing to run the risk, and she had been in hospital a sufficient time to prepare her system for operation. Her prospects otherwise were about as dark as they could possibly be. The cancer was recent, but developing rapidly; the pain great, and the hæmorrhage profuse. Again, we had two successful cases reported with pæans of rejoicing, and with anticipations of success for this operation equal to that of ovariotomy, as we have now the additional advantages secured by Lister's treatment. It will be seen, therefore, that, in removing the uterus of Susan P., I was not trying again the old methods, but had the aid of such improvements as warranted me in hoping for better results than formerly. The abdominal cavity was not exposed longer in my case than in one of Dr. Freund's; much less blood was lost than in one of his. The temperature of the room varied between 60° and 70° Fahr. (a rather low temperature, I believe), and yet the patient died from shock, as patients have so often done before when the uterus has been removed or the uterine neck cut. I confidently hope that we shall soon be able to remove the uterus as safely as the ovaries; and in order to bring about that result it is probably more necessary that the profession have before them the unsuccessful cases than the successful.

Liverpool.

CASE OF ANEURISM IN THE CHEST, WITH SPONTANEOUS CURE.

By E. L. HUSSEY, F.R.C.S. Eng.

Dyspnœa—Fluid in the Pleura—Puncture—Discharge of Blood—Death on the Fifth Day—Old Aneurismal Sac.

A COUNTRY gentleman, seventy-six years of age, of strong and muscular frame, and of gouty constitution, although suffering at times from difficulty of breathing under active exertion, had led an active life without having been known among his friends and neighbours as a sufferer under any chronic ailment or general illness. Early in life he had served in the Navy. Among other perils, he had been at the battle of Trafalgar, and at a later period he had been taken prisoner by a French ship.

At the end of November, 1866, during a morning's visit at his house for another purpose, Mr. Cresswell (now of Wolverhampton), who had attended him once or twice for ailments of a trifling character, observed in him, as he moved about the room, a difficulty of breathing which was not usual with him. Mr. Cresswell advised him to go to bed, and to remain in the recumbent position.

Upon examination next day, Mr. Cresswell found that there was not any respiration in the right lung. From this, combined with dulness over the whole of the side, he concluded that that part of the chest was filled with fluid.

The patient was afterwards seen by Sir William Gull, who was a friend of the family. He agreed in the view taken by Mr. Cresswell, and he advised that the fluid should be removed by tapping, if relief was not obtained after the administration of other remedies.

On December 3 I was summoned by telegraph for the purpose of performing the operation. At the time of my visit the patient was in bed. As he lay there at rest, I did not observe any remarkable difficulty of breathing, nor any urgent symptom requiring immediate relief. The right side of the chest was dull on percussion. He made no complaint, and he was able to converse freely. But I was not called for the purpose of diagnosis; I was required simply to perform the operation of tapping the chest.

For the convenience of operation, the patient moved from the bed, and walked without distress to a sofa in the room. After dividing the integument with a scalpel, I passed a trocar through the intercostal space below the sixth rib. Upon withdrawing the trocar, dark-coloured fluid—either pure blood, or serum strongly mixed with blood—flowed through the canula without impulse. After about an ounce and a half had escaped, I withdrew the canula, and passed the trocar again into the chest through the space above the sixth rib. Fluid of the same character flowed through the canula, rather more freely than from the opening first made. After about six ounces had been withdrawn, I removed the canula, with the concurrence of Mr. Cresswell, who assisted me at the operation. No perceptible alteration in the general state of the patient followed.

At night, after he had been moved back to bed, the difficulty of breathing returned. It increased in severity as the night advanced. Under strong stimulants administered by Mr. Cresswell, he revived towards morning. His recovery seemed to be complete, and it continued through the day. He was cheerful, and took nourishment of different kinds in large quantities.

The next night, the same urgent symptoms recurred, the dyspnœa coming on suddenly about the same hour, attended with profuse sweating and prostration so alarming that he seemed at the point of death. Mr. Cresswell administered between three and four ounces of spir. ætheris sulph. comp., giving it at intervals in teaspoons. Toward daylight he revived, and, improving by degrees, he remained free from uneasiness throughout the day, moving about in bed without help.

The two following nights were passed with similar suffering. The ether was increased in quantity, six ounces being taken in one night. The patient revived each morning, recovering suddenly about daylight. He passed the day without discomfort, but he became weaker in general power.

The next night (December 7) the dyspnœa was more severe; and he died about eight o'clock, sinking from exhaustion within an hour after the accession of the paroxysm. Permission was obtained to open the chest, on condition that it was done by Mr. Cresswell himself. A large amount of serum and blood had oozed from the wound in the chest. Mr. Cresswell estimated it at a pint in quantity. The right side was filled with fluid blood and serum. He removed the greater part, taking out four quarts by measure. The lung was collapsed, and the pleura partially adherent towards the spine. An aneurismal tumour, larger than a common hen's egg, was situated under the clavicle, where it was pressing upon the bronchus. He separated this from its connexions, and removed it. The left lung was gorged with blood, but there was no effusion into the cavity of the pleura or into the pericardium. The substance of the heart was pale; the cavities were empty, and the valves thickened. The aneurismal tumour is thus described by Dr. Tuckwell, who examined it before it was placed in the pathological collection in the Museum at Oxford:—"The coats of the artery are distinct. The inner coat is marked in many parts with small patches of atheroma, to which some calcareous deposit adheres. Masses of old fibrine cling firmly to the interior everywhere. This, examined under the microscope, resembles disorganised fibrine. There is not any opening of communication with the artery."

Remarks.—The aneurismal sac offers, I think, an example of one of those cases in which an aneurism has undergone a spontaneous cure, with obliteration of the opening of communication with the trunk of the artery from which it arose. The quantity of fluid blood found in the chest must have come from an opening into a bloodvessel. No amount of inflammation could have produced it. The aneurismal tumour had closed spontaneously. The blood must have had another source—probably an undiscovered aneurism. It is most likely that the hæmorrhage under which the patient's strength failed came at different times in the last few days of life, rather than by one sudden flow from the bursting of an aneurism or a rupture of some part of the arterial system. A remarkable feature in the case is the severe dyspnœa, recurring suddenly each night at the same period, with complete relief in the intervals during the day. For this it is difficult to suggest a satisfactory explanation. In part it may have been—as Dr. Tuckwell has suggested to me—from pressure of the aneurismal tumour on the recurrent laryngeal nerve.

Oxford.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

SEQUEL TO THE FOUR CASES OF AORTIC DISEASE REPORTED ON JANUARY 4.

(Under the care of Dr. SANSOM.)

Case 4.—Aortic Regurgitation and Obstruction.

After severe orthopnœa and increasing asthenia the patient George G. died on December 31.

Autopsy revealed atheromatous disease of the aortic valves, which were thickened and everted; dilatation and hypertrophy of left ventricle. Old hydatid of left lobe of liver, which suppurated. Lungs: Pleura firmly adherent to diaphragm; red hepatisation in lower lobes of right lung; extreme base converted into fibroid tissue; enlarged bronchus; pulmonary infarctions and œdema general through the rest of lungs. Heart: Left ventricle much dilated, its wall hypertrophied. Aortic valves incompetent (not holding water any appreciable time); much atheromatous change in the lower part of the aorta, which had extended to the aortic valves and thickened and everted them; the muscle of the left ventricle was in the condition known as fatty degeneration, having the characteristic yellow transverse marks; mitral valve and orifice were normal; the left auricle was moderately dilated; the right ventricle and auricle were also dilated in a moderate degree. Liver: This was puckered on the surface, and the capsule thickened by ramifying masses of fibroid tissue. A hydatid cyst was found in the left lobe, about three inches in diameter, adherent to the diaphragm, spleen, and stomach; it contained thickened and congealed pus, with many cysts of echinococci lying distinct from each other within the larger cyst. Spleen normal. Stomach similarly venously congested, with a quantity of adhesive mucus. Kidneys inflamed and venously congested.

Remarks by Dr. Sansom.—These four cases constitute a group, the salient feature of which is impairment of the structural integrity of the aortic valves, but if you are asked—"Are they, strictly speaking, examples of disease of the heart?" and you reply "Yes," you will be wrong. Note first the mode of onset. There is no history of the endocarditis which accompanies rheumatic fever. In three of the cases there is distinct evidence of alcoholic intemperance; in all of them the period of life is that in which degenerative diseases occur; in all the illness, beginning gradually, is characterised by the phenomena of "cardiac dyspnœa," associated with great and increasing general weakness. Then, as regards the heart, the physical signs locate the disease at the aortic orifice, and, for the most part, at the aortic orifice alone; this is a point of the highest importance in diagnosis. If any of these cases had been examples of rheumatic endocarditis it would have been in the highest degree probable that the mitral valve would have been also affected. We investigated this question closely. In Case 3 a loud systolic murmur was audible at the apex, but it was not conducted outside; and wherever the systolic murmur was heard, its companion diastolic murmur was heard also. We therefore concluded that both murmurs were generated at the aortic orifice. But you may say that a decided exception was found in Case 4. It is true that here we arrived at the opinion that there was regurgitation through the mitral orifice, as well as aortic obstruction and regurgitation. We noted, however, first, that the systolic murmur was variable in character; secondly, that it did not supplant the first sound, but rather followed the systole. So we concluded that much of the mitral valve curtains was competent at the time of systole; and from the history, and from the vastly greater involvement of the aortic valves, we arrived at the opinion that the mitral incompetence was secondary to the aortic mischief—that is, the regurgitation which occurred was due not to structural alteration of the valve, but to dilatation of the left ventricle; and this was proved to be correct. To that disease, then, is the imperfection of the aortic orifice in cases such as these due? The answer is—Not to a disease of the heart, not to an affection primarily involving the endocardium, but to a degenerative disease of the aorta (aortitis), or, to speak still more generally, to a disease of the arteries (arteritis). The crumpling of the semilunes of the aortic valves, with all the array of fatal troubles arising from such a disarrangement of the circulation, is an accident, not an essence of the disease. You will note the painful character of this disorder. Great pain and great distress occur in this form of disease. Some cases show the most severe forms of angina. Why is this? I have no doubt that it is because the erosion of the aortic tissues directly disturbs the nerves of the cardiac plexus. In the earlier steps of this affection, if the cases only present themselves at this period, much may be done in the way of treatment. In this group the days for therapeutics were past. The muscle of the heart had undergone degeneration; it might spurt for a while, but must, in the nature of things, soon fail. General tonics only are suitable in these cases. From my experience—though I express this only as an individual opinion, which I know many do not share—I have considered that digitalis only does harm.

ST. THOMAS'S HOSPITAL.

A CASE OF DIABETES MELLITUS TREATED WITH CODEIA—IMPROVEMENT.

(Under the care of Dr. ORD.)

Emma M., married, aged thirty-three years, was admitted on July 6, 1878, with well-marked symptoms of diabetes mellitus. The following are some notes of her case taken by Mr. Seymour Taylor, M.B.:—Her father died at the age of forty-two years, probably of alcoholic excess; her mother died aged forty-five years, of some liver disease. Patient

was the only child of their marriage. There seemed to have been no hereditary tendency to phthisis. Until five years ago patient had enjoyed perfect health. She then had an attack of measles, from which she perfectly recovered. She is the mother of two children, the younger of whom is ten years old. She noticed the beginning of her present illness four or five months ago, when she began to feel much weakness and languor. Three months ago she noticed great thirst, and her skin became dark and dry. She consulted a medical man, and by his directions her urine was measured, and she found she passed nine quarts in twenty-four hours. Shortly before this she noticed dimness of sight, which has gradually got worse, till on admission she was unable to read for more than ten minutes at a time without causing her eyes to ache. She was under medical treatment for about six weeks, during which time the quantity of urine passed daily remained about the same. Early in June she became an out-patient at this hospital under Dr. Payne, who strictly dieted her. Whilst under his treatment she passed less urine, and was only forced to get up three times at night, instead of five or six times as before. The thirst also was diminished, but she did not feel so strong. Catamenia remained regular; bowels were generally confined; and there was occasional smarting pain during micturition, but no abrasion of vulvæ. Her hair has become drier and fallen off since the commencement of her illness. Her memory also has failed.

On admission, she is emaciated, and limbs especially are wasted. There is no offensive or characteristic odour of breath. The skin is dry, but not harsh; there are no boils or carbuncles present; the hair is dry and crisp, but of natural colour. She complains of sinking pain at the pit of the stomach; sleeps fairly well at night; has no headache. Her sight is somewhat weak. The liver dulness is not increased, and other organs are fairly normal. She complains somewhat of a sweetish taste in her mouth; thirst is present, but is not excessive; her bowels are constipated. Weight 6 stones ½ lb.

July 8.—Specific gravity of urine 1043; 1600 grains of sugar passed in twenty-four hours.

12th.—Patient has about six pints of skimmed milk daily. She is also allowed two eggs.

16th.—Fish has been added to patient's diet. The amount of urine passed is from 120 to 220 ounces daily; specific gravity 1036 to 1040. Arsenic in small doses has been ordered. Constipation is troublesome.

30th.—Patient states that she feels better. She has to-day been ordered meat and green vegetables in addition to her previous milk diet. Her weight is now 6 stones 1¾ lb. She passes about 130 ounces of urine in twenty-four hours; specific gravity 1034.

August 30.—The same diet has been continued, and patient is, if anything, slightly improved. She has been taking opium since August 16—at first half a grain four times a day; now one grain twice a day.

September 17.—Patient does not look so well; she vomits her medicine soon after it is swallowed, and looks pale and emaciated beyond her usual condition. To-day a grain of codeia sulphate twice a day has been ordered. She has also been ordered to take beef-tea.

24th.—Patient looks much improved. Her weight is now 6 stones 8½ lbs. The amount of urine passed in the last twenty-four hours is ninety-nine ounces; specific gravity 1029.

27th.—The improvement continues, although the urine is still diabetic. Patient soon after this date left the hospital, the improvement after the treatment with codeia, as compared with the previous result, having been very marked both as regards her appearance and strength. No lung symptoms had, so far, complicated the case, dyspepsia and constipation being the chief troubles. The amount of urea passed daily was pretty constantly in excess, running from about 600 grains to 1000 grains.

ACUTE ECZEMA TREATED WITH JABORANDI.

(Under the care of Dr. ORD.)

Harriet T., aged fifty-three years, married, a cook, was admitted on September 14, 1878. She was a fairly nourished, well-developed woman. The skin of the face was scurfy and irritable. Many eczematous patches existed on both arms and legs. The right leg was almost entirely covered with an inflammatory patch, with numerous weeping spots, and studded with small yellowish points. Both ears also were affected. The itching of these parts was very troublesome. In other respects patient's condition presented no points of importance. Her previous history was that of a fairly healthy woman. About three years ago she had varicose ulcers on the left leg, soon followed by similar ulcers on the right leg. These were cured in about thirteen weeks, but broke out again in about two years. During the second attack she had eczema affecting both the lower extremities and the arms. She was then an inmate of this hospital, and was discharged cured in February last. About two months ago she began to feel an irritation about the legs. Five weeks ago there was weeping from the irritated surface, and she became an out-patient under Dr. Ord. Was finally admitted on above date.

Treatment.—As local application a lotion of linimentum calcis with albumen was at first employed. Subsequently, on October 4, an application consisting of tinct. catechu and glycerine, each three grains, and water to sixteen ounces, was used. On October 12, tinct. jaborandi, a drachm in water twice a day, was ordered to be given internally. The following are the notes of the subsequent progress of the case:—

October 8.—Legs are certainly better, but the irritation of the eruption on the arms is very great when patient becomes warm. She takes her food better than formerly.

14th.—Patient is a good deal improved in general health, and as regards the affection of the legs and arms. The posterior region of the scalp and the back of the neck are now affected with eczema.

18th.—Improvement continues. The dose of jaborandi has been reduced to half a drachm, given twice daily.

25th.—The legs are now quite dry; the left calf is somewhat tender.

November 15.—There has been a fresh attack, of an inflammatory character, of the right leg. The jaborandi has been discontinued for the present.

22nd.—The right leg is much better. Patient is at present taking an iron mixture.

December 10.—The jaborandi has been resumed to-day in half-drachm doses, given in three ounces of lime-water. The eczema of the back of neck and scalp does not seem to have been improving lately.

16th.—The legs are looking clean and do not weep, but the skin is a good deal discoloured. The neck and scalp are much better, and are quite free from discharge. Patient's general condition seems improved.

Remarks.—From observations of the effect of jaborandi in this case, and in other cases of acute eczema, Dr. Ord believes it to be a drug of real value in that disease. It probably produces a hyperæmia of the skin which is favourable to the rapid removal of effete matters, and to an improved nutrition of parts. Very little good has been done in this country with jaborandi as a curative agent, and it will be interesting to know from further experience if it can be relied upon as useful in the treatment of this class of skin affections.

MORPHIA IN LABOUR PAINS.—Dr. Ernoul, of St. Malo, observes that hypodermic injections of morphia act most efficaciously in the relief of even the most violent after-pains; and they also diminish the pains of labour when these are excessive, and especially when produced in primiparæ by prolonged distension of the perineum. To relieve these it is only necessaryto inject into the perineum one centigramme of the hydrochlorate of morphia. The uterine contractions are not sensibly diminished, but only less painful. These injections, however, should not be used in women predisposed to hæmorrhage.—*Bull. de Thérap.*, December 15.

ACTION OF SUBSTANCES ON THE TEETH.—As the result of numerous trials made by the exposure of recently extracted teeth to the action of various substances, M. Maurel comes to the conclusion that if various medicinal substances are dangerous in their action on the teeth, others in still larger numbers prove, in their habitual employment, quite inoffensive. Thus, if we are required to take great precautions respecting citric acid, tannin, chlorides of zinc and antimony, perchloride of iron, iodine, sulphate of copper, and alum, we may continue to employ with complete safety arsenious and carbolic acids, vinegar, corrosive sublimate, chlorate of potash, alcohol, tincture of benzoin, essence of mint, tincture of quinine, and eau de cologne. Tobacco, whether used in chewing or smoking, does not injure the teeth beyond causing their discoloration.—*Jour. de Thérap.*

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Medical Times and Gazette.

SATURDAY, JANUARY 11, 1879.

THE PROMISED MEDICAL BILL.

The Government have as good as pledged themselves to bring in a new Medical Bill during the approaching session; and the "hope to pass it" which was expressed by the Vice-President of the Council on December 17 may certainly be realised if Parliament will only take a common-sense view of the matter. As we contended all along last session, fresh medical legislation must be undertaken for the public good, and not for the convenience or advantage of any professional body or of any corporate interest, however sacred. The Government will have their hands full of home politics during the next six months; but especially careful as they claim to be of the public health, they will acknowledge the urgent necessity that exists that the minimum qualification of practitioners of medicine should be ascertained and recognised as sufficient. As to the best means of attaining this end, opinions may differ considerably; and we may have somewhat to say on this subject shortly. There, however, is no reason at present to suppose that the Duke of Richmond, in the promised measure, will do other than start from the point which he had reached towards the end of last session, and will make the formation of Conjoint Boards in the three kingdoms a compulsory portion of the Bill.

Beyond this there lie but two really important points of reform to be secured, and these are—first, the registration of colonial and foreign degrees and qualifications; and, secondly, the rectification of the penal clauses. It is unnecessary for us to speak upon these points at this time, for they were fully discussed last year, and the proposed measures relating to them in the ill-fated Bill appeared to give general satisfaction, and might well be reintroduced in the same form.

We wish heartily that with these remarks we could dismiss our anticipations of the new Medical Bill, and congratulate ourselves on the near prospect of the completion of a reform which was begun more than twenty years ago, when the Medical Act (1858) recommended the co-operation of medical authorities. If this great work were accomplished we might be able to afford the time and trouble of looking at certain collateral questions, which, growing out of little more than sentiment, have been written and talked about, and been kept before the profession and Parliament by means of deputations and petitions, until they have come to assume an aspect of serious importance, and have positively been sufficient to obstruct all really useful reform. Foremost amongst these "fads" is what is called "direct representation," or, otherwise, the "reconstitution of the Medical Council." We do not believe that the feeling respecting direct representation, which has been incessantly reported as strong and general, exists to any very important extent among the independent portion of the profession. The Medical Council have, however, been persuaded to "sit upon" their own existence; and we are informed, on the best authority, that the Executive Committee has collected a very large body of evidence for and against the present constitution of the Council. We expect every day to hear that the Report of the Executive Committee upon this subject has been published; and a meeting of the whole Council may therefore be looked for very soon—say, early in February. The Government have said that "further inquiry is necessary in respect to the constitution of the Council before any legislation could be attempted"; and the result of the inquiry by the Council itself, which has, of course, been made with every means of information ready at command, should not be withheld from the Government or from the country one moment after it can be published. We therefore look forward with interest to the beginning of February as a time when this subject, which has so long retarded all medical reform, may be fully discussed and, happily, dismissed by the Council, and the ground cleared for really useful legislation.

THE ALCOHOL QUESTION.

Since we last noticed the conglomerate of opinions on the Alcohol Question in the *Contemporary Review*, nine other articles have appeared on the subject in that journal—four in the December number, and five in the number for this present month; and as we commented on the former papers, we propose to say somewhat on these later ones also.

The first paper in the December number is from, not by, Sir William Gull, and we must say that we regret its appearance.

It is neither an essay nor a composition, but a compound; and we should not comment upon it at all had it not been adopted by Sir William Gull. The character of it, as to style, may be guessed from the introductory note by which it is headed:—

"*To the Editor of the 'Contemporary Review.'*

"Sir,—In reply to your request that I should write a paper for your Review on the use of alcohol, I have to say that I think my opinions have been fully expressed in my evidence upon the subject, given before the Select Committee of the House of Lords. I adhere to those opinions, of which my friend Dr. Bucknill has made the following *précis*, representing them correctly. "I am, etc., "William W. Gull."

The *précis* thus furnished consists, we imagine, of the answers given to various questions, and, as the questions do not appear, the paper has in parts a strangely disjointed and crude character, and is here and there open to grave criticism. And had not Sir William Gull stated the contrary, we should not accept it as correctly representing his opinions. But as it is, we cannot pass it by without protest, or without expressing a regret that, if Sir William

Gull thought fit to accede at all to the Editor's request, he did not condescend to "write a paper." The *précis* begins with what, if it means anything, appears to be a grave charge against the late Dr. Todd. Forty years, ago Sir William says, the amount of alcohol used in medical practice was moderate. Then came a "change, due," he thinks, "to the King's College School, headed by Dr. Todd, which was based on the theory that cases of acute disease were almost universally weak and anti-phlogistic, and therefore to be treated with brandy." For the past twenty years, however, there has again been a great change, and, says Sir William, "we believe now that diseases run for the most part a physiological course, and that alcohol has but a subordinate value, which is chiefly due to its action on the nervous system as a sedative. Under this view many diseases are now allowed to run their course without alcohol; but if we find a patient very delirious or exhausted we give him alcohol, not, as formerly, with a view of *curing* (the italics are our own) the disease, but with that of calming the nervous system during the course of the disease." Does Sir William Gull really mean to say that Dr. Todd taught that disease could be cured with alcohol? or that he did not know and teach that diseases "run a physiological course"? If we turn to that great physician's "Clinical Lectures on Certain Acute Diseases," published in 1860, we find him expressly stating that "disease is cured by natural processes, to promote which, in their full vigour, vital power must be upheld. Remedies, whether in the shape of drugs which exercise a special physiological influence on the system, or in whatever form, are useful only so far as they may excite, assist, or promote these natural curative processes"; and that it should be the aim of the physician to inquire minutely into the intimate nature of these curative processes—into "their physiology, so to speak"—to discover the best means of assisting them, and to ascertain the best and most convenient methods of upholding vital power. Dr. Todd was eminently a "physiological physician," and did not believe that he could *cure* fever, or other acute disease, with alcohol or any other remedy. But Sir William Gull, though he says, speaking of the treatment of fevers, "I think the error is still prevalent that alcohol cures the disease, whereas the disease runs its physiological course," says also, "I have cured many cases of typhus in young subjects under twenty-five with camomile tea and light diet"! It may be said that the use of the word "cure" there is a slip, an oversight. But can such an excuse be admitted in the circumstances? The paper is not a new one, written under pressure; but a *précis* of a former utterance, adopted and expressly endorsed, for the instruction of the public at large, by the master-teacher, who is blaming others for believing that they "cured" disease. Such strange sayings as those quoted—and the paper contains many more as curious—might be allowed to pass unnoticed, as being due to the crude form in which the matter appears. But Sir William Gull himself sent the *précis* to the *Review* as correctly representing his opinions, and we cannot but think that he thereby committed a grave error. It does not appear to us that much is to be learned from what Sir William tells us with regard to the constant or daily use of alcohol. He says, indeed, "I think there are conditions of the system, under fatigue and exhaustion, where it might be useful, where the nervous system might be deadened, if I might say so, or that alteration made in it which was requisite." But though the use of alcohol in moderation may be beneficial, he very much doubts "whether there are not some kinds of food which might very well take its place"; and he adds, "If I am myself fatigued with overwork, I eat raisins instead of taking wine"—a remedy more sublimely simple even than Dr. Bernays' "favourite and perfect remedy, five or six brandied cherries." But he allows that, in some cases, wine is useful—"a little wine, and with strict limit"—as a medicine for temporary use. He would permit it also in old age, and quotes with approval a sentence from "one of the Greek poets"—one Panyasis—to the effect that wine is as useful as fire to the dwellers upon earth. And he is not sure that he would not advise an out-of-door man, doing a good deal of work, to take some beer, "as a good form of food"; though he adds, "but a very small piece of beefsteak would make up the materials. And if the man had a good digestion he could do without his beer." We have no doubt he *could*, though we are not sure that he could do quite as well. And how is he to get always, or often, the bit of beefsteak? In this part, as in the rest of the paper, on the subject of restraint, Sir William's opinions are given with so many qualifications, and so much hedging, that we do not see that anything practical can be got out of them—certainly nothing much more than that alcohol may be a power for good or for evil, according to how it is used; that it may be a good servant, but must be a bad master.

Dr. Murchison writes on "the utility of alcohol in health and in disease." His opinions are pretty well known, and are rather extreme. He thinks that the healthy man who wishes to live long, and to continue enjoying good health, ought to abstain from the *habitual* use of alcohol; though he admits that "a glass or two of wine, or some of Dr. Bernays' favourite 'brandied cherries,' taken *occasionally*, may do him no harm," and may at times be of service; and he holds that "in all conditions of the system characterised by weakness of the circulation, the daily use of a small quantity of alcohol is likely to be beneficial, at all events for a time."

Dr. Moxon's disquisition on "Alcohol and Individuality; or, Why did he become a Drunkard?" is very original and clever. It is full of bits of keen observation, shrewd remark, and picturesque writing, and it is discursive; but has it any practical outcome? He sets himself to examine the power that the use of alcohol "may have over those factors of difference between Queen's Counsel and potmen, which distinguish men from men, thus going outside the range of physiology to enter the region of truly humane interest and import." We cannot afford space for even a sketch of the way in which Dr. Moxon works out the task he set himself, and indeed, we doubt much whether any analysis of it—could we present one—would be understood. But the pith of it is that every individual exists in two distinct phases, one of these being the man as the seat or subject of the set of feelings that make up conscious life—the man feeling, seeing, enjoying, suffering; and this he calls *individual sense*: and the other, the man as the seat, or subject, or object of what other people make him know or feel—the man as a unit under influences dominating his spontaneous powers; and this he terms *common sense*. Individual sense and common sense compete for powers over the memory, and acts of memory arising from either throw the mind under the one or the other; so that some minds are very much subject to the one or the other. Individual sense is a reality within the man; common sense is an inter-reality realised between men, not in any man. A strong man has both senses, largely, and in well-balanced proportion. Little of the first with much of the second makes good dull boys, and, we suppose, good working, steady, but dull men; Dr. Moxon says it makes good mathematicians. Dolts have little of either sense. Those born with strong individual sense, and but little capacity for common sense, are "the born intemperate," though their "intemperance may take a good direction for which all men bless them and call them good geniuses"; or it may take the direction of self-indulgence, and, if they are to be saved, the danger of this must be recognised early. Now, the power of alcohol, Dr.

Moxon says, lies in this—that it "weakens common sense in its opposition to individuality." That is its blessing to the many it blesses, and its curse to the many it curses. "It keeps down the oppressive power of others, and of their common sense, over the individual sense; and so makes a man better company to himself and others. It places a man's individually-stored mind within his own power; raising his individuality temporarily but with danger. Makes the coward sham brave, makes the dull a little lively." And upon those whose individual is much greater than their common sense, "alcohol acts as a poison of the soul." They become wrapped up more and more in the pleasures of individual senses; and they became sots. Now, supposing that all this, or much of it, is true, what help is given us as regards the finding out or the ruling who may or may not take alcohol? Who shall differentiate human beings early enough to guide them in this respect? Has Dr. Moxon's hypothesis any practical side? Can anyone draw a practicable outcome from it?

Dr. Moxon has no belief, apparently, that the drunkard or sot can ever be saved; and this leads him, we regret to observe, into writing sometimes of the sot and of the teetotal movement—though he gives all honour to teetotalers for their motive and self-denial—in terms that must prove needlessly irritating, to use a mild term. Thus in one place he says:—"Teetotalising A, the good man, to save B, the sot, is throwing good after bad. The sot is not worth it." He may be deserving of pity—all crime has its pitiful side. But as to saving him! Go to the post-mortem house, and learn there how impossible that is.

Dr. Wilks' contribution is a moderate and well-written paper on "The Action and Uses of Alcoholic Drinks." He admits that the utility of alcohol must be judged of by the practical results of experience; that we have not yet discovered what ultimately becomes of it in the system; that in moderate doses it may do either harm or good; and that we all usually answer the question, whether or not alcoholic drinks are useful adjuncts to our ordinary diet, by an appeal to the state of our feelings. But, he says, how far should our feelings be our guide? He answers this by stating that alcohol is falsely believed to be a stimulant, and as such, people resort to it when they feel low or weak; whereas, in truth, it is a sedative, or, at least, its stimulant effects may be regarded as *nil* compared with those which may be styled its sedative or paralysing ones. If this were properly comprehended, the misuse of alcohol would, he thinks, largely disappear, as people would cease to regard it as strengthening, or as a necessary article of diet. "Only let it be understood," he says, "that children should be brought up without the use of fermented drinks, and that these need not of necessity be taken by adults, but that their use and amount should be regulated by circumstances, and the great curse of our country would be far on its course towards removal." We wish we could share in Dr. Wilks' belief. But call alcohol what you will, people will take it, we suspect, so long as they get, or think they can get, from it what they want or think they want. And, if Dr. Wilks is right in declaring that "the universal cry of the children of men has ever been that of the lotus-eaters—

'There is no joy but calm,'"

and that mankind are ever seeking something to soothe them, why will they resort less to alcohol because they are told that it is a sedative? Dr. Wilks is, however, very moderate in his judgments, and in his demands; and we have the pleasure of being able to agree with his practice of denouncing the use of alcohol in women who feel "low," and of strongly prohibiting its use in early morning.

We have left ourselves very little space for noticing the articles in the January number of the *Contemporary Review*; but, in fact, very little need be said about them. Dr. Risdon Bennett leads off with a good article in favour of temperance *versus* abstinence. He regards alcohol as having both a stimulating and a sedative action; and he puts clearly and well what has been advanced by others also as to its value dietetically and medically, though touching but slightly on the latter. The views he takes—the views drawn from experience and everyday observation—are well supported by Dr. C. B. Radcliffe, Dr. Brudenell Carter, and Dr. Garrod. Dr. Radcliffe's contribution is "a simple report of a conversation with a clerical patient," and, though it contains much instruction and good sense, we will hope that very few of his patients make such demands on his time as that one did, seeing that the "casual conversation" fills six pages of the *Review*. The substance of Mr. Carter's article on "The Place and Uses of Alcohol as an Article of Diet" appeared a year ago in a medical journal, and is well known to the profession. It gives his own personal experience of the use and value of alcohol as an article of diet, shows that he possesses plenty of both "individual sense" and "common sense," and is written with all his usual happy command of language. After his first article appeared, "total abstainers, writing in other publications," he tells us, "were induced to assail me with such rhetorical weapons as they could command." We have no doubt that many of the writers in the *Contemporary Review* will have a similar experience. We hope they will be able to treat it as did Mr. Carter, who adds—"Fortunately for my safety, there was more smoke than impact, more powder than ball; and the appearance of many pages covered with printed characters furnished me with nothing to refute." And the abstainers will think similarly, though they may not be able to clothe their thoughts so well. Neither side will be one whit convinced by the other.

Dr. Garrod writes on the "Results of Experience in the Use of Alcohol," and sums up thus:—"Most people can partake moderately of alcohol without prejudice to their health; many with benefit. Few can take much without at least ultimate injury. As a beverage alcohol should be drunk freely diluted. Different combinations of alcohol should be selected by different constitutions."

As one of the five papers in the last number of the *Review* is by a homœopath, we will hope that the Editor has come to the end of his contributions on the Alcohol Question from members of the medical profession, for we fail to see the practical use of such a collection as that which has already appeared. Certainly each writer has given, with more or less force and dexterity, the facts, true or false, from his own point of view, and the views thus set forth may have in themselves great value. But the same views are in reality repeated over and over again. There is nothing new in them to guide or help mankind practically in the matter written on. And in our opinion the first essay—that by Sir James Paget—summed up the whole question at issue; and we venture to think that it will stand as a good example of the best English of our century, founded on a principle of reasoning which, if rightly used, cannot be at fault. We will only add, for the benefit of those who would make us all by force teetotalers, a sentence or two from Dr. Wilks' article:—"In judging of the use of alcohol by the community at large we must be guided in the same way as we are by other habits of mankind. We see persons enjoying themselves in various ways, eating and drinking all kinds of food and beverages, occupying themselves with amusements of every description, and yet none of these would be allowed in Utopia. They get through the world, although indulging in certain habits, and declare themselves well. Where, then, is the appeal against their procedure?"

THE WEEK.

TOPICS OF THE DAY.

The Registrar-General's return of births and deaths for the concluding week of the past year gives as a result 4526 births and 4962 deaths, the mortality being at the average rate of 31 deaths annually in every 1000 persons living. The annual death-rate was 24 per 1000 in Edinburgh, 36 in Glasgow, and 39 in Dublin. The annual rates of mortality per 1000 last week in twenty English towns were returned as follows:—Portsmouth, 17; Brighton, 24; Plymouth, 24; Nottingham, 25; Sheffield, 27; Sunderland, 27; London, 28; Leicester, 29; Wolverhampton, 30; Bradford, 30; Hull, 31; Oldham, 31; Birmingham, 33; Leeds, 34; Newcastle-on-Tyne, 35; Bristol, 37; Liverpool, 37; Norwich, 41; Manchester, 42; Salford, 44. From these figures it will be seen, if we take into account the great inclemency of the weather, and the consequently great mortality among old people, that the prevailing and long-continued depression of trade has, at least up to the present time, had no marked influence upon the death-rate of the country. The annual death-rate from the seven principal zymotic diseases averaged 3·6 per 1000 in the twenty towns. Scarlet fever was especially fatal in Sunderland, Oldham, Salford, and Newcastle-upon-Tyne. Small-pox caused 13 deaths in London, 19 in Dublin (raising the number recorded during the year to 550), but not one in any of the other large provincial towns. In London, during the week under notice, 1762 births and 1900 deaths were registered, which, allowing for increase of population, showed the births to be 433 below, and the deaths 85 above, the average numbers in the corresponding week of the last ten years. During the fifty-two weeks of 1878, 83,695 deaths were registered in London, of which number 14,732, or 18 per cent., were referred to the seven principal zymotic diseases; the death-rate from all causes was equal to 23·5, and from the seven principal zymotic diseases to 4·1 per 1000 of the population, against 21·9 and 3·5 respectively, in 1877. The duration of bright sunshine, registered at the Royal Observatory, Greenwich, during the week referred to was 3·6 hours, the sun being above the horizon for a period of 54·2 hours; the recorded duration of sunshine was, therefore, equal to 7 per cent. of its possible duration. The atmosphere contained scarcely any ozone throughout the week.

At a recent meeting of the Stoke-on-Trent Board of Guardians, charges were brought forward against the Medical Officer for Longton, to the effect that for six weeks he had left his pauper patients entirely to the care of his dispenser, who had no medical qualification. During this period one of the patients, it was stated, had died. The Board, after considering the matter, determined to suspend the Medical Officer, and further to request the Local Government Board to institute an inquiry into his conduct.

New sewage works have just been commenced at Croydon by the Rural Sanitary Authority of the Croydon Union, having for their object an improved system of drainage for the Mitcham, Merton, Morden, Wallington, and Beddington districts. This undertaking will necessitate the construction of thirty-six miles of sewers, and the outfall works will be erected at Bygrove Mead, partly in the parish of Mitcham, and partly in Wimbledon, on land purchased for the purpose at a cost of £11,300. Mr. Baldwin Latham has been appointed engineer to the works, and the total outlay is estimated at £90,000.

A conference of the representatives of Friendly Societies was held last week at Manchester, for the purpose of considering Mr. Mellor's Bill for the amendment of the twenty-third clause of the Poor Law Amendment Act. The delegates present represented a million and a half of members of friendly societies, and it was unanimously resolved to recommend the different societies to use their best efforts to secure the passing of the Bill, and to promote a joint deputation to the Chancellor of the Exchequer, asking the Government to support the measure.

An important case was lately heard before the Whitchurch magistrates, with somewhat unsatisfactory results as far as the public is concerned. A local banker was summoned by the Rural Sanitary Authority for keeping open a well which supplied five of his cottages with water totally unfit for drinking purposes. Dr. Thursfield, Medical Officer of Health for the district, had reported the water impure, but a Birmingham firm of analysts, acting for the defendant, expressed a totally opposite opinion. Accordingly the Bench, in November last, ordered an analysis to be made at Somerset House, with the result that the water was stated to be too impure to be safely used for drinking purposes. The magistrates therefore ordered that the well should not be used until it had been rendered free from sewage, or an alternative supply provided. An application was then made that the defendant be charged with the costs of the Government analysis, but this the Bench, according to Section 70 of the Public Health Act, had no power to order. Dr. Thursfield remarked that this decision would cause serious impediment to the action of the Sanitary Authorities in cases of contaminated water-supply, as in each instance it would only be necessary for the defendant to take exception to the analysis produced by the Authority, in order to obtain another at Somerset House, which it now appeared would have to be paid for by the respective Sanitary Authorities.

Pending the publication of the full particulars which led to the Local Government Board calling upon Mr. George Fenton, one of the Medical Officers of St. George's, Hanover-square, to resign his appointment, we refrain from any decided comments. Our first impression certainly is that Mr. Fenton has been very badly used. It will be remembered that some considerable time ago a disagreement arose between Mr. Fenton and the parish authorities in consequence of the relieving officer's taking upon himself to set aside the orders of the former for stimulants for some of the sick poor; and at an inquest held upon the body of Charlotte Hammond, the patient over whom the difficulty arose, the coroner and jury found that Mr. Fenton had acted humanely, consistently, and justly in the matter, that the relieving officer was deserving of grave censure, and that such censure applied to the Board of Guardians. The Guardians at once applied to the Local Government Board, soliciting an inquiry into the case, and Mr. Hedley, aided by counsel, was deputed to undertake the matter; the result, as we are informed, being that the Board have censured Mr. Fenton for giving the stimulants to the dying woman, and for persisting in ordering such nourishments after the relieving officer had recommended the Guardians not to give them, and, as before said, have called upon Mr. Fenton to resign his appointment.

The magistrates of Essex have at the present time under their charge 994 lunatics, showing an increase of 58 as compared with twelve months ago. This number—comprising 435 males and 559 females—cannot be accommodated at the County Asylum at Brentwood, consequently 48 are placed in a temporary home at Mistley, near Harwich, and 142 are maintained, at great expense, at asylums in other counties. It has been resolved, therefore, to lease for a short term of years a house and grounds known as Leigh Hall, Leighton, as a second temporary home for fifty male patients, which will afterwards be available as a permanent asylum.

At last week's meeting of the Metropolitan Board of Works, a letter was read from the Plumstead District

Board, inquiring what steps the Board proposed to take in order to prevent the pollution of the river Thames by the sewage at present emptied into it, and urging the necessity of adopting some system of deodorising the sewage, and of utilising it in the culture of waste lands. A further communication from the same Vestry also requested information with regard to certain statements made by the Metropolitan Board on the subject of carrying the metropolitan sewage to the Maplin Sands, requesting to know when the suggested scheme of utilisation and reclamation would be carried out. It was resolved that these communications should simply be acknowledged.

Official intelligence from St. Petersburg confirms the statement that the plague has broken out in Astrachan. It is said to have been introduced by Cossacks who have returned from Turkey, and in consequence of the thaw which has set in, the epidemic, which was abating, has appeared again with great virulence. The authorities of the Government of Saratow have taken the most stringent measures to prevent its spreading. An extraordinary conference of the chiefs of the Medical Department and other branches of the administration has been held to decide upon the proper steps to be taken for stamping out the disease.

Although much has not been lately heard of the Home Hospitals Association, we believe that a suitable house has actually been secured in an extremely convenient and central situation at the West-end for the first of these institutions, and rumour has it that it will be opened early in the present year. Like all novelties, it will require to be widely known to insure an ultimate success for the undertaking; but we think the class for whom these home hospitals are specially intended will much prefer an establishment of this kind to the paying-patient scheme of certain of the St. Thomas's Hospital authorities.

THE PATHOLOGICAL SOCIETY.

THE annual meeting of the Pathological Society for the election of officers and members of Council for the current year was held on the evening of Tuesday, January 7. During the earlier part of the evening some interesting communications were brought forward (our report of which must stand over to next week), and a committee was appointed to investigate the nature of Garget, a disease affecting the udders of milch-cows, and the relations of the milk of the animals so diseased to diphtheria and other zymotics in man. Thereafter the annual report of the Council was presented, in which the Society was congratulated on its continued prosperity, financially and otherwise. It was mentioned that the sale of the Society's *Transactions* had been a source of larger revenue during the preceding year than on any previous occasion. The volume of *Transactions* just issued the Society believed to be quite equal in value to its predecessors, the number and beauty of the illustrations being specially noted. The Council have resolved that the list of honorary members shall be limited to eighteen. In mentioning the losses of members and honorary members by death during the year just concluded, the report made special reference to Rokitansky and to John Hilton, a former president. The Council have resolved to continue the practice of devoting certain evenings to the exhibition and discussion of specimens illustrating a special subject, and it was announced that the next such special subject would be that of Lardaceous Disease, in reference to its anatomical sites and pathological relations. The discussion will be opened by Dr. Dickinson in March of the present session. The report also referred to the continuation of the labours of the Committee on Pyæmia and allied conditions. On the motion of Dr. Tilbury Fox, the report was unanimously adopted and ordered to be published. The following gentlemen were then elected for the current year:—*President*: *Jonathan Hutchinson. *Vice-Presidents*: George Harley, M.D., F.R.S.; *Charles Murchison, M.D., LL.D., F.R.S.; *James Edward Pollock, M.D.; Hermann Weber, M.D.; Thomas Bryant; *Christopher Heath; Thomas William Nunn; *Septimus William Sibley. *Treasurer*: John Whitaker Hulke, F.R.S. *Honorary Secretaries*: R. Douglas Powell, M.D.; W. Morrant Baker. *Council*: *Thomas Barlow, M.D.; Sidney Coupland, M.D.; *Tilbury Fox, M.D.; William Richard Gowers, M.D.; T. Henry Green, M.D.; William Smith Greenfield, M.D.; *James Pearson Irvine, M.D.; Charles Henry Ralfe, M.D.; *Frederick Taylor, M.D.; John Williams, M.D.; Rickman John Godlee; *John Warrington Haward; Henry Greenway Howse; Jeremiah McCarthy; William Mac Cormac; *William Bedford Kesteven, M.D.; Henry Morris; Arthur Treherne Norton; *William Johnson Smith; and William Warwick Wagstaffe. (The gentlemen whose names are marked with an asterisk [*] were not on the Council or did not hold the same office during the preceding year.) Dr. Hare moved for a vote of thanks, which was unanimously and heartily accorded, to Dr. Murchison, the retiring President, for his eminent services to the Society during his tenure of office. Dr. Murchison briefly replied, remarking that he would always continue to take an interest in the work of the Society, and that it was both a satisfaction and an honour to be succeeded by such a President as Mr. Jonathan Hutchinson, whom he remembered as formerly one of the most frequent contributors to the Society's proceedings, and who was now one of the greatest surgical pathologists in this or any country.

EDINBURGH ROYAL INFIRMARY.

AT the annual meeting of contributors held on Monday last, the report of this institution was submitted by the managers. The time reported upon extends from October 1, 1877, to October 1, 1878; and the report shows that between these two dates 5575 patients had been under treatment in the Infirmary—a number considerably above that of the previous year. The average daily number under treatment was 460; and the average number of days during which patients remained under treatment was 30·1. The percentage of deaths to the whole cases treated was 8·0; but were those cases deducted in which death occurred within forty-eight hours of admission, the percentage would be reduced to 6·2. Of the cases treated to a termination during the past year, 2722 had been admitted from Edinburgh, 404 from Leith, and 2054 from the country. This record of admissions is gratifying, as showing how much the Edinburgh Infirmary continues to maintain its character as a national institution, the doors of which are open to all who have the qualification of physical suffering. The patients remaining in the hospital on October 1, 1878, numbered 395. Outdoor patients to the number of between 10,000 and 12,000 have also been attended to by the medical and surgical staff. The ordinary expenditure of the Infirmary for the year under consideration exceeded that of the previous year by £1594 13s. 2d. The managers contend that this difference is accounted for by the larger number of patients who have been under treatment, as shown by the higher average of residents and the shorter period of treatment—a change which, though it has raised the cost *per bed* from £52 6s. 9½d. to £54 12s. 7½d., has reduced the cost *per patient* from £4 15s. 4d. to £4 10s. 1d. The managers justly deplore the fact that the ordinary revenue falls so much short of the ordinary expenditure and regret the consequent circumstance that for the maintenance of the Infirmary in its full function they are obliged to draw largely upon the legacies so much needed for the completion of the New Infirmary. The Convalescent Home

is also reported to have done excellent work during the year. In the Royal Infirmary the cost and quantities of leading commodities for each occupied bed have somewhat increased during the past year. This increase we observe applies quite as markedly to stimulants as to any other commodity, so that we may safely assume that the medical and surgical staff of the Edinburgh Royal Infirmary, whom we may take as fairly representing the professional opinion of Edinburgh, have not been influenced by recent discussions to the less frequent employment of stimulants. The managers state that £81,569 10s. 9d. will still be needed for the completion of the New Infirmary, exclusive of small-pox, erysipelas, and lock hospitals, and of grates and furniture. It is hoped that the building will be completed in the summer of 1879.

HARVEIAN SOCIETY.

THE annual meeting of this Society was held in the Stafford Rooms on the evening of Thursday, January 2. The treasurer's report showed that the finances of this growing Society were most satisfactory. Eight new members were elected during the year. Only one member was missing from the last year's list—the late T. Carr Jackson, who had to retire from the post of President in consequence of disease which soon proved fatal. The rooms were handsomely decorated by paintings and etchings lent by Dr. Farquharson, Mr. George Field, Mr. Henry Sewill, Mr. Edmund Owen, Mr. Ernest Hart, and many others; while Mr. Seymour Haden, with his wonted courtesy, sent a number of his own exquisite etchings. Messrs. Krohne and Sesemann exhibited a number of surgical and other instruments; while Messrs. Collins showed a number of microscopes of different forms, with some very beautiful microscopical subjects lent by members—one, a section of the ovary of a cat, lent by Dr. Wiltshire, was an exquisite preparation in every way. The retiring President, Dr. Graily Hewitt, delivered an address in which, after referring to the affairs of the Society, he chiefly discussed chronic partial starvation, as seen in the subjects of uterine disease with consequent anorexia and nausea. He insisted strongly that a long process of such chronic starvation required a long course of systematic treatment and suitable diet before the normal condition of the organism was regained. There was a large attendance in spite of the inclement weather. The following is the list of office-bearers for the coming year, 1879-80:—*President*: Henry Chas. Stewart, Esq. *Vice-Presidents*: John Easton, M.D.; E. Symes Thompson, M.D.; George Eastes, M.B.; Robert Farquharson, M.D. *Treasurer*: Henry Power, Esq. *Hon. Secretaries*: J. Milner Fothergill, M.D.; George P. Field, Esq. *Council*: W. M. Graily Hewitt, M.D.; Stamford Felce, Esq.; F. J. Gant, Esq.; Walter Cheadle, M.D.; Granville Bantock, M.D.; N. H. Stevens, Esq.; Alfred Wiltshire, M.D.; T. Fitzpatrick, M.D.; H. Sewill, Esq.; H. T. Mapleson, Esq.; Edward Owen, M.B.; T. Buzzard, M.D.

THE MEDICAL OFFICERSHIP OF HEALTH FOR DUBLIN CITY.

THE Local Government Board for Ireland has most properly refused to sanction an "arrangement," lately recommended by the Public Health Committee of the Corporation to the Municipal Council at large, whereby the offices of Superintendent Medical Officer of Health and of City Analyst should be amalgamated. At a meeting of the Public Health Committee, held on Friday, January 3, the following letter on the subject from the Local Government Board was read:—"Local Government Board, Dublin, January 2.—Sir,—The Local Government Board for Ireland have had before them the minutes of the Public Health Committee, Dublin, of November 29 and December 6, 1878, on the subject of the proposed retirement of Dr. Mapother from the office of Consulting Sanitary Officer and Medical Superintendent Officer of Health, to which he was appointed in pursuance of the orders under seal of October 21, 1874, and December 10, 1877, respectively. It is proposed, it appears, to grant Dr. Mapother a superannuation allowance of £120, and to elect Dr. Cameron, who was appointed Medical Officer of Health under the former order, to both the offices in question, at a salary of £400. It is supposed, according to Dr. Mapother, that a superannuation allowance could be granted in pursuance of Section 275 of the Public Health Act, 1878; but this, in the opinion of the Local Government Board, is an erroneous conclusion. Compensation can only be granted under that Section in case of removal from or deprivation of office by the operation of the Act, or by any provisional order made under it; and as no such contingency has arisen in this case, the proposed charge upon the Corporation funds could not be properly made. It will be seen that the orders of October 21 and December 10, above referred to, require the appointment of two separate officers; and, as at present informed, the Local Government Board are not enabled to approve the proposed amalgamation of offices, nor, consequently, to rescind the orders.—By order of the Board, W. D. WODSWORTH, Assistant-Secretary.—To the Secretary, Public Health Committee."

THE CHARGE OF NEGLECT AGAINST A DISPENSARY MEDICAL OFFICER IN IRELAND.

WE have already on more than one occasion mentioned the case of Dr. James B. Barry, Medical Officer of the Kilbeggan Dispensary District, Co. Westmeath. It now appears that after the Dispensary Committee had, in accordance with a request of the Local Government Board for Ireland, and as the result of a sworn investigation, resolved, by a small majority, to call on Dr. J. B. Barry to send in his resignation, a strong reaction in the Medical Officer's favour set in, and it was felt that the alleged neglect did not warrant the extreme course adopted. A numerously signed petition, with the signatures of seven members of the Dispensary Committee, was got up and forwarded to the Local Government Board, together with a full explanation from Dr. Barry. After consideration, that body has, to the satisfaction of the people amongst whom the doctor for eight years discharged his onerous duties, informed the Committee that they will not ask for his resignation, and called for the return of their previous minute, which has been forwarded by the Honorary Secretary. From the whole story, it is clear that either Dr. Barry is a hardly used man, or the Local Government Board has unfortunately adopted a vacillating and most mischievous policy in dealing with cases of alleged neglect on the part of dispensary medical officers.

THE NEW SCHOOL FOR IMBECILE CHILDREN AT DARENTH.

THE architects to the Metropolitan Asylums District have recently published a description of the school and asylum for imbeciles in course of erection at Darenth. The schools are completed and will shortly be opened, when the foundation-stone of the Metropolitan Asylums Board's third adult imbecile asylum (to be erected in the immediate vicinity) will be laid. The details given show that every care has been taken in the construction of the new buildings to insure comfort, discipline, and health. Mr. Fletcher Beach, the Medical Superintendent of the temporary Children's Asylum at Clapton, has appended to the architect's report a statement of the work done at Clapton during the past three years and a half; and the results achieved have been so universally satisfactory that it is confidently expected, when greater facilities are opened up by the new asylum, that even more striking improvements will be obtained. The training of the children comprises a physical, moral, intellectual, and

industrial education; and the difference between an untrained imbecile child and one who has received instruction, is shown to be that, whereas the former sits listless in a corner, seeing but not perceiving, and generally leading an animal existence, the latter takes an interest in the little world around him, and, as far as in him lies, does his best to make himself useful. In spite of occasional errors, there is no doubt that the Metropolitan Asylums District Board is doing thoroughly good work.

THE COLLEGE'S PRIMARY EXAMINATION.

On the evening of Wednesday, the 8th inst., a meeting of the teachers of anatomy and physiology throughout England was held in the Board-room of Charing-cross Hospital. At a former meeting a sub-committee had been appointed to draw up an address to the President, Vice-Presidents, and Council of the Royal College of Surgeons, praying them to take into account certain representations they had to make with regard to the primary examination, especially for the Membership, but also in a certain degree for the Fellowship. The document thus drawn up is, we believe, of the most courteous description, it being, above all, the desire of those concerned to avoid anything like dictation to the authorities of the College. Nor do we think that the thinnest-skinned member of that body can take exception to the proposals thus made, and worded as they are. Briefly, as we understand, they are these:—That separate examiners should be appointed in anatomy and physiology for the Membership, and that separate papers containing a larger number of questions from which to select should be set on these subjects; that for the Fellowship there should be separate examiners in comparative anatomy as well as in the above subjects, and that—as is the custom in the University of London—the extent of the knowledge required on comparative anatomy should be distinctly defined. Finally, the teachers invite the College authorities to receive a deputation from among their number to explain their views in greater detail.

THE SCOTTISH REGISTRAR-GENERAL'S WEEKLY RETURNS: HIGH MORTALITY.

In order to provide uniformity and to facilitate comparison of the Scottish with the English and Irish returns, the Registrar-General has altered the form in which he has published his tables since 1876. The principal modification is the quotation of figures showing the density of the population, and the diseases from which the mortality has arisen. The Registrar-General states that he "would have been glad to shape his returns even more strictly in conformity with those issued in England and in Ireland, but there are various circumstances which for the present must prohibit closer assimilation. The different machinery or agencies through which the record of deaths is made up in the three countries; the differences in the laws of each affecting the registration of marriages; the absence of coroners' inquests in Scotland; and the circumstance that its largest city is not its metropolis—are some of the principal obstacles to uniformity in shaping the national statistics. In all returns issued from the Department, and referring to dates subsequent to December 31, 1878, the medical nomenclature introduced by the Registrar-General for England will be used. It is unquestionably for the public advantage that identical terms should be observed in classifying the causes of death in the three kingdoms; and, although difference of opinion may exist as to the sufficiency or philosophic accuracy of the English (or indeed of any other) medical nomenclature, such considerations should not interfere with the acceptance, in this comparatively small country, of the system according to which the deaths occurring in the large population of England have now for many years been tabulated." The births which occurred last week were fifty-one and the marriages 214, under the number recorded during the corresponding week of last year. In some of the eight largest towns the mortality of the past week was very high. Thus in Perth, where the density is only about six inhabitants to the acre, the death-rate was 60·5 per 1000 living, a mortality mainly due to pulmonary disorders. In Paisley the death-rate was 43·6, including a large number of persons of sixty years of age and upwards. The inclemency of the weather has, doubtless, been the chief cause of this high mortality.

FROM ABROAD.

THE LOCAL TREATMENT OF ECZEMA.

Under this title Dr. Piffard, Professor of Dermatology in the University of the City of New York, read a paper before the Academy of Medicine, observing that while the action of local treatment is rather limited as compared with that of the internal and hygienic treatment, yet it should not be neglected, and in a few cases will succeed in dissipating the lesion, but not in preventing its relapse. In many cases it will materially assist internal treatment in abridging the manifestations of the disease, and in a certain number it will modify the subjective phenomena.

The congestive prodromal period of eczema is rarely presented to our notice except when it occurs in patients who are already suffering from more advanced eczematous lesions in other parts of the body. Under such circumstances the application of solid nitrate of silver will sometimes cause the disappearance of congestions which would have been otherwise expected to develope into frank eczemas. This active congestion, if uninterfered with, may give place to a chronic one of indefinite duration, characterised by redness, and often a trace of fine desquamation, with possibly a little occasional moisture alternating with the more usual dryness. Little attention has been paid to this form in the text-books, but an admirable delineation will be found in Duhring's Atlas. There is usually a moderate amount of heat and itching, and the face is most frequently the seat of this form of eczema. Although internal treatment is here the most important, a great deal of aid may be obtained from external means used in conjunction. The ordinary astringents may be employed, and benefit is derived from the use of a solution of bromide of potassium in rose-water and glycerine, varying its strength from ten to twenty grains to the ounce. Fluid extract of ergot or of arnica root, rubbed up with cold cream, is also of service. The pruritus ceases when the congestion is relieved, but when this is not done rapidly the various anti-pruritics must be resorted to, as hydrocyanic acid, chloroform, etc., and the mixture of equal parts of chloral and camphor, introduced by Dr. McCall Anderson—from ten to twenty grains of this mixture to the ounce of ointment often greatly relieving the itching.

In most cases, however, instead of simple chronic congestions there are developed certain special lesions, consisting of vesicles, pustules, papules, fissures, or an exfoliation of the horny layer of the epidermis; or there may be a mixture of two or more of these. This first stage of vesicles and pustules only lasts for a day or two, and requires little else than the use of cooling lotions, or better, the black or yellow wash (mercury and lime-water.) To this stage succeeds a second, characterised by exudation and crusts, and the accumulation of secretions and crusts from these necessitates ablutions. Unfortunately, water often aggravates the suffering and prolongs the disease, but a mixture of rose-water, to which are added a little glycerine and chloride of sodium, is much less irritating. The crusts having been removed by this, ointments may be used, of which perhaps the best, when nicely made, is that of oxide of zinc, its chief office being to shield the parts from friction and atmospheric influences. The most effective curative ointments in this stage contain some preparation of mercury, as ammoniated mercury, the nitrate, and the black oxide. Lead comes next, especially Squire's glycerole of the subacetate. If the affected surface be extensive, these ointments must be cautiously used, or symptoms due to mercury or lead may

ensue. The pruritus here is difficult of relief, for the chloral mixture cannot be applied to a surface denuded of its epithelium in consequence of the pain it causes; and chloroform should not be used with the mercurial or lead ointments, as it greatly promotes the absorption of these metals. It may, however, be used with zinc ointment, keeping this closely stopped to prevent evaporation. Decided relief is sometimes obtained by adding to the ointments a little tincture of *Hamamelis Virginica*, made from the fresh plant. Stramonium and conium are also useful anti-pruritics. In spite of all remedies the itching will often prove obstinate, only disappearing at the cure of the eruption itself. When acute eczema has passed through the period of exudation and crusting, and enters the third stage, characterised by redness, dryness, and scaling, the treatment has to be changed, some preparation of tar now being indicated—the *ol. cadini*, when genuine (which it seldom is), being the best. The tar is mixed with simple ointment in the proportion of one or two drachms to the ounce. In the fissured form of eczema, especially in the palms of the hands and behind the ears, plumbago ("photographic graphite" being the best) in ointment (one to ten), or mixed with lycopodium or other inert powder, is exceedingly valuable.

When an eczema becomes chronic, it does so either from sheer indolence, or in consequence of excessive infiltration. If the indolence be marked by venous stasis, dark bluish-red colour, etc., the *hamamelis* may be useful; but when this is not the case, and the colour of the patch is even paler than usual, irritating applications are called for. These may be hydrarg. biniod., hydrarg. bichlor., pot. iod., iodine, cantharides, croton oil, etc. The first three of these may be prescribed in ointments, but the physician should apply the last three himself—the iodine in tincture, and the cantharides in collodion. The croton oil is conveniently used in the form of solid cylindrical sticks, made by melting together equal parts of croton oil and white wax, and pouring the mixture into paper moulds. A single application of any of these irritants is often sufficient to change an indolent patch of eczema into an active one, which then only requires the treatment applicable to the second stage of ordinary acute eczema. Recently, Prof. Piffard has derived excellent results from the hypodermic injection of arseniate of sodium into the eczematous patch. He uses a solution of from one-fifth to 1 per cent. In a single patch of moderate size, a single injection of five to ten minims of the 1 per cent. or ½ per cent. is made; and if the patch be larger, or there are several of them, the weaker solutions are used, and two or more punctures made in the larger patches or distributed among the smaller ones. The injections are repeated at intervals of two or three days, as required. Chronic eczema, with excessive infiltration, seldom shows any tendency to heal until the infiltration has been somewhat removed; and the irritants just mentioned will probably only increase it. Its removal may, however, be frequently accomplished by strong alkaline lotions. If liq. potassæ, or a stronger solution of potash, be applied to the infiltrated patch, a more or less copious exudation of clear serum and a slight temporary increase of swelling are observed, the exudation continuing for some hours and then gradually diminishing. Coincident with the decline of the irritation, the infiltration in part subsides. The application may be renewed at the end of three or four days or a week. Instead of the potash, ordinary soft soap may be used, rubbing it well in with a bit of moistened flannel, until the exuding serum has a slight tinge of red—repeating the application once or twice a week if necessary, and using emollients in the intervals. The reduction of the infiltration may also be aided by stimulating the absorbents, for which purpose "kathodic" galvanism is the most effective agent. When this is not attainable, some of the acro-narcotics of the American indigenous materia medica are to be employed, as hydrastis and iris versicolor, used in the form of tincture; or the tincture of the wild viola tricolor. After the infiltration has been in part or wholly removed, the patch of eczema will be in a condition to benefit by the mercurial ointments, etc., followed, if necessary, by tarry applications.

Some modifications have to be made in the treatment, according to the seat of the eczema. When it affects the scalp in children, and is extensive, the crusting may be very great, the parts becoming the home of pediculi. Delphine or kerosene will destroy the insects; poulticing will soften and aid in removing the crusts; and cutting the hair will greatly facilitate recovery. When the hairy parts of the face are attacked, the morbid action is sometimes propagated to the lining membrane of the hair-follicles, constituting one of the affections which commonly pass under the names of mentagra and sycosis. All the hairs proceeding from the diseased follicles must be removed by epilation, in order that the remedies may reach these. When eczema succeeds intertrigo of the sub-mammary and genital regions, in fleshy women, dusting-powders play an important part. When eczema of the legs is complicated with varicosis and considerable infiltration, elastic compression is of great service. Indolent and thickened eczema of the palms and soles is often exceedingly obstinate. The thickened epidermis should be rubbed down with sand-paper or pumice, and the parts enclosed at night in indiarubber fabrics. The cutaneous exhalations so retained macerate the parts and excite healthier action.

In the discussion which ensued on the reading of the paper, Dr. Bulkley observed that as regarded local treatment he would especially mention the good effects of *hot water*, and especially in the treatment of eczema of the hands and arms with a thickened and cracked condition of the skin. He immerses the palm in water as hot as the patient could bear, allowing it only to cover the affected portions of the skin. The immersion should be frequently repeated; and after soaking for several minutes, Hebra's diachylon ointment should be applied, spread on muslin. In eczema of the lower extremities, Martin's indiarubber bandage has the advantage over the elastic stocking in the fact that the more the patient walked, the more rapidly did he improve. It should be applied before rising, and removed on going to bed, enveloping the limb in cotton secured by a handkerchief. Dr. Bulkley directed attention to the mischievous action of water in eczema, especially in children, the eruption not being curable if attempts be made to keep the surface clean by washing. He prefers to use calamine and oxide of zinc in solution, as they can thus be more evenly applied to the diseased surface. He uses nitrate of silver in all stages of eczema, and especially in that of the scrotum, dissolved in nitrous ether, in the proportion of ten to thirty grains to the ounce. The same preparation is very useful in eczema about the anus. He also uses the nitrate in the solid form, almost always touching with it the fissures in what is called "washerwoman's itch." When in eczema of the anus, also, there are fissures, he cauterises these thoroughly, and then introduces a pledget of cotton. Dr. Piffard when replying, adverted to an application for the relief of pruritus which he had forgotten—namely, a saturated solution of iodoform in ether. When the ether evaporated it left the iodoform evenly diffused over the patch.

QUEEN'S UNIVERSITY IN IRELAND.—At a meeting of the Senate of the University, held on Tuesday, December 31, it was arranged that the Examiners in Medicine, Surgery, Materia Medica, Medical Jurisprudence, and Midwifery should for the future hold office for four years, instead of for two years as hitherto.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN DECEMBER, 1878.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen as Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.	
				Saline.	Organic.	Before Boiling.	After Boiling.
Thames Water Companies.	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	23·70	0·075	0·181	0·000	0·010	15·9	4·0
West Middlesex...	23·30	0·089	0·090	0·000	0·010	14·3	4·2
Southwark and Vauxhall ...	22·20	0·115	0·120	0·000	0·005	14·3	4·6
Chelsea	22·50	0·073	0·120	0·000	0·010	14·8	5·1
Lambeth	22·00	0·108	0·105	0·000	0·010	14·3	5·1
Other Companies.							
Kent	29·50	0·002	0·360	0·000	0·002	17·60	5·1
New River ...	21·40	0·057	0·165	0·000	0·005	14·8	4·2
East London ...	23·00	0·065	0·105	0·000	0·009	14·8	5·1

Note.—The amount of oxygen required to oxidise the organic matters, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours.

The water was found to be clear and nearly colourless in all cases.

REVIEWS.

A Practical Treatise on Diseases of the Testis and of the Spermatic Cord and Scrotum. By T. B. Curling, F.R.S. Fourth Edition, revised and enlarged. London: J. and A. Churchill. 1878.

The author, in his preface, says that he has made such additions and amendments to this new edition as his increased experience has enabled him to furnish, and that he has added some new subjects, including congenital hydrocele of the spermatic cord, and lymph-scrotum. The work has long enjoyed a special pre-eminence, not only in England, but also on the Continent, as a standard authority on the subjects of which it treats. Thus M. Gosselin's French translation with annotations is not less popular in France than is the original in this country. The additions now made, together with the pathology of the various diseases, interpreted in the light of modern views, cannot fail to add to the value and popularity of Mr. Curling's latest edition.

The first three chapters deal with Congenital Malformations, Lesions of Nutrition, and Injuries of the Testicle. Chapter IV. treats of Hydrocele. The various forms of hydrocele are developed and illustrated with cases somewhat more fully than in former editions, and a section on congenital hydrocele of the spermatic cord is added. This form is described thus:—"The unobliterated funicular process of peritoneum in which fluid collects in encysted hydrocele of the spermatic cord may retain a communication with the abdomen, and so constitute a congenital hydrocele of the cord." It is stated that Malgaigne first described the affection in a thesis published in 1848, and that a more elaborate essay on this subject was published in 1866 by Dr. Melchiori. Congenital hydrocele of cord is also mentioned in "Holmes' System of Surgery," by Dr. Humphreys. It would seem strange that this variety should not have been thoroughly recognised and described in earlier editions. Mr. Jordan brought before the Medical and Chirurgical Society, last year, a paper on "Two Peculiar Varieties of Hydrocele of the Cord." On this occasion (*vide Medical Times and Gazette*, October 13, 1877, page 425) most speakers seemed to regard these cases as not very uncommon. Mr. Hulke stated that he had frequently found them in post-mortem examinations; and our own experience would rather bear out this view; for we have seen in young infants hydroceles of the cord which could be emptied by carefully pressing on them while the child was in the recumbent position. Mr. Holmes refers to them in his book on the Surgical Diseases of Children, and regards them somewhat guardedly—but correctly, no doubt—as among the "rarer forms" of hydrocele in children. By analogy, one would expect them to exist pretty often, for congenital hernia is common enough, and the anatomical conditions in the two cases are very analogous, differing in extent rather than in kind.

Our space will not allow us to go into individual chapters; neither is it necessary in such a well-known book as the one before us. We find, in the chapter on Cystic Disease of the Testicle, that the author maintains his own original view that as "neither the tubuli seminiferi nor the ducts of the epididymis are the tubes which undergo the changes constituting the cystic disease, its seat may be considered as conclusively traced to the ducts of the rete testis." In his diagnosis of these cases, the author says, "The characters of the cystic disease are in general so similar to those of malignant tumours, that I can give no satisfactory directions for distinguishing them." We do not find that the author quite sufficiently brings out the compound nature of some cystic tumours. We think that there is "a rare affection commonly called cystoma," developed within the tunica albuginea; and we accept the author's view of its common origin in the rete testis—anatomical and mechanical reasons seem alike to favour such a view,—but we also think there is a disease accompanied largely by the formation of cysts, which is malignant from its very commencement; and this disease we should rather have regarded as the more common form of cystic disease, the cysts often being the most prominent feature of the organ when removed, and being filled with colloid material. The chapter on Varicocele is full of interest; and the author speaks with considerable authority on this important and often troublesome disease, from a large personal experience. In slight cases a truss is advised; and in more severe cases the plan of obliterating the spermatic veins is advocated. We approve highly of the plan, as modified by the author—of tying the veins in two places, with a piece of cardboard between the external skin and the constricting threads, by means of which ulceration of the skin is avoided, and the pain and danger are reduced to a minimum.

We cannot close this notice without a word in commendation of the appearance and "get up" of the book. It is a model of what a scientific book should be. The type is large and clear, and the engravings leave nothing to be desired.

Traité des Maladies de la Vessie et de l'Affection Calculeuse. Par le Dr. Henri Picard. Paris: Baillière et fils. 1879.

A Treatise on the Diseases of the Bladder, and on Stone. By Dr. Henri Picard.

This is the last of three volumes which Dr. Picard has published upon the diseases of the prostate, the urethra, and the bladder, and is arranged upon the same plan as that adopted in the former essays, which we have already noticed. The book is divided into two parts, the first of which is concerned with the diseases proper to the bladder; the second, with the origin, symptoms, and treatment of urinary calculus.

There is a careful description of the anatomy and physiology of the bladder, and the author discusses the question whether absorption takes place from its mucous surface. It seems probable that the healthy bladder has little or no absorbing power, but that when inflamed it is capable of absorbing medicines with considerable facility.

Of the deformities of the bladder the only one needing consideration is that of extroversion, to which a section of the book is devoted. A description is given of M. Simon's operation for diverting the urine into the rectum; and also of the various autoplastic methods of covering the exposed mucous surface, devised by Pancourt, Wood, Le Fort, and others.

Cystitis is next treated of, and besides the description of the usual varieties of this disease, especial attention is called to the symptoms and treatment of inflammation of the neck of the bladder, for which the author recommends large doses of the balsamic remedies, and the instillation of solutions of nitrate of silver. We venture to doubt, however, whether the disease is often thus limited.

After a short section on wounds of the bladder, the operations for the cure of vesico-vaginal fistulæ are considered, and good illustrations of the required instruments and the mode of using them are given.

In the chapter on tumours of the bladder the author separates fungous tumours from cancerous and other growths, and describes under the name of fungus of the bladder what is ordinarily known in England as villous tumour. Of this he speaks of three varieties—the solid polyp, with a surface of villous tissue; the sessile villous growth; and the bunch of loose tissue upon a stalk, and with a fringed surface. We are surprised that the author makes no mention of the aid to the diagnosis of these growths in the female bladder which is to be obtained by a digital examination through the dilated urethra.

A brief account of tuberculous and cancerous disease of the bladder is followed by a chapter on retention of urine and its treatment, and also by one on incontinence of urine. The latter important subject is very briefly dismissed, and we think more might with advantage have been said about the various kinds and causes of incontinence.

The second part of the work is occupied with stone and its treatment, and first with renal calculus, of each symptom of which an elaborate account is given. We think the plan here adopted, of describing separately the nature, prognosis, and treatment of each symptom of the disease, is not a good one; it leads to needless repetition, and renders the account of the affection diffuse and disjointed. This part of the work, indeed, savours rather of book-making.

The various kinds of vesical calculi are next described and illustrated, chiefly from Beale's work; after which the operations of lithotrity and lithotomy are considered. The author has here drawn largely upon Thompson's work, and we do not perceive that he has added anything to our knowledge of the subject.

REPORTS OF SOCIETIES.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, DECEMBER 20, 1878.

Dr. STEVENSON, President, in the Chair.

THE minutes of the previous meeting having been read and confirmed, a letter was read from the Clerk to the Local Government Board, in reply to an inquiry of the Secretary (Dr. Vinen), which stated in effect that they saw no reason for altering the law in respect of persons admitted to fever hospitals, supported by the rates, being *de facto* deprived of their electoral rights.

Dr. DUDFIELD having expressed surprise at the reply received from the President of the Local Government Board, said that he had been in communication with several members of Parliament, and was present in the House of Commons as referee when the Disqualification by Medical Relief Bill was passing through committee. He assured the members that the whole question, as urged by the Society at their last meeting, had been fully considered in the House of Commons, and now such recipients of pauper relief will be placed on the same footing in respect of the franchise as the recipients of public vaccination. The Bill consisted of one clause, which had been amended at his suggestion, as follows:—1st. That such recipients of pauper relief shall be entitled to vote at "municipal" as well as "parliamentary" elections. 2nd. The words "or contagious" to be omitted after "infectious." 3rd. The word "out-patient" to be omitted.

The SECRETARY having applied to the Metropolitan Asylums Board for thirty-seven copies of the minutes of the Board's meetings, to be distributed to every metropolitan medical officer of health, the Board resolved that two copies only be sent for the use of the Society. It was then resolved that Dr. Tripe be allowed to keep the second copy for reference by any member of the Society.

Dr. DUDFIELD proposed that application be made to Mr. Wakefield, of the Local Government Board, for copies of any by-laws that may now be under consideration for the Management of Dairies, etc., in accordance with the provisions of the Act of last session.

Dr. J. F. W. Tatham and Mr. F. W. Clarke, Medical Officers of Health for Salford and Bury St. Edmunds, respectively, were elected as extra-metropolitan members. Dr. A. Collie, Resident Physician, Homerton Fever Hospital, and Dr. J. W. V. Bindon were elected as associates.

Letters were read from Drs. Baylis and Thursfield, regretting their inability to read papers as promised for that evening.

Professor CORFIELD then read a short communication on "The Admission into General Hospitals of Persons suffering from Infectious Diseases." He had inquired, he said, whether it was true that infectious fevers were admitted into the wards of our general hospitals, and had written letters to the resident medical officers, inquiring as to the practice of each hospital. The result of these inquiries was as follows. There are eight hospitals in London where scarlet fever cases are refused admission. There are three general hospitals which admit scarlet fever cases—Bartholomew's, St. Thomas's, and King's,—but there are no fever wards at King's. Children developing fever after admission are transferred from the children's wards to the adult wards. Dr. Corfield said that, when studying in Paris, he had distinctly seen small-pox pass from bed to bed in the general wards. Sir William Gull had written to the effect that it was a shame to afford charitable relief with one hand, and expose patients suffering from one serious disease to the exceedingly dangerous alternative of contracting a second disease, the two together very likely proving fatal. There is a great temptation to register such fatality as due to the ailment for which the patient was admitted. At Guy's, scarlet fever cases have been refused for some years past.

Dr. TRIPE then read a paper entitled "The Contagiousness of Enteric Fever," of which we subjoin an abstract as follows:—He had been induced to make a few remarks on this subject, partly in consequence of the frequency with which persons attending on or visiting these cases are told by the medical attendant that it is "not catching," and partly because of the prevalent belief that the disease is caused by filth or non-specific emanations from the sewers or house-drains. The disease rarely, if ever, spreads except by contagion; that is to say, by the transfer of a contagium from one person to another. He was not prepared to say that it is impossible for the contagium to be carried by the air from an infected to a healthy person, but he had not met with cases which satisfactorily proved this; on the other hand, there is not only much negative evidence against it, but a very large amount to show that it is spread by means of milk or other food, or by the hand being applied to the mouth after contact with the patient's discharges. The negative evidence as to sewer emanations or filth causing the disease in the Hackney district is very strong, as cases are comparatively rare in certain streets and places inhabited by the poor, where cleanliness as regards the water-closets and drains is but little observed; whilst in the better-class houses, where the arrangements connected with the removal of excrementitious matters are more perfect, the disease more frequently occurs. The percentage of infected houses having defects in the water-supply and drainage apparatus is small as compared with those in which defects are not found. It may be said, as the result of calculations founded upon careful examination of houses in the Hackney district, that defective drains or water-supply apparatus were found during this year in one-sixth only of the infected houses. The evidence, on the other hand, as to the occasional spread of this disease by milk is undoubtedly strong. Two public institutions situated nearly a mile apart were supplied by the same milkman, whose son was at that time suffering from enteric fever. The fact that a second case did not occur in sixty-six houses out of seventy-three shows that, with care, the disease should not spread in a house unless there be an unusual predisposition to it amongst the inmates; whilst the way in which it spread in two of the families, attacking one member of the family after another during a period exceeding two months, decidedly shows its contagious character. Dr. Collie, in a late number of the *British Medical Journal*, relates two cases of typhoid which occurred amongst the washerwomen of the hospital, which were, in his opinion, caused by contagion, and not by emanations from filth or the dirty clothes of patients. He refers in his communication to an outbreak at Westminster, which is cited by Dr. Murchison as an instance of pythogenic origin, but which opinion Dr. Collie combats. Dr. Corfield, in a paper read before the Epidemiological Society, expressed a strong opinion against the spontaneous origin of enteric fever, and his belief in its contagiousness.

In the debate following the reading of the papers—

Dr. BRISTOWE agreed that it was improper to admit infectious fevers to the general wards of a hospital. Wards should be set apart for such cases. On theoretical grounds we may conclude that typhoid fever is infectious, but not in practice. We may with impunity admit such patients to the general wards without any fear of it spreading through the breath or the skin, but through the bowel-discharges it may be spread. With careful disinfection this ought not to occur. He narrated the circumstance of an outbreak of enteric fever at Dulwich, where six or eight of a family contracted the disease in nine months. It was found that the drains were not properly connected with the sewers. The family vacated the house for eighteen months, so as to have the drainage arrangements entirely remodelled. It was found that the family had been in the habit of drinking water from a well which communicated with an abandoned drain. Extremely little risk is incurred by admitting one or two typhoid patients to the general wards of our hospitals, as the disease is infectious only under certain conditions. It is desirable to exclude typhus from the general wards.

Dr. PRICE JONES quoted some cases of typhoid fever where the house had been unoccupied for some time; the drains were found communicating with the interior of the house, and improperly trapped. He was of opinion that decomposing excreta may develope a poison capable of generating typhoid fever.

Dr. DUDFIELD said that he believed many sanitary officers, considering typhoid fever as non-infectious, thought it unnecessary to disinfect the clothing and the rooms. He had always adopted the same precautions with this disease

as with small-pox and scarlet fever. It is important to remember that milk often becomes contaminated with germs of fever. There had been an epidemic of typhus in a workhouse infirmary having about 700 cubic feet allotted to each patient. The fever spread to several of the inmates from one patient who had been admitted, and some of the cases were fatal. Dr. Dudfield considered it exceedingly desirable that, for the study of disease, wards should be provided for infectious cases in all our hospitals.

Dr. MURPHY, who had considerable experience of fever hospitals and their proper management, said that enteric fever developed in hospitals just in proportion as the drains were imperfectly constructed.

Mr. JACOB alluded to a case where three sisters, sleeping in the same room, contracted typhoid fever. The drains were in good order, and several other people from a cottage close by drank water from the same source without being ill. He knew of cottage hospitals where typhoid fever had been admitted without spreading to the other inmates; but not so with typhus, for it spreads rapidly.

Dr. STEVENSON had never known typhoid spread where the drains were in order. At Guy's Hospital there was once a very fatal epidemic, the poison being very condensed.

Dr. CORFIELD, in his reply, said he was pleased to find a general agreement that communicable diseases should not be admitted to the general wards of our hospitals. There are plenty of towns in the most filthy and imperfect state as respects sanitary conditions, and yet typhoid fever is almost unknown. Diarrhœa only will result from ordinary sewer-gas emanations. No doubt most agree that the specific poison is a solid or particulate body, and is contained in the discharges from the bowels. It may possibly contaminate the atmosphere through the flatus discharged from the bowel. Because the nurses seldom take it, is no evidence against a specific poison, for they do not imbibe the water thus contaminated.

Dr. TRIPE replied that, as a rule, the milk was taken direct from the dairy to the shops, and within twenty-one or twenty-two days after, several cases of typhoid were reported at the same time from various parts of the milk-walk. The shopman was suffering from diarrhœa, and in dealing out the supply the fingers may have infected the milk. He invariably advised that excreta from typhoid cases be disinfected with sulphate of iron or carbolic acid, and the rooms should be disinfected. It is very noteworthy that typhoid generally occurs in the better class of houses.

Dr. DUDFIELD then made a few remarks upon the practicability or otherwise of giving due effect to the intentions of Sec. 35 of the Sanitary Act, 1866, especially with regard to the amount of cubic space in dwelling-rooms; and the advisability of inviting the Local Government Board to obtain powers to enforce the provisions of the section. He had addressed a circular upon this subject to all the medical officers of health in the metropolis, to which he had received thirty replies. In seventeen cases the vestries had altogether failed to put the Act into operation. In four others the by-laws had been duly confirmed by the Home Secretary, but had not been put in force by the vestries. In another case the owners of property had succeeded in preventing the attempt of the vestry to carry out the intention of the Act. It was evident that this section of the Act is practically a dead letter in most vestries. The direct advantage to be gained by this section is the regulation of the number of inmates allowed to reside in a house occupied by more than one family. He desired to know the views of the Society as to whether there was any practical way of getting the Act properly enforced, as it was very needful for the efficient discharge of the duties of a health officer.

Dr. BRISTOWE remarked that one great difficulty in the way was that, before proceedings could be taken, it was necessary to give notice both to the occupier and the landlord. As the occupier so frequently changes his abode there is much difficulty in requiring that the landlord shall see his house kept in order. If the parish regulations were a little modified we could have a better check upon the numbers inhabiting the several houses.

Dr. HARDWICKE thought that the sanitary inspectors failed very much in their required duties of systematic house-to-house visitation. They waited till an epidemic occurred, and then they were generally very busy in endeavouring to check the spread of contagion.

Dr. BRISTOWE thought it desirable that the Society should memorialise the Local Government Board with a view to regulations being framed of a uniform character in respect to the spread of contagion, etc., requiring the local authority to frame simple regulations for the due carrying out of this section of the Sanitary Act, 1866.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, DECEMBER 18, 1878.

W. A. N. CATTLIN, F.R.C.S., Vice-President, in the Chair

AT the ordinary meeting of this Society the following gentlemen were proposed as Fellows:—Dr. George Yarrow, Mr. Edward J. M. Phillips, and Mr. R. Wentworth White. Dr Robert Hazleton, Mr. Alexander Stewart, Mr. Thomas Howkins, Mr. George W. Smith, and Mr. E. A. Morgan were duly balloted for and elected fellows.

CLOSURE OF THE JAWS.

Mr. FRANCIS MASON exhibited the lad, aged eight years, whom the Fellows had had an opportunity of seeing at the last meeting, prior to the operation (Esmarch's) being performed for closure of the jaws from a cicatrix, the result of cancrum oris. This consisted in removing a portion of the lower jaw (which Mr. Mason showed) in front of the cicatrix. The boy could now separate the incisor teeth of the jaw on the right side to the extent of fully one inch and a half.

ON ANÆSTHETICS.

Dr. C. MEYMOTT TIDY read this paper. He esteemed it an honour to have been invited to address the Society on a subject which is at this moment receiving very considerable attention. He remarked that the question of the use of anæsthetics was a broad, and not a narrow one, and that it was a professional question in its widest and most comprehensive sense. He proposed to regard the subject of anæsthetics generally, and perhaps more from a medical jurist's point of view than any other. After briefly alluding to bichloride of methylene, the value of which as an anæsthetic had not on a large scale "been proved," Dr. Tidy remarked that the three anæsthetics around which interest chiefly centres are chloroform, ether, and nitrous oxide. Each has its disadvantages and advantages. After discussing these points, the question arose, Why do we give anæsthetics? To sum up in a few words, it was "to diminish nervous and mental tax." What does this phrase, "nervous and mental tax," signify:—1. Anæsthetics relieve mental and nervous tax by allaying the apprehension and fear of an operation. The degree of apprehension differs with different temperaments, its evil effects differing accordingly. We cannot say that anæsthetics are justified only in proportion to the magnitude of an operation, but that they are equally justified in proportion to the dread the patient has of that operation. An anæsthetic, from this point of view, may be more needed by one who is going to have a tooth out than by one who is going to have his leg off. Further, by giving way to a patient's clamour for an anæsthetic we need not imagine that we are merely humouring whims, but rather that we are considering actual needs. 2. Anæsthetics relieve mental and nervous tax by producing insensibility to pain. This, of course. "No one ever died of pain," is a common saying; and, like most common sayings, this is absolutely untrue. People do die of pain; and to relieve that pain is the duty and privilege of our profession, for the twofold reasons—(*a*) that of rendering life happy; and (*b*) of prolonging it. These are days of advanced civilisation, and the higher nervous sensibilities of the nineteenth century life render the administration of anæsthetics more necessary than they would have been amongst people less highly civilised than ourselves. Compare, for instance, the rough cart-horse with the high-bred race-horse—the former seems to heed not the emptying out of a cart-load of bricks at its back; the latter is terrified by a clap of the hands. This much, then, in answer to the question, How did our forefathers manage without anæsthetics? Again, let us regard this subject from another point of view. It has often been made a charge against sanitarians that the death-rate is exactly the same to-day as it was twenty-six years ago, before medical officers of health were appointed. Our answer is, that the population has increased, and with this no increase

of the death-rate. And why? Because with the increased risk we have used means, and used them effectively, to diminish the sanitary evil arising from a large population. So in surgery, the nineteenth century has brought with it increased risk in the matter of surgical operations, a state of high nervous tension being one of them. Anæsthetics are discovered, and we are able to record a grand surgical triumph—viz., a diminished mortality from operations, even including the deaths arising from the anæsthetics themselves. 3. Again, anæsthetics allow for more elaborate, prolonged, and careful operations to be performed than formerly, and in this respect patients have reaped great advantages from their introduction, the question of time ceasing to be an element as it once was. Time is an element, undoubtedly, but care, precision, completeness, are far greater elements in the work of a great operation. 4. Once more the after-action of the anæsthetic diminishes the need there was, before anæsthetics were introduced, for the administration of opiates after the operation. This is a true gain, for we know what opiates mean, and how the need begets the habit. Such, then, are the reasons why we give anæsthetics. Let us now consider what may be called the doctrine of risks. Risks are of three kinds—first, the daily risks of life over which we have but little, if any, control; secondly, the risks we encounter through mere recklessness; and thirdly, the risks we run deliberately for the purpose of avoiding greater evils. This specially concerns us. Note first, that the giving the anæsthetic is a risk. In the one scale we have the illness, and possible fatal result, of the anæsthetic; in the other scale we have the effects of the pain itself on the patient, and more particularly the nervous exhaustion and shock resulting from the operation, if the anæsthetic be not administered. These risks are run deliberately, and the rules for guidance cannot be reduced into pen-and-ink maxims for common use. And why? "Many men, many bodies," we answer—states of health and mental peculiarities are just as numberless as grains of sand. The scales by which the balance is to be decided should be in the hands of men who know how to handle the scales, i.e., in the hands of duly qualified medical men, and in their hands only. With whom, then, rests the "deliberation"? Partly, no doubt, with the patient, and partly with his adviser in the first instance; but, having consented to take the anæsthetic, he is then absolutely in the hands of his adviser. Hence the balance of risks should be intelligently considered by one capable of considering them intelligently; but more than that, the administration of the anæsthetic itself should be absolutely confined to a qualified practitioner. It is totally unjustifiable for any unqualified practitioner, however qualified as a dentist, to administer an anæsthetic to any patient, no matter whether it be nitrous oxide or chloroform. We admit therefore a risk. By what means can the risk attendant on the administration of anæsthetics be reduced to a minimum? (*a.*) Choose in every case the safest anæsthetic, of which nitrous oxide stands first on our list; then ether; and lastly chloroform. We should not be justified in saying that the latter should never be used in dental operations, any more than we could say it is never to be used in any other operation; but its use should be confined to exceptional cases. (*b.*) The anæsthetic should be administered at the patient's house. (This applies more especially to ether and chloroform.) (*c.*) No anæsthetic should be administered except by a qualified medical man, and if possible by an expert. (*d.*) The operator should have nothing to do with the administration of the anæsthetic, and *vice versâ*. (*e.*) If possible, a third qualified medical practitioner should be present, in the event of something going wrong. (*f.*) Everything that could possibly be required in the event of an accident should be in readiness. Dr. Tidy, in conclusion, remarked that, addressing as he was doing a Society of *true* Dental Surgeons—true in contradistinction to dental surgeons falsely so called—he had abstained from drawing any absolute distinction between dental operations and any other surgical operations, for the rules that should guide us in one surgical operation should guide us in all others in this particular. He trembled to think how often anæsthetics were administered by non-qualified men, and we should lose (although the remedy was in the hands of the public) no opportunity of protesting with all our power against so terrible an evil—this playing with red-hot coals. As a medical jurist it had to him an even deeper significance. Should it be allowed, this administration of deadly drugs by non-qualified men, and that without the presence of others, on simply moral grounds? God forbid that any charge should be made against those outside our profession! Anæsthetics have been administered for improper purposes, as the black list of cases which had come before him professionally abundantly proved. This possible evil must be guarded in every way. The law may be made all-powerful; but as yet it is not. To make the administration of anæsthetics illegal by non-qualified men, and to render it essential that more than one person should be present, would perhaps be a guard on the purity of our women, and also prevent false accusations (so easy to make and so hard to meet) being made by designing persons against ourselves. These, then, are the thoughts for your consideration. Saving a patient pain, arresting the evil results incident to a serious operation, are noble objects, and the science which has effected this has been a great benefactor of humanity. We need not fear admitting that such magnificent results are associated with certain risks, and the public will think no worse of us, and all the better of us, for admitting what they know as well as we do, and for grappling boldly with the difficulty. Thus, and thus only, shall we inspire that confidence in our professional work which it so justly deserves.

A discussion ensued, in which Messrs. Catlin, Mason, Napier, Bailey, Edgelow, and H. Cartwright took part, and the discussion was adjourned until the next meeting on January 22.

Apparatus for Administration of Chloroform.

Mr. Mills (Chloroformist to St. Bartholomew's Hospital) exhibited his apparatus for the administration of chloroform for operations about the mouth, where the difficulty of maintaining anæsthesia has long been a source of much trouble to both operator and administrator of the anæsthetic.

The meeting then adjourned.

EPIDEMIOLOGICAL SOCIETY.

Wednesday, January 1.

Surgeon-General J. Murray, M.D., President, in the Chair.

Etiology of Autumnal Diarrhœa.

Dr. William Johnston, of Leicester, read a paper on the above subject. He began by pointing out that the mortality for a number of years from this disease considerably exceeds that of any other zymotic malady, but that the disease arises from causes pre-eminently under control. From statistics taken at Leicester it was found that although the deaths were confined almost entirely to children, the majority of those attacked were adults, also that in many cases several persons, adults and children, suffered in one house, thus indicating a common cause. A microscopic examination of the discharge from the bowels and stomachs both of adults and children disclosed the presence in large numbers of bacteria (*monas crepusculum* and *bacteria termo*). From this he argued that the disease depended on putrefactive changes induced in the bowel contents through the agency of these minute organisms. In treating of the theories of causation, he stated that those usually accepted, viz., artificial feeding, impure water, and maternal neglect, were not supported by the statistics of Oldham, Halifax, and other large towns, where the mortality from this disease was small, and where these conditions were certainly not wanting. In towns engaged in similar branches of industry, and employing the same proportion of female operatives, the death-rates from this disease were subject to very considerable variations. Atmospheric conditions appear to act only as excitants of the disease. A careful tabulation of the meteorological conditions and diarrhœa mortality of each year since 1866 led to the conclusion that the prevalence of the disease appeared to be governed by temperature, humidity, and rainfall. The combination of these most favourable for the disease was high temperature, low degree of humidity, and scarcity of rain, these conditions of weather being favourable to rapid aqueous evaporation. Through solar influence the subsoil of towns at sewer depths is found to reach putrefactive temperatures by the end of June and beginning of July, and in localities where the sewers, through insufficient fall or defective construction, are liable to retain excretal matters, these matters are then found to be in a state of active putrefaction. The moist air in ill-ventilated and non-cleansing

sewers, when the temperature of the latter is above 57° Fahr., contains bacteria of the genera micrococcus and bacterium termo, the numbers present being in direct ratio to the increase of temperature from 57° to 69·5°. The air of an insufficiently ventilated system of sewers undergoes a daily range of temperature varying from 3° to 12° Fahr. The greatest daily fluctuations take place in the air of main sewers; in these the lowest temperatures occur between 3 and 4 p.m., and the highest 5 and 6 p.m. The temperature in the air of the sewers of a manufacturing town is never at any given moment uniform throughout the system; for owing to the frequent receipts of heated water from factories and other sources the temperature in the low-lying main culverts is found throughout the day to be from 5° to 9° Fahr. higher than that in the neighbouring sewers radiating from such culverts. An exactly opposite relationship with respect to these sewer temperatures is found to exist during the greater part of the night, for then the temperature in the air of the main culverts is lower than in the tributary sewers. Owing to such variation, ascending aërial currents are established during the day, irrespective of the low specific gravities of some of the component gases, and if from defective construction or other cause any section of the main culverts retains excretal matters, the specific contamination which such matters contain are thus carried into the remotest branch sewers, though these latter may extend to considerable distances, and occupy much higher levels. Stagnation and deposit occurring in a main sewer soon impart a common character to the air of all confluents. The air of badly sewered localities always yields, during the summer months, fungoid elements ranging in character from micrococcus to mycelial filaments. Dr Johnston considered that diarrhœa, as it affected both adults and infants during the summer months, owed its origin in the majority of instances to the introduction of these living organisms into the system by means of air or food, and that the disease depended upon putrefactive changes in the bowel contents which were correlative to the development and multiplication of the microscopic organisms. Charts were exhibited indicating the distribution of the diarrhœal deaths in Leicester during the epidemic of last summer. From these it was seen that there was a special incidence of the disease in those districts of the town where the sewers were found to contain deposit. Dr. Johnston observed that those towns which possess sites admitting a considerable fall of their sewers have a very low death-rate from the disease under consideration, but that for those towns possessing sites which do not admit of their sewers having a good fall, the opposite is true, and this irrespective of their industries. The medium at present used to confine sewer-air—viz., water—fails to prevent the passage of bacteria through the traps. If the sewers contain deposit, the water in the traps of the drains soon affords evidence of the presence of bacteria derived from the putrefaction of the deposit; from this water they pass readily into the air. Contamination of air from putrefying animal refuse is thus brought about with as great certainty as, though in a less degree than, if excrement were stored upon the surface and in close proximity to human habitation.

NEILGHERI JALAP.—Specimens of jalap-root from plants grown on the Neilgheris were sent home in November last for opinion regarding its value. From a report of Dr. Forbes Watson, it appears that they yield from 14 to 15 per cent. of resin, and that the latter yielded 80 per cent. of jalapine. This is considered a good result, and gives encouragement to the extended cultivation of the plant on the Neilgheri hills.—*Indian Med. Gaz.*, December.

CANTHARIDINE IN NÆVUS.—Dr. Coutissois, in a thesis on the physiological and therapeutical effects of cantharidine dissolved in chloroform, gives an account of the successful treatment of nævus by M. Laboulbène by means of this agent. The formula is cantharidine, a tenth of a part to ten parts of chloroform. Applied to the skin, this in a few hours induces vesication (far less painfully than by ordinary blistering), the phlyctenæ continuing to increase for six or eight hours, and then remaining stationary for from twenty-four to thirty-six hours. This application exerts a direct action on the deeper-seated portions of the skin, attainable by no other form of cantharidis.—*Jour. de Thérap.*, December 25.

NEW INVENTIONS AND IMPROVEMENTS.

THE VENTILATORIUM.

THE patentees of this new article of clothing speak for themselves as follows:—

"The 'Ventilatorium' is a newly patented invention, applicable to garments made of waterproof material. Hitherto the great objection to waterproof garments has been the want of proper ventilation, thereby causing discomfort and also injury to health of the wearer. The present invention completely obviates these objections, and supplies to ladies and gentlemen the great desideratum of a perfectly waterproof garment, thoroughly ventilating, and without the least disfigurement of the appearance, and may be worn with comfort as an ordinary overcoat, which never was accomplished until the invention of the patent Ventilatorium. The patent vulcanised material of which the 'Ventilatorium' is made has been subjected to the severest tests, and is not affected by heat or cold, and will remain perfectly soft and limp during severe frost. Special advantages—secures perfection in ventilation; can be worn in comfort in all weathers; does not differ in appearance from an ordinary overcoat; is not injurious to health; is applicable to all climates."

These are high words, and perhaps not very easily resolved into deeds, but if they do not absolutely attain to impermeable waterproof from the outside and a material permeable to perspiration from the inside, Messrs. Bartrum and Harvey have come as near perfection as is well possible. We have tried the new material in all weathers—hot and cold, snow and rain—and we have found it in whatever shape, as overcoat or travelling cap, equally satisfactory. Many of our country brethren have given over the use of waterproof clothing of the vulcanised type as being at once unwholesome and uncomfortable. If they will try one of Bartrum and Harvey's coats, which only cost between 40s. and 50s., we think they will change their minds. Not too soft in hot weather, nor too hard in cold, the new material far surpasses anything of the kind we have seen. Anyone can, we believe, obtain it through his own tailor.

OBITUARY.

HENRY J. TYRRELL, F.R.C.S.I.

THIS well-known surgeon died at his residence, Merrion-square North, Dublin, on Tuesday, December 31, aged forty-five years. The immediate cause of his death was cold caught while suffering under chronic renal disease. Mr. Tyrrell commenced his professional career as a Demonstrator in the Ledwich School of Medicine, from which he passed to the School of the Catholic University in Cecilia-street, ultimately filling the chair of Surgery in it with very great ability and success. Some years ago he was appointed a Surgeon to the Mater Misericordiæ Hospital, in which capacity he earned a deservedly high reputation as a dexterous operator as well as a safe and trustworthy surgeon. Mr. Tyrrell was a Fellow, and for some time a member of Council, of the Royal College of Surgeons in Ireland.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS IN ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 8th inst., and when eligible will be admitted to the pass examination, viz.:—

Aird, Thomas W., student of the Dublin School.
Allen, Francis E., of the Bristol and St. Bartholomew's Hospitals.
Branson, George A., of University College Hospital.
Brunton, Thomas E., of the Cambridge School.
Chitty, Alfred G., of University College Hospital.
Faulkner, Herbert, of University College Hospital.
Hormazdji, Robert N., of St. Mary's Hospital.
Nicholson, Ranald W. E. H., of King's College Hospital.
Seymour, John R., of the London Hospital.
Shepherd, Timothy A. J., of Guy's Hospital.
Smith, Henry S., of the Bristol School.
Stacey, Herbert G., of Guy's Hospital.
Pincott, James C., of Guy's Hospital.
Powell, Simpson, of King's College Hospital.

Five candidates having failed to acquit themselves to the satisfaction of the Board, were referred to their Anatomical and Physiological studies for three months, and one candidate for six months (in pursuance of a recent regulation of the Council, to which we referred on a former occasion).

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 2:—

Dixon, Francis, Eastwood, Nottingham.
Martland, Edward William, Standish, near Wigan.
Parke, Thomas Henry, Tideswell, Sheffield.
Redmond, John, Grange, Loughgall, Ireland.
Webb, Charles Alfred, 86, Brompton-square.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Dobrashiam, Gabriel Sukias, London Hospital.
Gaylor, Norman Edward Johnson, Guy's Hospital.

BIRTHS.

FOX.—On December 22, at The Grove, Great Baddow, Essex, the wife of Cornelius B. Fox, M.D., Medical Officer of Health for East, Central, and South Essex, of a daughter.

IRONSIDE.—On January 6, at Portobello, near Edinburgh, the wife of Surgeon-Major W. Ironside, M.D., A.M.D., Piershill, of a daughter.

PARSONS.—On January 5, at 78, Kensington-park-road, W., the wife of Sydney Parsons, M.R.C.S. Eng., L.S.A., of a son.

ROPER.—On January 3, at Granville-park, Blackheath, the wife of Arthur Roper, M.R.C.S. Eng., of a son.

SMITH.—On January 1, at London-road, Croydon, the wife of W. H. M. Smith, L.R.C.P., of a son.

SMITH.—On January 5, at Westboro', Wimborne, the wife of Walter Wyke-Smith, F.R.C.S.E., of a son.

WILKINSON.—On January 2, at 7, Elwick-road, Ashford, Kent, the wife of John Cooper Wilkinson, M.R.C.S. Eng., of a son.

WINTLE.—On December 31, at 12, Park-road-villas, Forest-hill, S.E., the wife of Henry Wintle, M.B., of a daughter.

MARRIAGES.

BROWNLOW—BURN.—On December 26, at Burntisland, N.B., Thomas D'Arcy Brownlow, M.D., Staff-Surgeon H.M.S. *Warrior*, to Mary Margaret, youngest daughter of the late H. J. Burn, W.S., Edinburgh.

GOSS—WEBBER.—On January 1, at Sidmouth, Samuel Goss, M.R.C.S. Eng., Southsea, to Annie Elizabeth Webber, only daughter of J. B. P. Webber.

DEATHS.

BEATON, JULIA ANNE, daughter of D. Beaton, M.D., at Ryde, on December 19, aged 19.

BLACK, ROBERT JOHN, M.D., at Donegal House, Green-lanes, Stoke Newington, on January 2, aged 50.

HANDFORD, MARY ANNE, wife of Thomas Handford, M.R.C.S. Eng., of Atherstone, on January 2, aged 58.

MAINWARING, LYDIA CHARLOTTE, wife of J. G. Mainwaring, M.R.C.S. Eng., of Bethnal-green, London, on January 2.

MAPLETON, HENRY, M.D., Inspector-General Army Medical Department, at 1, Pennsylvania-terrace, Exeter, on January 1, aged 64.

REID, FRANCIS, M.D., C.M.G., Inspector of Hospitals, at Rosalie, Beau Bassin, Mauritius, on November 20.

SAXTON, WILLIAM WARING, L.R.C.P. Edin., F.R.C.S.E., formerly of Market Drayton, at 1, Berkeley-gardens, Kensington, W., on January 6.

SMITH, JOHN CECIL GILLIES, fourth son of Robert Smith, M.D., of Durham County Asylum, at Sedgefield, on January 7, in his 13th year.

STILWELL, GEORGE, M.R.C.S. Eng., at Epsom, on January 5, in his 74th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL ROYAL INFIRMARY.—Medical Superintendent. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, or Masters in Surgery of one of the Universities of the United Kingdom, and also possess a registered medical qualification. Applications, with testimonials, to the Secretary, on or before January 23.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Candidates for the office may obtain particulars of the appointment from Francis Baily, Secretary.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified and registered. Further information may be obtained from Dr. Aitken, Medical Superintendent, to whom testimonials must be forwarded not later than February 8.

LIVERPOOL DISPENSARIES.—Two Assistant House-Surgeons. Applications, accompanied by candidates' registered certificate of qualification and testimonials (which will be returned), to the Secretary, 34, Moorfields, Liverpool, on or before January 22.

UNIVERSITY OF LONDON.—Registrarship. Candidates are invited to send in their applications not later than February 1, 1879. Further information may be obtained on application to Thomas Douse, Clerk to the Senate, University of London, Burlington-gardens, W.

WARRINGTON INFIRMARY AND DISPENSARY.—Resident Surgeon-Apothecary. Candidates must produce qualifications similar to those required from candidates for medical appointments under the Local Government Board, together with testimonials relating to professional education and moral character. Applications, with testimonials, stating if married or single, family, etc., to Joseph Davies, Hon. Secretary.

WINDSOR ROYAL INFIRMARY.—House-Surgeon. Applications to the Secretary, on or before January 22.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Crediton Union.—Dr. Henry McClure has resigned the Cheriton Fitzpaine District; area 10,980; population 1759; salary £45 per annum.

Great Yarmouth Parish.—The North District is vacant; area 750; population 15,000; salary £100 per annum. Also the South District; area 700; population 18,000); salary £80 per annum.

APPOINTMENTS.

Ely Union.—Wm. B. Hunter, M.D. and C.M. Edin., to the Littleport District.

Mutford and Lothingland Incorporation.—Edward Bowen, M.R.C.S. Eng., L.R.C.P. Edin., to the Kessingland District.

Wandsworth and Clapham Union.—John B. Neal, L.R.C.P. Edin., L.F.P.S. Glasg., L.S.A. Lond., to the Workhouse and Infirmary.

West Derby Union.—Richard A. Morriah, M.R.C.S. Eng., L.S.A. Lond., to the Garston District.

IPECACUANHA AND EUCALYPTUS IN BENGAL.—Dr. King's report for the year 1877-78 shows that neither of these can be successfully cultivated in the climate of Lower Bengal. The low night-temperature of the cold season is too severe for the ipecacuanha, but a stock of young plants is kept at the cinchona plantation for distribution.—*Indian Med. Gaz.*, December.

ROYAL COLLEGE OF SURGEONS.—The first professional examination for the diploma of membership of the College for the present year was commenced on Monday last, on which occasion, owing to the large number of candidates (viz., 149), it became necessary to utilise the library in addition to the theatre. The following were the questions on Anatomy and Physiology submitted to the candidates, who were required to answer at least four, including one of the first two, out of the six questions:—1. Describe the ossification of a long bone in its entirety. 2. Give an account of the gases contained in the blood, and of the experiments by which their combination with its other elements is ascertained. 3. Describe the structure of the knee-joint, including the bones, cartilages, ligaments, and synovial membrane; and explain its movements. 4. Describe precisely the muscular attachments on the os pubis, and name the nerves supplying each muscle. 5. Enumerate in their order the parts seen in a dissection from skin to bone of the front of the arm, from the level of the insertion of the deltoid to that of the pronator teres. 6. Give the position and relations of the submaxillary gland, trace its duct into the mouth, and state the nature and uses of its secretion.

PETROLEUM IN AFFECTIONS OF THE CHEST.—Dr. Blache states (*Bulletin de Thérapeutique*, December 15) that a refiner of petroleum having been prohibited by a préfet, at the request of some *pharmaciens*, the distribution of petroleum in medicinal does, this led to an inquiry being made as to its alleged utility in affections of the chest. The native petroleum from Pennsylvania and Virginia was that experimented upon first. It is a very safe substance, for even large quantities when drunk by error have only caused a little nausea. In chronic bronchitis, with abundant expectoration, it rapidly diminishes the amount of the secretion and the paroxysms of coughing, and in simple bronchitis rapid amelioriation has been obtained. Its employment in phthisis has been continued for too short a time as yet to allow of any opinion being delivered as to its efficacy, beyond that it diminishes the expectoration, which also loses its purulent character. The petroleum is popularly taken in doses of a teaspoonful before each meal, and after the first day, any nausea, which it may excite in some persons, disappears. M. Gardy, a Paris *pharmacien*, has prepared capsules, each containing twenty-five centigrammes of petroleum, or, as he calls it, *huile de Gabion*, from the name of an ancient petroleum spring, and this Dr. Blache considers as the most favourable mode of administering it.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A. Leather.—We cannot give you the full information asked for, but we fear that the scheme you mention will not have a great amount of support from the profession at large.

Mr. Williams.—You will find the lecture by the late Sir B. C. Brodie on Abscesses of the Perinæum, in the *Medical Times*, vol. xv., page 255.

A Staff Surgeon.—Sir Matthew Tierney died at Brighton in October, 1846. There is no doubt Mr. Gilbert has made something more than a mistake in his onslaught on our metropolitan medical students. The "Bob Sawyer" type is nearly extinct.

E. T.—Why not say with Clown in *Twelfth Night:* "Nay, I am all for waters"; or with Sangrado, "Drink, my children! Health consists in the suppleness and humectation of the organs. Drink water copiously, it is an universal dissolvent: water dissolves all the salts. If the circulation of the blood be slackened, it accelerates it; if it be too rapid, it retards its impetuosity"?

An Old Member and Subscriber.—You will find the affidavits of Messrs. Wakley and Wilson, anent the Hounslow Inquest, in the *Medical Times* of December 12, 1846, pages 211 *et seq.*

The Early Closing Association.—From the annual report of this Association, recently issued, it is gratifying to find that its efforts have been, deservedly, most successful. It is, however, estimated that there are 30,000 shops in London, in which about 100,000 assistants are still employed for twelve, fourteen, and even fifteen hours a day. Much as the Association has done in reducing the daily hours of labour of a vast number of assistants of both sexes, the above figures show the necessity of continued public support to enable the Association adequately to contend with the evil of excessive hours of work in shops.

Dr. Hardwicke as Coroner.—The following resolution has been forwarded to Dr. Hardwicke by Mr. G. Richardson, the chairman of the committee appointed at a public meeting lately held in Clerkenwell—"That this meeting desires to express its approval of Dr. Hardwicke's conduct, in his inquiries as Coroner for Central Middlesex, but more especially in the cases of Nolan, Harris, and Stokes; and they sincerely trust that he may long hold that office, which he has hitherto held to the satisfaction of the public."

Overcrowded Workhouse Day-Wards.—Dr. Brown, the Medical Officer of St. George's Workhouse, has directed the attention of the St. Saviour's Union Board of Guardians to the overcrowded state of the day-wards, in one of which he stated there were between eighty and ninety aged women, who remain there during the whole day, the ward being capable of accommodating about forty. In the women's able-bodied ward, which is partly underground, there were about ninety inmates, including twelve infants in arms. The Medical Officer remarked upon the prejudicial effect on health, especially on that of the infants, by such overcrowding, and it was decided to refer the question to a special committee, to adopt such steps as they deemed necessary to provide for the evil. During the discussion of the subject, the chairman of the Board made an observation which should not escape notice. He said "Dr. Brown was engaged to look after the sick, and not to act as an inspector." We may at least express surprise that such an observation should have emanated from the chair. *A propos* of this overcrowding, we may refer to the action of the Local Government Board a few months since, in sending an inspector round to all the metropolitan unions, urging upon the various boards of guardians the desirability of lessening the out-relief, and of more generally adopting the house test. This arrangement appears to have resulted in filling all the metropolitan workhouses, and the guardians of different unions are sending circulars to other boards, asking if they can take in paupers on the "farming principle."

L.D.S.R.C.S.—For registration as such it is absolutely necessary that the diploma should be submitted to the Registrar. Just now some inconvenience is being occasioned by parties calling on the officials of the College of Surgeons for certificates of holding the qualifications, being unable, from various causes, to produce the diploma itself.

Accidental Poisoning.—Mr. Harcourt MacLeod Busfield, a surgeon, of Boothfold, Newchurch-in-Rossendale, Manchester, died on the 26th ult. under the following distressing circumstances. He had been out of health for some weeks, and on the previous evening (the 27th) he retired to rest, but passed a very restless night. About half-past four both he and his wife got up. He went into the surgery, leaving his wife in the dining-room, and presently returned and exclaimed, "I'm a dead man!" at the same time showing a bottle, the contents of which he said he had drunk. The bottle contained aconite liniment. He requested his wife to send for Dr. Wilson, a neighbouring medical man. In the meantime he drank freely of mustard and water, but he gradually grew worse, and died in about an hour, and before the arrival of a medical man. A bottle containing sherry was afterwards found next to where the bottle of aconite had been taken from, and as they much resemble each other in colour, there is reason to believe that the deceased drank the aconite in mistake for the sherry.

Gipsies' Tents: a Nuisance.—At the Wandsworth Police-court, two gipsies were summoned for causing a nuisance. They had purchased land in Garrett-lane, and erected upon it several tents, some of which were occupied by as many as eight or ten persons. The medical officer of health of the district said a condition of things existed in these tents which ought not to be tolerated in any civilised country, and that the smell from the camps was most offensive. The defendants said they could not live in houses, and had erected the tents to dwell in. An order was made for the removal of the nuisance.

Children and "Death Clubs."—At an inquest held at Wednesbury, lately, on the body of a little girl three hours old, it appeared that the deceased was born at seven o'clock on the night of the 26th ult., and was suddenly seized with illness after birth. The midwife sent to two doctors, but neither of them was at home, and no medical assistance was obtained. The father, in the meantime, hastened to the registrar's office, and had the birth registered, and an hour after birth the child was baptised. At ten o'clock the child died. A witness gave evidence that special steps were taken to have the birth registered, that in case of death the parents could obtain fifty shillings from a "death club." Several of the jurymen remarked that it was becoming a common practice in the neighbourhood for people to look after club money before seeking medical aid, and that it was high time it was put a stop to. The father admitted that his wife had had seven children, several of whom had died shortly after birth. The verdict returned was "Died from exhaustion." The coroner intimated his intention of withholding the necessary certificate to enable the parents to obtain the funeral money from the "death club" until the club officials had communicated with him on the subject.

The Public-Houses Closing Hour in Paris.—In Paris the extension of the public-house closing hour from midnight to 1 a.m., originally granted as a favour during the Exhibition, has now been made permanent, the authorities being satisfied that it does not prejudice morality or public security. Except in a few selected quarters, midnight had been the hour for closing since 1819.

A Pension.—The Finance Committee of the County of Surrey Magistrates report that the Treasury have awarded a pension to Dr. Thomas H. Waterworth, the late Surgeon to the County Gaol, of £35 12s. 6d.

Scurvy: an Official Inquiry.—In consequence of several ships having recently arrived in the Thames with cases of scurvy on board, Dr. Humphreys, Medical Inspector of Emigrants in London to the Board of Trade, has been directed to institute inquiries into the causes of the outbreaks.

Supplying Drink to a Boy.—At Chesterfield a publican has been fined 20s. by the magistrates for supplying drink to a boy eleven years of age, in such quantities as to make him drunk. It may be hoped the licensing magistrates will, at the proper time, take notice of this case.

Jabes.—The "chewing gum," which has recently come into general use in the United States is a material styled "rubber gum." It is from the sap of the sapota tree of South and Central America. The sap, like that of the indiarubber tree, has a milky look. It has long been chewed by the South and Central American Indians, and found useful in allaying thirst. It is tasteless, and is said to last longer than other gums which more quickly dissolve in the mouth. Its consumption is about fifty tons a year.

Chastisements in Schools.—At an inquiry recently held into the death of a little girl, aged ten years, who lived in Bromley-by-Bow, and died on Christmas-day, it appeared the deceased child attended St. Paul's Board School; and, according to her own statement, which was confirmed by the evidence of another little girl, she was struck on the head twelve months ago with a "pointer" by one of the teachers. She was taken to the London Hospital, and was treated at that institution for concussion of the brain for four months. She subsequently lost her eyesight, and lingered until the 26th ult., when she died. The medical testimony was to the effect that death was due to effusion of serum into the ventricles of the brain from natural causes, accelerated by the blow inflicted by the teacher. The jury returned a verdict in accordance with this evidence.

Mortality in the English and German Navies.—The report of the Inspector-General on the health of the English Navy during the year 1877 has been published, almost simultaneously with that of the Surgeon-General of the German Navy for the same period. The death-rate in the former from all causes for last year was 7·05 per 1000, and from disease alone 4·95 per 1000. The death-rate in the latter during the same twelve months was almost exactly identical. The total number of all ranks in the service was 8916. The total number of deaths was fifty-two, of whom forty-four died from disease, six through accidents, and two committed suicide. Again, the general state of health of the men in both navies, as shown by an investigation of the numbers who came upon the sick-list, were sent to hospital, or died, was more satisfactory in 1877 than in 1876.

The Russo-Turkish War.—The following particulars are the result of inquiries made as to the losses sustained by the Russians at the European seat of war. On the whole, 129,471 men lie buried in the Balkan peninsula, and of the 190,950 men sent back to Russia as sick or wounded, 42,950 died. The complete number of the dead is 172,400 men, exclusive of those who succumbed in Asia Minor.

A Competitor.—The result cannot be known for some time yet. The names of the members of all committees at the College of Surgeons are published in the Calendar of that institution, except (for obvious reasons) those of the Jacksonian Committee.

COMMUNICATIONS have been received from—

Mr. J. Astley Bloxam, London; Mr. E. L. Husbey, Oxford; Dr. J. Hughlings-Jackson, London; Mr. J. Chatto, London; Mr. T. M. Stone, London; Mr. William Alexander, Liverpool; Mr. R. W. Parker, London; Mr. D. Colquhoun, London; Mr. B. B. Wheatley, London; Mr. Jonathan Hutchinson, London; Dr. J. Mitchell Bruce, London; Dr. Meymott Tidy, London; Dr. Sansom, London; Dr. Edward Sparks, Mentone; Mr. Shirley Murphy, London; The Registrar-General, Edinburgh; The Registrar of Apothecaries' Hall, London; Mr. A. Leatherr, London; Messrs. A. and F. Pears, London; Dr. Robert Lawson, Edinburgh; The Honorary Secretary of the Harveian Society, London; Dr. J. W. Moore, Dublin; Mr. C. J. Cullingworth, Manchester; Dr. Allen Sturge, London; The Secretary of the Royal Institution, London; Dr. R. Druitt, London; Mr. C. F. Hawkins, London; The Registrar of the University of Edinburgh.

BOOKS AND PAMPHLETS RECEIVED—

J. Matthews Duncan, A.M., M.D., Papers on the Female Perineum—Thomas Bryant, F.R.C.S., A Manual for the Practice of Surgery; A Handbook of Nursing for Family and General Use—Rev. Alexander Wallace, D.D., Our Poll—B. W. Richardson, M.D., Dialogues on Drink—Alfred Fournier, La Syphilis du Cerveau—T. Pridgin Teale, M.A., Dangers to Health: a Pictorial Guide to Domestic Sanitary Defects—Middlesex Hospital Reports for 1876—Morell Mackenzie, M.D., Essays on Diphtheria—Thomas Dunman, A Glossary of Biological, Anatomical, and Physiological Terms—St. Bartholomew's Hospital Reports, vol. xiv.—Report of the Chemical Analyser to Government, Bombay, for the Year 1877-78—The Family Physician: a Manual of Domestic Medicine—E. Marlett Boddy, F.R.C.S., F.S.S., Hydropathy; or, the Practical Use of Cold Water—Street's Indian and Colonial Mercantile Directory for 1878-9.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Edinburgh Medical Journal—Social Notes—Journal des Sciences Médicales de Lille—Obstetrical Journal—El Siglo Médico—Journal of the Scottish Meteorological Society—Indian Medical Gazette—Christian Era—Gazeta Medica da Bahia—Revue Médicale Française et Etrangère—Birmingham Medical Review—Quarterly Journal of Inebriety—Analyst—Students' Journal and Hospital Gazette—Transactions of the Odontological Society of Great Britain—The Practitioner.

APPOINTMENTS FOR THE WEEK.

January 11. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

13. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. Althaus, "Contributions to the Pathology of Peripheral Nerve Diseases."

14. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. W. B. Dalby, "On Disease of the Mastoid Bone." Dr. E. I. Sparks and Dr. Mitchell Bruce, "On the Effect of Diet, Rest, and Exercise on Chronic Nephritis."

15. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

16. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Harveian Society, 8½ p.m. Mr. Osman Vincent, "On Talipes Varus."

Royal Institution, 3 p.m. Mr. J. H. Gordon, "On Electric Induction."

17. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Prof. Tyndall, "On the Electric Light."

VITAL STATISTICS OF LONDON.

Week ending Saturday, Jan. 4, 1879.

BIRTHS.

Births of Boys, 1471; Girls, 1428; Total, 2899.
Average of 10 corresponding years 1869-78, 2536·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	894	1006	1900
Average of the ten years 1869-78	829·8	839·3	1669·1
Average corrected to increased population ...	...	...	1786
Deaths of people aged 80 and upwards ...	...	...	107

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	3	3	6	1	11	...	3	1	3
North ...	751729	...	5	6	4	13	...	10	3	1
Central ...	334369	...	2	2	1	3	...	2	...	1
East	639111	...	11	6	1	21	...	5	1	1
South	967692	10	13	9	9	17	...	10	2	3
Total	3254260	13	34	29	16	65	...	30	7	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·498 in.
Mean temperature	41·4°
Highest point of thermometer	55·4°
Lowest point of thermometer	26·3°
Mean dew-point temperature	37·2°
General direction of wind	Variable.
Whole amount of rain in the week	2·03 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 4, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Jan. 4.	Deaths Registered during the week ending Jan. 4.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2899	1900	55·4	28·3	41·4	5·22	2·03	5·16
Brighton	105608	44·9	62	40	51·0	31·0	42·8	6·00	2·08	5·28
Portsmouth ...	131821	29·4	80	50	...	...	...	...	...	...
Norwich	85222	11·4	61	59	54·0	23·0	39·3	4·06	0·64	1·63
Plymouth	74293	53·3	44	51	53·5	33·5	45·7	7·61	3·38	8·61
Bristol	209947	47·2	172	133	53·1	23·0	40·2	4·55	2·76	7·01
Wolverhampton ...	75100	22·1	60	53	51·5	19·9	35·8	2·12	0·52	1·32
Birmingham ...	388884	46·3	403	224	...	...	...	...	...	...
Leicester	125622	39·3	114	65	52·8	22·0	37·1	2·84	0·50	1·27
Nottingham ...	169396	17·0	131	87	54·7	15·0	36·6	2·56	0·64	1·63
Liverpool	538338	103·3	431	339	52·1	28·5	39·0	3·89	0·35	0·89
Manchester ...	361819	84·3	262	254	...	...	...	...	...	...
Salford	177849	34·4	162	114	...	...	...	...	...	...
Oldham	111318	23·9	78	54	...	...	...	...	...	...
Bradford	191046	26·5	136	103	51·0	24·0	37·5	3·06	1·16	2·95
Leeds	311860	14·5	238	167	51·0	24·0	38·0	3·33	0·63	1·60
Sheffield	297138	15·1	224	148	52·0	23·0	38·8	3·67	0·53	1·35
Hull	146347	40·3	134	81	51·0	16·0	35·4	1·89	0·31	0·79
Sunderland ...	114575	41·4	83	60	49·0	28·0	37·9	3·28	0·40	1·02
Newcastle-on-Tyne	146948	27·4	116	74	...	...	...	...	...	...
Edinburgh	228075	53·9	129	109	47·8	22·5	34·4	1·33	...	...
Glasgow	578156	95·8	432	327	49·2	26·0	36·4	2·44	0·79	2·01
Dublin	314666	31·3	204	306	53·2	22·2	37·0	2·78	0·35	0·89
Total of 23 Towns in United Kingdom	8502896	38·6	6653	4798	55·4	15·0	38·4	3·55	1·07	2·73

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·49 in. The highest reading was 29·95 in. on Thursday afternoon, and the lowest 29·16 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

VII.

CLINICAL LECTURE
ON HEPATIC DISEASE IN GYNÆCOLOGY AND OBSTETRICS.

BEING THE SEVENTH OF A COURSE OF LECTURES DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery to the Hospital.

A VERY striking case, recently in Dr. Southey's ward "Faith," attracts me to this subject of lecture. In gynæcology and, indeed, in all departments of medicine, you will find a great deal of vague talk about the influence of the liver in producing or aggravating disease. This talk increases with the imperfection of the works in which it occurs. If you look to the best books on gynæcology and on diseases of the liver, you will see the least of this kind of remark; and it belongs rather to medical lore than to medical science. The best authors are content to leave it more to tradition than to write it down solemnly in books. I am not disposed at all to deride this kind of medical lore, neither am I disposed to take up your time with it on the present occasion, because I have much more definite information to give you upon a very important subject.

In women the only specialty I have to call attention to, with regard to the anatomical condition of the liver, is that it is lower down; in consequence of the peculiar shape of the chest, the liver lies lower in the right hypochondriac region, or at least produces dulness lower down, than in man. In examining the liver in women you have to take special care not to be misled by the results of tight lacing; the displacement of the liver—indeed, the deformity of the liver—sometimes produced by this is so great as to be very misleading were you not aware of its occurrence. Amenorrhœa has been described as being produced by fatty liver. I can neither confirm nor dispute this, which, so far as I know, is a mere assertion; but I must add that I do not believe it. Fatty liver very frequently occurs in phthisical women, and in such you know that, for other reasons, amenorrhœa is common. That is a very different thing from saying the amenorrhœa is the consequence of this special lesion, fatty liver. Hyperæmia, or congestion of the liver, is said to be produced by suppression of the menses and by the menopause. I am not aware of anything that confirms this statement. Portal obstruction, however, such as occurs in cirrhosis of the liver, might naturally be expected to produce congestion of the womb as well as of the other pelvic organs, and menorrhagia; and of this I have seen undoubted examples. One occurred not very long ago in "Martha." The woman was thirty-one years of age; she had borne eight children, and had had three miscarriages, the last of which occurred a year before her admission into "Martha." Since that last miscarriage she became very ill with chronic hepatitis. Of the chronic hepatitis she was quite unaware, but, simultaneously with the occurrence of the chronic hepatitis, her menses became more profuse and long-continued; and it was on account of this condition that she came to "Martha." We examined carefully the pelvic organs, and could find there no disease to account for the menorrhagia; and, being satisfied that her chief disease was chronic hepatitis, and that the chronic hepatitis was the cause of the menorrhagia, we had her transferred to Dr. Church's care. There I believe she soon died of the disease of the liver. Menorrhagia here was a distinct result of the hepatic affection.

I now come to consider the influence of hepatic disease in pregnancy. Here you will find remarks very common about the pressure of the gravid uterus upon the liver, disordering its functions and leading to disease of the organ. Even in good authors, statements like these occur. Similar statements probably you are familiar with in connexion with the uræmia of pregnancy and parturition. I ask you, in the meantime, not to believe any such statements, neither with regard to the liver nor with regard to the kidney; and I cannot omit here making a remark which is of very great importance in medical philosophy. You would scarcely believe, yet it is quite true, that men state, as if it were a fact, that there is great pressure upon the liver and upon the kidney in pregnancy, and proceed to reason upon this, not only to found theories of disease upon it, but also plans of treatment, and all the time they have never given even the slightest good reason for believing that there is any increase of pressure. Surely, the first thing in such circumstances is to demonstrate the increase of pressure; but not one of the authors I have alluded to ever seems to dream that that is the first thing. You must first prove that there is pressure before you proceed to found upon it as the cause of disease and as the basis of a line of treatment. There is no evidence, but rather to the contrary, that there is any increase of pressure upon the liver or kidney in pregnancy. Indeed, if you turn to the clinical view of the matter, and regard cases of large fibrous tumours and of large ovarian dropsies, you will see nothing to confirm the belief that pressure has anything to do with producing disease of the liver or of the kidneys, for, in those cases, you might expect far greater pressure than in pregnancy, in consequence of the frequently far greater size of the tumours. In pregnancy, diseased liver, however, is a matter of immense importance. The liver has been, at least once, observed to be folded upwards upon itself in a case of tight-lace liver, the pushing up of the uterus producing this displacement, and fatal jaundice in consequence. Rupture of the gall-bladder has been observed in labour. After delivery, hæmorrhagic softening of the liver has been observed.

But now I come to the chief topic of the lecture, and I will begin with offering some observations with regard to one of the most important diseases of pregnancy, namely, persistent and uncontrollable vomiting. Of the vomiting of pregnancy there are at least two kinds. There is what may be called the common kind, which, when severe, is almost certainly the result of morbid innervation. Whether the sickness and vomiting of pregnancy is a reflected sensation, or a reflectey motion, or the result of a reflected secretion, it is a consed quence of morbid innervation. It is frequently very grievous, and perhaps is sometimes even fatal. This kind of vomiting in pregnancy is arrested when the fœtus dies. It is arrested certainly by abortion, miscarriage, or delivery at full time. It is not accompanied by any symptoms of grave disorder, except such as arise from deficient nutrition. But there is another kind of vomiting in pregnancy, our knowledge of which is extremely imperfect, and upon which some remarks are called for. There are cases of vomiting in pregnancy, described by many authors, which prove fatal, sometimes suddenly and unexpectedly, without any apparent cause, or without any suspicion of the cause at the time the histories of such grave cases were written. Along with such cases have to be included some similar cases of sudden and unexpected death after delivery. Our knowledge of the physiology of parenchymatous degeneration of the great glands seems to throw light upon this fatal or extremely dangerous form of vomiting in pregnancy,—to show that the vomiting in such cases is something more than a morbid innervation, that it is a symptom of a disease. The case that I am about to read to you I am quite sure some years ago I should have regarded as one of vomiting in pregnancy proving fatal. I should not have known how to go any further. But you will find, as I proceed, that I have dealt with that case in an entirely different manner, deriving my knowledge from recent researches into the nature of a disease called icterus gravis, or what used to be called yellow atrophy of the liver.

It has recently been discovered by eminent physiologists, that, in health, the earliest stage of this disease is produced; that is, that the great glands of the body (especially the liver) undergo in healthy pregnancy and in healthy suckling a certain degree of parenchymatous degeneration. This is the first stage of the grave disease which I have named. Like the watery blood of pregnant women, this parenchymatous degeneration is not called a disease, because it is the normal condition. If it were found in a woman not pregnant or suckling, it might then be called a disease; but as it is believed to be the regular normal condition, we do not call it a disease. It is in this respect in the same position as the hydræmia of pregnant women. No doubt this parenchymatous degeneration is, so far as our short-sightedness guides us, an extremely unfortunate thing for women, leading them, as it were, upon the ice, and making them liable to dangerous diseases. The condition of the blood is probably a chief part of the cause of the proneness of women to disease of the

kidney and uræmia; the condition of the glands probably being the cause of their proneness to further dangerous stages of parenchymatous degeneration, chiefly of the liver, but also of the kidneys and other parts. Now, if you look into the histories of fatal cases of vomiting in pregnancy, and fatal cases of a similar kind occurring just after pregnancy, in the puerperal state, you will find slight jaundice often mentioned; you will find, in many of them, hæmorrhages are mentioned as occurring; and a condition of lethargy, almost of coma, is described; and these statements seem to me to make it almost certain that the conditions causing death were the result of the aggravation of this physiological condition of granular degeneration that I have been referring to. In order that you may further see how liable observers were to fall into this error, I must tell you that cases of this disease occur without jaundice, or with very little, and without hæmorrhage and without convulsions—that is, without any of the ordinary grave symptoms of the fully developed disease. I am presently to describe a case. This concludes what I have to say about the dangerous and fatal cases of vomiting in pregnancy, and about the dangerous and fatal cases of a similar kind occurring in the puerperal state.

But before I come to the special case of to-day's lecture, I must say a few words upon jaundice occurring in pregnancy. Ordinary jaundice rarely occurs in pregnancy—jaundice from obstruction, or from catarrh of the stomach and duodenum. I have seen pregnancy in a woman who had a chronic jaundice, and I have seen jaundice come on during pregnancy. In regard to this kind of jaundice there is very little to be said. You cannot mistake this disease. The name of the disease implies all that is necessary for its diagnosis. Anybody can tell when a woman is jaundiced. It is not a mere tinting, but it is, as the disease you are all familiar with, quite easily recognised. This disease occurring in a pregnant woman does not make her very ill—at least, not more than it would if she were not pregnant; but the woman having it runs considerable risk of abortion or miscarriage. And, when this occurs, the abortion may be directly the result of the jaundice, the child being born alive, and, if the disease has not lasted long, untinted by the jaundice; or the jaundice may kill the fœtus, and the abortion or miscarriage in that case may be a secondary result of the jaundice—the result of the death of the fœtus not of the jaundice directly,—and then the fœtus and all the membranes are deeply tinted with the colouring matter of the bile. Now, in a case of this kind you may have to consider the importance of bringing on premature labour; but this should only be done if the disease is intense and long-continued, and if the child is alive. No doubt it is also worthy of your consideration whether you should not induce it in some severe cases, from the fear of the supervention of the icterus gravis as a consequence of the ordinary jaundice. It is impossible to lay down rules with regard to this last point, because cases have not yet sufficiently accumulated to form a basis of experience for such rules. I must therefore leave it in this undecided form. Icterus gravis, or the yellow atrophy of the liver, is a rare disease, and has only been well recognised within a generation or so, and I have no doubt that our increasing knowledge, of which I have tried to give you a sketch, will lead to its being found to be not so rare a disease as has hitherto been supposed. Especially will this arise from what is now known, that the essence of the disease may be there without the presence of all or even of any of its grand indications; and its grand indications are convulsions, jaundice, and hæmorrhage. If uræmia from disease of the kidney occurs once in about every 500 women that are in advanced pregnancy or parturient, this disease certainly does not occur once in 10,000. The disease is called yellow atrophy of the liver. There may be no atrophy of the liver. The disease may prove fatal in an early stage, as in the case I shall read to you presently. The disease has been called cholæmic eclampsia, just as the corresponding disease of the kidneys is sometimes called uræmic eclampsia, from the frequency of the convulsions. But there may be no convulsions in either disease; and in the case I am to read to you there were no convulsions. Hæmorrhage from the stomach or bowels or womb, or into the tissues, is a very characteristic phenomenon of the disease, and yet there may be none of it. In the case I am to read there were no hæmorrhages. Lastly, the disease may be without jaundice; and generally, as in the case before us, the jaundice is slight. Here the jaundice got less as the woman got worse, instead of getting greater. The jaundice is not like that which you know familiarly as the common jaundice; it is a much slighter condition of tinting, and, in the cases of icterus gravis I have seen, never has proceeded to be a deep yellow. The disease should not be called jaundice or icterus at all; it is a disease which affects the whole body, and whose best known manifestations are in the liver. There you have not only the parenchymatous degeneration of the hepatic cells, which I told you was a physiological condition in pregnancy and suckling, but further steps of degeneration, which this is not the place to describe, going on to complete fatty destruction of the hepatic cells. This, indeed, should be called, if we only knew what the poison was, a case of poisoning, perhaps blood-poisoning. One German author ascribes the disease to poison from decomposition of the fœtus, but for this view he advances no argument except the analogy of other poisons. Believing it to be a poison, he merely fixes upon this one, apparently without any reason. Now, as I go on I shall, I think, satisfy you that it is probable that instead of the dead and macerating fœtus poisoning the mother, it is the mother's condition that poisons the child. A great author has also suggested that the disease is essentially uræmic; and, no doubt, the urea in the urine is very much diminished in this disease; but the disease is not at all like the ordinary uræmic eclampsia. Yet, it is true, parenchymatous degeneration of the kidney is found along and corresponding with parenchymatous degeneration of the liver.

Here I would mention to you an interesting set of facts in connexion with this subject. If you read over cases of heart disease, especially mitral regurgitation, you will find that in them women are very liable to miscarry, and miscarriage is in them almost certainly a direct result of the disease. If there is a poison in the woman's blood, in this case it is probably a poison from imperfect aëration of the blood, and that induces the miscarriage. Of this you have sufficient proof in the fact that the children are almost always born fresh, if not alive. The disease has brought on miscarriage; it has not killed the child. The condition of the blood has stimulated the uterus to action directly. In the comparatively common disease of the kidneys observed in pregnant women with albuminuria, you have an intermediate set of results between those of heart disease and those of icterus gravis. In uræmic patients, miscarriage is not very common. There does not seem to be a great tendency to it. There is a tendency to it, but not great; and so far as I can form an impression from extensive experience and reading, the child may be alive. It is also frequently dead, and we know that in this disease the child may be killed by the urinæmia. The urinæmia that is part of the cause of the woman's disease is also found in the child. When you come to icterus gravis, however, you will find a different set of results. Not only is the child almost always born dead, but it is almost always born decomposed, and there seems to be no tendency to abortion or miscarriage directly. The uterus is not prone to throw off its contents; if it does throw off its contents, it is as a secondary consequence of the death of the child; and the death of the child here has been shown to be the result, or at least to be connected with the presence, of poisoning of its blood by the biliary acids which have been discovered in the fœtal blood as the cause of its death. But there seems to be in the icterus gravis rather a tendency to avoid miscarriage. The fœtus is in most cases described as being macerated, sometimes putrid; and instead of abortion being induced, we have missed abortion—a subject on which I lectured the other day. The case I am to narrate to you is a case in which the womb, as it were, refused to throw off its contents, instead of, as in heart disease, being stimulated to throw off its contents. Here there seems to have been the opposite tendency, and the dead and decomposing fœtus remained in it long after it would do so in ordinary circumstances.

Now, I dare say you will be prepared for my telling you that there is little to be said about the treatment of this very important disease—emetics, purgatives, and diuretics have been tried, besides other medicines. The only thing I can suggest in the way of treatment is that the uterus should be emptied—this is with a view to saving the mother. You may say, "Is there any chance of saving the mother in

disease like this?" The impression abroad in the profession is that this is a necessarily fatal disease; but there are two reasons for hope: the first is, that we know that the physiological condition, the early stage of this disease, does no harm to a woman; the second is, that there is considerable probability that cases are cured by the death and expulsion of the fœtus, whether it happens spontaneously or is brought about artificially; and this appears to have occurred in the case I have to read to you. So far as the history can indicate, we have reason to believe that this woman suffered from this same disease in her first pregnancy that proved fatal in her second; and probably some of the cases of dangerous vomiting that have been cured by abortion have been in the same category. The present case did not occur under my care, but under the care of Dr. Southey, who called me to see it in "Faith," and to him I must express my gratitude for the opportunity of observing and assisting so interesting a patient.

E. C., aged thirty-four; said to be of temperate habits; was married about a year ago. Three months after marriage she had a miscarriage—after, it was supposed, the second month of pregnancy. At this time her condition was described as resembling that at the time of her admission to "Faith" ward, only the jaundice was believed to be greater. Her present illness began about five weeks before admission (December 2), with vomiting and headache, of which the former has continued ever since. She has kept her bed for three or four weeks. The jaundice is said to be deepened in colour. She has had wandering delirium, especially at night. On admission is in a wandering, dreamy state, and says she has no pain; is generally, but only slightly, jaundiced. Tongue moist, not furred; breath offensive. No itching, nor yellow vision. Pulse 108; respirations 12; temperature 98·6°. Fulness and supra-pubic dulness in the hypogastrium, where there is also slight tenderness. Does not permit a sufficient vaginal examination. Hepatic dulness normal; splenic dulness normal. Urine dark-coloured, bile-tinted; specific gravity 1012; turbid, acid, albuminous (one-fifth); contains casts, epithelial and blood cells. Takes milk and beef-tea, but vomits almost everything. December 4: To have a borax wash for the mouth; the bowels to be opened by saline draught. 5th: Hiccough occasionally. 6th: A dark, lumpy motion of bowels. 7th: Headache. 8th: Has slept well, after taking ten grains of chloral. 9th: To be fed per rectum. 10th: Jaundice diminished; says she feels better. Pulse 86; temperature 97·4°. 11th: Urine one pint and a half in twenty-four hours, albumen one-eighth; hiccough. 18th: Pulse 128; respirations 18; temperature 97°. Purple discoloration of inner sides of thighs. 19th: Tongue furred. Is more drowsy and wandering; vomits her food mixed with bile. Only a trace of albumen in the urine, which contains crystals of leucine. Urea about sixteen grammes in twenty-four hours. 21st: The liver dulness slightly diminished; jaundice less; quite rational when refusing to permit a vaginal examination; objects to induction of abortion. 23rd: Tangle-tent introduced into cervix uteri; urine runs away in bed; tent removed after sixteen hours. 24th: Probe passed into the uterus, and a large tangle-tent placed in the cervix, with a sponge in the vagina; ergotine to be injected subcutaneously. Died in the afternoon. Post-mortem, forty-three hours after death: The surface of the uterus, which is of about the size of a cricket-ball, is congested, and so are the neighbouring coils of intestine. The liver small, weighing 2 lbs. 2 oz.; very soft and flabby to the touch; its surface partly green (especially round the edges), partly brown, with the lobules very distinctly marked; no evidence of congestion. Gall-bladder contains healthy-looking bile. Liver on section yields an emphysematous feeling; colour uniform, greenish-brown at first, but becoming darker; no trace of lobules to be seen; highly emphysematous (not putrid), its section resembling that of highly aërated bread. Spleen very dark in colour and emphysematous. Kidneys flabby, with large air-blebs under the capsule and air-vesicles on section; structure very indistinct, but presents evidence of congestion of cortex and bases of pyramids. The cavity of the uterus contains air and shreds of membrane, and a much decomposed fœtus of about six weeks. (She was held as being three months pregnant.) Placenta adherent, about two inches in diameter. Contents of bowels stained with bile. Stomach congested and presenting internally numerous air-vesicles. Left common iliac vein contains air with fluid blood.

These are only some of the details of this very important case. The microscopical details I have omitted altogether. It only remains for me now to offer a few remarks about the diagnosis of this disease from uræmia. This disease is comparatively a chronic one, occurring in pregnancy. Uræmia, or the disease of the kidneys connected with the uræmia, is generally an acute disease, running a rapid course and occurring most frequently during parturition. In this disease you have delirium, muttering, and lethargy rather than coma—conditions which are very different from the silence and deep comatose condition of a woman suffering from uræmic eclampsia, between the fits. In this woman, and in cases of this kind, jactitation and restlessness are described. The reverse is the case in the coma of uræmia, and in our patient at the worst there was a possibility of rousing to clear intelligence for a few minutes, which is not observed in uræmia. In this disease you may, as in her case, have almost constant vomiting; whether it is accompanied with sickness or not I am unable to say, but there was in this woman, even when she was not vomiting, the constant or very frequent going on of the efforts of vomiting. This is not observed in uræmia: violent vomiting for a time is not uncommon in uræmic cases, but it is only for a time; constant vomiting is not observed. In this disease there was observed great duskiness of the skin, and a peculiarly injected condition of the venous capillaries in the thighs. Now, in the deep coma of uræmic eclampsia you have simple cyanosis of varying degree, sometimes very intense; but you have not the duskiness and local blueness I have mentioned as occurring in this disease. There are a great many other distinctions between the two diseases founded upon examination of the discharges from the body, especially upon the examination of the urine, and the two diseases are quite easily distinguished post-mortem. I have made these remarks upon the distinction of the two diseases because some authors have regarded the eclampsia and coma in both as the same; and, indeed, as I have already told you, at least one great author describes the coma and eclampsia as owning the same cause. The clinical history of the diseases is very distinct, and shows no close alliance between them at all. I must warn you against supposing that anything I have said in regard to icterus gravis is conclusive. The disease is very rare, and has not yet come to that degree of distinctness of recognition that enables a lecturer to speak with precision and dogmatically; but I felt quite sure that the subject was of such intense importance as to be well worthy of the time I have given to it.

LECTURE ON
THE VARIETIES OF HYSTERO-EPILEPTIC ATTACKS.

DELIVERED AT THE SALPÊTRIÈRE

By PROFESSOR CHARCOT.

Authors distinguish two kinds of hystero-epilepsy, viz. (1) cases in which the hysterical and the epileptic attacks occur separately, never becoming intermingled; (2) cases where the two varieties of attack run into one another, or hystero-epilepsy with mixed attacks. In the present lecture the latter variety only will be described. M. Charcot believes that in this variety we have simply to deal with hysteria in its gravest developments, and that the apparent addition of certain epileptic symptoms to the more usually recognised phenomena of hysteria must not be taken as an indication of the presence of true epilepsy, which is in reality only simulated by the hysterical attack. Such attacks he proposes to designate by the title "hysteria major." Contrary to the generally received opinion that the phenomena of severe hysterical attacks are too confused to admit of methodical description, M. Charcot believes that he has shown that they follow definite laws. Many hysterical attacks appear to run a very similar course; and according as fits conform to this common type, or depart from it, M. Charcot proposes to divide them into complete, abortive, and abnormal attacks. A typical attack, according to him, is composed of four distinct periods, and is preceded by certain prodromata. For a few days before the fit the patient suffers from malaise, loss of appetite, perhaps with vomiting. She becomes taciturn, melancholy; or she may, on the

other hand, become excited, requiring careful supervision. Already existing hemianæsthesia becomes more marked, and sometimes the loss of feeling extends to the opposite side. Where it has previously yielded to metallic applications, it ceases to do so. The patient has hallucinations, most frequently seeing animals, such as cats, rats, snakes, etc. The sensitive area so often found in these patients, pressure upon which will at any time produce a fit, becomes yet more irritable, and a light touch is sufficient to bring on a convulsion. Cramps, tremors limited perhaps to one limb, or sudden jerkings of the whole body, with or without attacks of giddiness, are met with in some cases.

After these have lasted a varying time, the hysterical aura comes on. As it occurs in most cases, it may be thus described:—There is pain in the ovarian region, which passes up to the epigastrium; this is followed by palpitation of the heart, globus hystericus, singing in the ear, hammer-like sensations in the temporal regions, and loss of sight; after which the patient loses consciousness, and the *first* or *epileptoid* period of the fit begins.

This so closely resembles a true epileptic fit that it might easily be mistaken for epilepsy. It begins with tonic convulsions, which rapidly become clonic, and these in their turn give place to stertor. Two facts, however, prove beyond question that we are here only dealing with the semblance of epilepsy:—(1) The fit can be stopped with more or less rapidity by ovarian compression, at whatever period of the attack it may be applied; (2) the same result can be obtained by the use of electrical currents, or by strong friction upon the above-mentioned sensitive zone. None of these means produce the slightest result in the case of a real epileptic fit.

The second stage of the attack in hysteria major is that of contortion and of active movement. The contortions consist of curious attitudes, following no law, and having no apparent relationship to one another. A great variety of such contortions are met with, that most commonly seen being the well-known position of opisthotonos, in which the back is arched and the body rests on the head and the heels alone. The "active movements" most frequently consist of rapid and extensive movements of the whole body or of the limbs only. The most frequent of such movements is one in which the patient sits up in bed, lowering the head until it is between the knees. She then throws herself backwards with great force, plunging the head into the pillow. The movement is repeated perhaps twenty or more times in rapid succession, and is often preceded or interrupted by a piercing scream. In other cases these movements are completely wanting in method; the patient appears to struggle against some imaginary being, or strives to free herself from the bonds which keep her down. She screams, and is sometimes seized with a kind of passion, in which she strikes herself, bites her own flesh, or tears out her hair.

In the third period of the attack, hallucinations constitute the main feature. The patient herself takes part in what she seems to see, and by watching her expressive and animated gestures, and listening to the half-completed sentences which escape her, it is easy to follow the details of the scenes through which she seems to herself to be passing, and in which she appears to take a leading part. The hallucinations are, as a rule, either of a gay or of a melancholy order. If gay, the patient believes herself, for instance, transported to a magnificent garden, where the flowers are generally *red*, and the inhabitants dressed in *red*. In hallucinations of a melancholy nature the patient sees houses on fire, battles, murders, etc.; and almost always red blood forms a prominent feature of the scene.

In the final period of the attack the patient returns to the real world. She recognises the persons around her; but she remains for a longer or shorter period in a state of partial delirium, most often of a melancholy order. She sees rats, black cats, crows, etc.; which objects nearly always present themselves on the side of the hemianæsthesia, and frighten the patient very much. Sometimes widespread and very painful muscular contractions are met with, which generally disappear with great rapidity; or localised contractions may occur, which are not painful, and which may persist for a long time.

The mean duration of an attack as thus described is a quarter of an hour; but it may be repeated many times at short intervals, constituting a kind of *état-de-mal* analogous to the epileptic *état-de-mal* or status epilepticus, and which may be prolonged for twenty-four hours or more. The points of distinction between the hysterical and the epileptic *états-de-mal* are as follows:—In the latter condition there is always very marked elevation of temperature, which is never present in the former. The epileptic is never influenced by ovarian compression, by irritation of the sensitive zone, or by electrical currents. It is scarcely necessary to repeat that all these means exert a great influence on the course of the hysterical condition.

It must be borne in mind that the convulsive attack of hysteria major, as it has just been described, is not peculiar to patients of the Salpétrière. It has long been known that imitation has considerable influence in determining the form which a hysterical attack may assume. But this is not the case in the present instance—at any rate, so far as the principal features of the seizure are concerned; for they are met with without noteworthy modification in the case of patients who are treated at their own homes, where the possibility of imitation is entirely excluded. Descriptions of attacks of very similar nature are met with in foreign writings—as, for instance, in those of Dr. Inglis, Assistant Medical Officer at the Edinburgh Asylum, who has recently published a series of observations closely allied to the description given above. Dr. Leidesdork, of Vienna, has also described cases of the same kind.

The study of former convulsive epidemics, moreover, shows us that hystero-epilepsy has not changed in its essential characteristics as time has gone on. Epileptiform convulsions appear to have been rarely absent in such cases, but the attention of the authors who described these epidemics has usually been concentrated upon the second period of the fit—viz., that of contortions; foremost among which has been the opisthotonic arc. The third period described above as occurring in a typical fit—the period of hallucinations—has usually presented itself in these epidemics under the form of ecstasy, or, as in the case of the "*convulsionnaires*" of St. Médard, as a religious or prophetic delirium.

Of more immediate interest are the descriptions given by classical authors of the attacks of ordinary hysteria. By a comparison of these with the account of a typical fit given above it can be easily shown that a separation of the two conditions is impossible, and that ordinary hystoria or "hysteria mitior" can only be considered as an undeveloped form of hysteria major or hystero-epilepsy. In proof of this it will only be necessary to quote certain passages from the works of MM. Briquet and Bermitz. The following passage, which occurs in the middle of the description given by M. Briquet of a hysterical fit, manifestly refers to the epileptiform convulsions of the first period:—

"The face swells, the jaws are tightly clenched so as to produce grinding or chattering of the teeth, the neck swells, the muscles of the neck and those of the chest contract spasmodically, the thoracic walls either remain motionless with their muscles contracted threatening asphyxia (tonic stage), or they move convulsively and rapidly (clonic stage). The muscles of the abdominal walls are affected in a similar way."

Bermitz is even more explicit. He says:—

"At the moment the hysterical cry is uttered, the suffocation appears at its maximum; there is a kind of general tonic spasm, a rigidity of the whole body, sometimes tetanic in its severity; the face is dusky and injected, the neck swollen, the carotids beat with violence, the jugular veins are gorged with blood, the abdomen is slightly distended, and there is marked oppression as though asphyxia were impending. As a rule, the period just described is of short duration only, the convulsions following immediately on the loss of consciousness."

Who does not recognise in this account at any rate a suggestion of the epileptiform period?

The second period constitutes the principal part of the common hysterical attack; and this is described at great length by these authors. The following is the description given by Briquet:—

"Most frequently, the patients throw themselves about, sometimes as though they wished to escape from assault, sometimes as though they struggled against restraint; in some cases the superior and inferior members move in all directions, and flexion, extension, rotation, adduction, and abduction succeed one another with the greatest rapidity; in others the body moves like a worm; or after being doubled up it is suddenly extended at full length. The head moves

forwards, backwards, or to one side; the hands violently clasp the neck as though to tear away some body which causes distress; or they seize the epigastrium as though to tear it, or strike it with closed fists. Sometimes the patient tries to tear her hair out, or to drag the flesh from her face like a mad woman. The muscular power exhibited is so great, that it is with difficulty that several vigorous persons are together able to restrain a slight young girl, who at these times is able to bend or to break the iron bars of a bedstead."

Bermitz has also given a description of these attacks, which closely resembles that of M. Briquet just quoted.

The third period is no less clearly indicated in the accounts given by these authors, and M. Bermitz has given to the dramatic attitudes, so often assumed by patients in the stage of hallucination, a name closely resembling that made use of by M. Charcot; for, whereas the latter has made use of the expression "*attitudes passionnelles*," to express this condition, the former applies the term "*expressions passionnées*" to the movements executed by the patient during the attack. He says:—

"At the moment, when, after having persisted for a certain length of time, the convulsive movements have lost their energy, and when the face presents only a slight degree of turgescence, a new phase sets in, in the case of a certain number of hysterical people. The face, hitherto expressionless as in sleep, lights up with very varied expression; the eyes, which in the earlier stages of the attack were closed, are now opened, and the eyelids may be rapidly winked, or the eyeballs perhaps affected with nystagmus. In some cases a variety of emotional states are gone through, from terror, which usually ushers in the scene, to anger, and thence to delight."

The account given by M. Briquet of the *attitudes passionnées* is as definite as that given by M. Bermitz.

The delirium of the fourth stage has not escaped the careful observation of these observers. M. Bermitz thus expresses himself upon this point:—

"At the moment when this expression vanishes (the *expression passionnées* of the preceding period), the eyes moisten, and soon tears flow in abundance, accompanied by a storm of sobbing in which the patient completely recovers consciousness. In some patients, instead of a flow of tears, an attack of convulsive laughter sets in; and in others again, an attack of half-sensible delirium, in which they narrate in an incoherent and sometimes unintelligible manner some occurrence which had attracted their attention; or they involuntarily give utterance to indiscreet avowals which may be very compromising for themselves or for others."

Nothing, then, is missing in these descriptions, and when we think that the authors whom we have quoted had only seen simple hysteria—hysteria mitior—this constitutes a powerful argument in favour of the opinion expressed by M. Charcot, that hystero-epilepsy is only the most intense form of hysteria. Moreover, it argues in favour of the excellence of the method adopted by him, of studying the graver types of the disease before the abortive and milder forms; for it is incontestable that the description of the common hysterical attack is wonderfully cleared up when it is considered in the light of the knowledge gained by the study of hysteria major.

We now come naturally to the consideration of the abortive forms or varieties of the hystero-epileptic attacks. Of these there are two principal varieties:—

1st. The variety in which there is an extension or predominance of one period at the expense of the others, which are either weakened or extinguished. Thus we see the *epileptoid attack*, the *demoniacal attack*, the *ecstatic attack*, the *delirious attack*.

2nd. Fits in which elements are introduced that are foreign to the fundamental constitution of the attack, such as somnambulism or catalepsy.

1st Variety: Epileptoid Form.—The hystero-epileptic attack is reduced, so to speak, to the first period only, to the almost complete exclusion of the other periods. This phase may be so often repeated as to resemble the *état-de-mal* of true epilepsy. But the various remedies used to modify the hysterical attack check these alarming convulsions, and indicate the hysterical nature of the disease. Moreover, on close examination certain convulsive phenomena will be noticed which belong especially to hysteria, such as the movement of circumduction at the commencement of the tonic phase, the swelling of the neck, the persistence of the contraction during the phase of resolution. Lastly, between the epileptoid attacks there will often be observed some phenomenon suggesting one of the other periods, as, for instance, the opisthotonic arc, or some dramatic attitude assumed by the patient. Nothing similar is ever to be seen in true epilepsy. Moreover, there is never in these cases the same elevation of the temperature as that which always accompanies the *état-de-mal* in epileptic patients.

2nd Variety: Demoniacal Form.—The essential feature of this variety is the predominance of the phenomena of the second period—the period, namely, of contortion and active movement—to the more or less complete exclusion of the other periods. The contortions are carried to an exaggerated degree of development, and hence the name given by M. Charcot to this form. In fact, the patients present all the chief characteristics of "possession of the devil" as described by ancient authors. The limbs twist into the most extraordinary positions, the features are distorted, the tongue is protruded, piercing screams are uttered, and the fits of passion to which the patient gives way complete the horror of the picture. In this variety the first period is generally represented by a few convulsive phenomena, but the other periods are entirely absent.

3rd Variety: Ecstatic Form.—Attacks of ecstasy have been described by classical authors, who have not, however, as a rule, seen their connexion with the fundamental type of hysterical attacks. Briquet, however, expresses himself thus:—"Attacks of ecstasy may be produced in two ways; sometimes they are preceded by the ordinary prodromata of hysterical spasms or convulsions, the ecstatic condition being merely one of the incidents of the fit; at other times the patients fall suddenly into a state of ecstasy without prodromata of any kind." This variety of attack may be reproduced experimentally by inhalations of ether. It is due to a predominance of the third period, but is sometimes preceded by a few epileptiform phenomena, which betray the true nature of the disease. In some cases, however, this stage exists quite alone, and the attack may consist of one single dramatic action, prolonging itself for a considerable period, thus producing the best type of ecstatic attitude.

4th Variety: Attack of Delirium.—In this variety the delirium of the fourth period constitutes the main element; but it may or may not be preceded by epileptiform convulsions. The prophetic orations of the disciples of St. Médard may be considered as an example of this variety of hystero-epileptic attack.

5th Variety, in which the phenomena of catalepsy or of somnambulism supervene on other phenomena of hystero-epilepsy. Sometimes catalepsy or somnambulism occur spontaneously, without any relation to the hystero-epileptic attack. Briquet considers catalepsy to be a neurosis quite distinct from hysteria, although of a similar order. It may, however, happen that the two states are present in the same individual. Observations of catalepsy and somnambulism are not rare, and all authors who have treated of hysteria have spoken of cataleptic and somnambulistic attacks. The observation reported by M. Mesnet in the *Archives Générales de Médecine*, 1860, and that of M. Moissenet in the first fasciculus of the *Actes de la Société Médicale*, are of special interest in this connexion. In these cases the attacks of catalepsy or of somnambulism usually began by violent hysterical convulsions. Often, also, the attack terminated with convulsions; after which the patient completely recovered her senses, without any recollection of what had taken place in the attack. M. Charcot has observed the same sequence of phenomena in the five or six cases he has met with in his private practice.

It seems, then, that when the phenomena of catalepsy or of somnambulism occur in the course of a hystero-epileptic attack, they follow either the first or the second period, taking the place of the third period; or they come in between different parts of the epileptiform stage. It is interesting to remark that in the experiments upon artificially produced catalepsy and somnambulism, which are now being carried out at the Salpétrière, the onset of the cataleptic symptoms is marked by certain epileptiform phenomena, such as blowing inspiration, noisy movements of deglutition, foaming at the mouth, etc., which again occur in about the same degree at the moment of recovery from the attack.

ORIGINAL COMMUNICATIONS.

SIX ADMINISTRATIONS OF ETHEDENE DICHLORIDE.

By TOM BIRD, M.R.C.S.E.

The ethedene dichloride was prepared for me by Messrs. Robbins, of Oxford-street. Junker's apparatus, which I generally use for the administration of chloroform and methylene bichloride, was employed, as I wished to make a comparison between these anæsthetics and the ethedene dichloride.

Case 1.—Man, aged nineteen; a nervous patient. Pulse high at the commencement of the administration (98); in two minutes the pulse was 120, described as "full and bounding"; in the fourth minute it fell to 98, and the operation (tattooing opaque cornea) was commenced; in the eighth minute the pulse fell to 76,—the anæsthetic was discontinued, the operation being finished; in the ninth and commencement of the tenth minutes the patient spoke and answered the question as to where he lived. One drachm and a half of the ethedene dichloride had been used.

Case 2.—A woman, aged fifty. In four minutes iridectomy was commenced, and finished in the fifth minute. In five minutes and a half the patient slightly moved her head in answer to question, and retched at the end of the fifth minute. The pulse 90 at the commencement; fell to 80, and never again exceeded 94.

Case 3.—A child, aged three months. In this case, owing to the age of the patient, although I gave the anæsthetic in the same way, I gave it very slowly and cautiously. In three minutes iridectomy was performed; the child recovered perfectly in seven and a half. Pulse not taken.

In the three following cases Mr. C. J. Parke, one of the four who had kindly assisted me, now took the apparatus, while I took the pulse and general observations myself; hitherto I had been quite satisfied with the breathing:—

Case 4.—A child aged two years and nine months. Time of operation, four minutes and a quarter. Half a drachm used.

Case 5.—Boy, aged thirteen; one minute and a quarter. Patient anæsthetised. Pulse 108. Anæsthetic discontinued at the end of the fifth minute. A drachm and a half used. Pulse became fuller and more compressible at the end of the fourth minute. Sick afterwards.

Case 6.—A man, aged twenty. This patient was under the anæsthetic sixteen minutes. The operation was extirpation of eyeball. Pulse reached 110, with some slight excitement and conscious struggling; until and when completely anæsthetised, in the ninth minute, the face was flushed as after nitrite of amyl. The pulse fell to 72. The anæsthetic had been given as fast as it is possible, with the Junker apparatus. Five drachms were used altogether. Length of time of administration, sixteen minutes. Pupil was contracted till the end of administration, but responded to light.

Remarks.—Ethedene dichloride is hardly distinguishable from chloroform in appearance or odour, except that it may be a little sweeter and less pungent. Of the latter there is no doubt, as the method of administration showed in comparison with chloroform and methylene bichloride. The intelligence seems confused almost immediately, the ordinary reflex phenomena remaining apparently a longer time than with either chloroform or methylene bichloride. When these patients were deeply anæsthetised, as in Cases 1 and 6, the breathing was affected, becoming spasmodic and shallow (similar to that which I have noticed with animals under acetal, with which I have brought a mouse's respirations down to 40, followed by complete recovery), the pulse lowered, though much fuller in character and more compressible. All presented the appearance of a strong stimulant to the heart's action at the commencement of the administration. With regard to sickness, only one was actually sick, but six other patients, anæsthetised with the A, C, E mixture during the next hour also were without sickness. I think the anæsthetic is a good one for children, as being less rapid and pungent in its effect than usual. I should not like to be the first to keep a patient under it for a serious operation of an hour and fifty minutes' duration, as I have done without any bad effects under methylene bichloride, fearing that if it is always such a heart stimulant the reaction might be sometimes too much in the opposite direction.

CASES OF GENERAL PARALYSIS,

ILLUSTRATING THE INFLUENCE WHICH THE PREVIOUS LIFE OF THE PATIENT EXERCISES UPON HIS DELUSIONS.

By HENRY SUTHERLAND, M.D.

No form of insanity is so difficult to diagnose as general paralysis, both as regards the question of whether or not the patient is sane or insane, and also as regards its differential diagnosis from other forms of mental disease. This remark applies especially to its incipient stages, as the more progress the disorder makes, the easier it becomes, in most instances, to distinguish it from other maladies.

This difficulty of diagnosis frequently tempts young alienists rashly to pronounce a disease to be general paralysis in cases where only one or two of its symptoms are present. Later on, perhaps, the patient recovers, and their prognosis is proved to be wrong. The writer once saw a case in which three very common symptoms—irregularity of pupils, defective articulation, and delusions of grandeur—were present, which was diagnosed to be general paralysis. Later on a relative informed the medical attendant that the patient had always had a stammer, and that the irregularity of pupils was congenital. The case proved to be one of mania with exaltation, and was discharged cured in three months. Such cases are very rare, but we learn a great deal from them.

The most common symptom of general paralysis met with in the other forms of insanity is exaltation. If this exists in a chronic old case, whose history is well known, the diagnosis is easy. Not so, however, in acute recent cases, about which a guarded opinion should always be given. The next most frequent symptom found in paralytic and other forms is stammering. This is very often congenital. And, moreover, a real general paralytic may have it from childhood, in addition to the defect of speech induced by his disease. Irregularity of pupils is very characteristic of general paralysis, but it is also met with in the other phases of insanity. The writer has seen a case of mania in which one pupil was contracted and immovable through an old iritis, which might easily have deceived the most skilled observer had he not known the history of the case.

Having thus pointed out that we should be careful not to rush too hastily at conclusions in cases where we do not know the history and accessories, I wish to direct attention to a point which will materially assist our diagnosis of this fatal disease. In almost all cases the delusions and insane fits may be divided into two groups—the first comprising delusions of grandeur, with actions corresponding; the second being dependent upon the previous habits, education, religion, and whole existence of the patient. Of the first group I shall say no more, as they almost always touch upon the supposed wealth or strength of the patient. Of the second I shall give a few examples characteristic of the point I wish to illustrate.

Case 1.—A country gentleman, fond of horticulture. Delusion—that he could move all the trees in the garden of the asylum, unassisted.

Case 2.—Solicitor's clerk. Dismissed from employment as his disease advanced. Delusion—that he could do double the amount of work he ever did before.

Case 3.—Medical man in large practice. As he became worse, his patients abandoned him. After seeing five or six patients a day, he would return home, and write down that he had seen sixty. Would send medicine to people who did not require it.

Case 4.—Eminent surgeon, who had done much towards gaining subscriptions to his hospital. Delusion—that he was about to endow a large public charity.

Case 5.—Barrister. Had just got into a new house, for which he paid £1200; said he could sell it for £12,000 at once, and that he was going to ornament it with marble pillars from Rome and Pompeii.

Case 6.—Manager to a large confectioner. Delusion—that he was about to be taken into partnership.

Case 7.—Merchant. His receipts were at one time very large, but so was also his expenditure. Delusion—that his receipts were net profits, whereas he was really bankrupt.

Case 8.—Baronet. Formerly in the Army. Went through all the horrors of the Indian Mutiny. Delusion—that people in the next room were about to murder him, and that he must speak in a whisper, or they would overhear him.

Case 9.—Architect. Delusion—that he was about to build a palace for the Queen, unassisted.

Case 10.—Merchant, of Jewish persuasion. Delusion—that he is king of the Jews, that a cloud watches over him by day and night, like that which guided the children of Israel in the wilderness; this being really only the reflection of the window on the glazed paper of the wall.

Case 11.—Country gentleman, fond of shooting. Threatened to use the guns and pistols he had in his house. He was a gentleman of large property. Delusion—that he was ruined (uncommon in general paralysis).

Case 12.—Retired merchant. Had been a very fine amateur violin-player. Ptosis of left eyelid, and paralysis of left arm (probably from over-exertion in playing the fiddle). Delusion—that he was going to play a most difficult piece of music at a concert; whereas he was not able to place his fingers on the key-board of the instrument.

Case 13.—Club *habitué*. Asked the committee of one of his clubs to turn the lavatory into a large conservatory.

Case 14.—Merchant; importer of pianofortes. Delusion—that he had bought up whole forests of trees, which he was going to make into thousands of pianofortes. This patient could play the harmonium very fairly, reading the music quite correctly, on his admission. As the disease advanced it was curious to see how he left out, first notes, and then whole bars of music, in his anxiety to push on as he played. His writing also exhibited the peculiarity pointed out by Dr. Bacon, that letters, words, and bits of sentences were omitted. Like all general paralytics, he sought to obtain his end by short cuts.

Unless the power of speech be lost, one delusion at least can be found in almost all cases of general paralysis corresponding with the previous habits of the patient. The prominence given to this delusion at the commencement of the disease is very different from that variability of speech and action so frequently observed in the early stages of acute mania or other forms of insanity.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

REMARKS ON A CASE OF LOCOMOTOR ATAXY WITH BLADDER SYMPTOMS.

(Under the care of Mr. HUTCHINSON.)

The following case was made the subject of clinical remarks a week ago:—Henry A., an engine-driver, aged fifty-nine, was sent to Mr. Hutchinson by Dr. Toone Smith on account of difficulty in passing his water. On August 17 last, after a long day's work, he found at night that he could not micturate. He had no urgent desire, and accordingly went to bed. He woke an hour later, however, in great pain, but still failed. At noon next day he was put into a hot-bath, and whilst in it the urine passed, and from that time he was never able to hold it long. For a fortnight he suffered from constant incontinence, and at the end of that time he obtained admission into St. George's Hospital. Here, for the first time, an instrument was used, and a large quantity of residuary urine was drawn off. His surgeon advised him the regular use of the catheter, and this he has employed ever since, with the exception of the last week. At one period he had, he says, inflammation of the bladder, and his urine was thick. This history, Mr. Hutchinson remarked, is one which would fit well with enlargement of the third lobe of the prostate. The man is at an age at which prostatic enlargement is common. He describes an attack of retention, attended with the usual distress, and from which the bladder was allowed to relieve itself when much over-distended. The subsequent incontinence we explain by supposing that the bladder never really emptied itself, but that a considerable residuary quantity always remained. When the use of the catheter was prescribed, the incontinence ceased. We not unfrequently encounter cases in which incontinence is due, not to paralysis, but to a condition of persistent distension of the bladder (whether from stricture or enlarged prostate), which is never relieved. I should have adopted this hypothesis without hesitation, but that in our examination of the patient we came upon the fact that he is certainly the subject of locomotor ataxy. This makes it necessary to investigate the facts from another standpoint, and to inquire whether his urinary troubles may not be due rather to nerve disorder than to mechanical impediment. The case is a good example of how the domains of the physician and surgeon often overlap, and how needful it is for the latter to try to keep up some little familiarity with the facts of so-called medical disease. Before we proceed to examine our patient further, let me just remind you that there are cases to which the term urethral paraplegia has been given, in which disease of the spinal cord appears to be secondary to disease existing in the urethra. It is possible that the case before us may belong to that group, and in attempting to unravel its intricacies we must keep the dates clearly in memory. That our patient is really the subject of locomotor ataxy there can, I think, be no doubt. He walks with a stagger, bringing his heels down first, and when his eyes are closed is in danger of falling; he says that he feels as if his feet were sinking into some soft substance. He has almost constant "pins and needles" in the tips of his toes and fingers. His lower extremities feel somewhat numb, and are very liable to become cold. His patellar reflex is very much diminished, and his pupils are sluggish. Sensation in his lower extremities is diminished, and he has a feeling of tightness round his abdomen. Almost the only symptoms which are wanting to complete the picture are the lightning-stabs of pain and the rheumatic neuralgia. He has had very little pain of any kind if we except aching in the limbs after fatigue. The history of the progressive development of these conditions does not help us much in respect to the doubt as to whether his bladder symptoms are paralytic or mechanical. He says that the failure of his legs, etc., came on after his attack of retention. He is an engine-driver, and on the day in question had been his usual journey to Hastings and back. He had not considered himself ill previously. When we press him as to antecedent symptoms he admits that he had often felt fatigued after standing, and had aching in his calves more than his wont, but these feelings he had attributed to advancing years. He is, as I have told you, close on sixty. He has been a steady man, temperate in all things. His wife is living. He says that sexual activity failed him two years ago, but without any illness at the time. The function simply ceased, and for two years he has never had any intercourse. The interval is long, if we suppose that this failure was the beginning of his ataxy, before any other symptoms were added. Probably it is not uncommon for men at fifty-eight to experience a loss of this function without its meaning anything as regards spinal disease. At the same time, we must admit that anaphrodisia is a very common condition in locomotor ataxia, and that the first stage of this malady is often much prolonged. Sexual excesses are probably amongst the most common causes of this curious malady. In this instance, however, I do not think that there is the slightest reason for suspicion in this direction. Syphilis is, again, a very frequent antecedent of ataxy, but here we have an absolute absence of history of this taint. We are obliged, then, to fall back upon the fact that a man of fifty-nine had experienced no deviations from good health excepting such as might be explained by advancing years, when his attack of retention suddenly occurred, and that all definite symptoms of spinal mischief have come on since. Was his attack of retention such as is likely to have been due to ataxy? I scarcely think it was. In ataxy retention is common, but it has the peculiarity of being in many instances painless. Cystic paresis, or defective power on the part of the bladder to expel its contents, usually comes on by degrees. The patient is obliged, in order to empty his bladder, to give himself every hydrostatic advantage. He must stand up, and even then he is often slow in beginning, and ends before a complete result has been attained. A gentleman who consulted me a few weeks ago told me that he had been obliged to excite the bladder to empty itself by applying a cold sponge to his back. But our patient does not mention any troubles of this kind—at any rate, not to any greater degree than are probably common at

his age, and even much below it. His retention was after a long night-journey, and probably his bladder was full—just the circumstances under which prostatic retention was likely to happen. Nor is, I believe, the history of persisting incontinence common in ataxy, for paralysis of the sphincters is no part of that malady. The evidence, then, seems rather to favour the view that his retention, incontinence, and subsequent cystitis, were due to prostatic impediment. The bladder symptoms which occur in ataxy are usually to be explained by reference to the vaso-motor nerve. The muscular structure of the bladder, supplied chiefly from this source, loses tone and becomes feeble. At the same time there are commonly bowel constipation and sluggish pupils. Always in such cases examine the pupils with great care, for some of the most decisive indications may be obtained from them. It is not so much a question of their size as of their activity. If they are very sluggish, then the vaso-motor nerve is almost certainly defective.

REMARKS ON A CASE OF SYMMETRICAL NECROSIS OF THE BONES OF ALL THE TOES, SLOWLY ADVANCING UNTIL THE FRONT OF EACH FOOT WAS COMPLETELY DESTROYED.

(Under the care of Mr. HUTCHINSON.)

Eliza E., aged fifty-two, a cook. She states that the disease of her feet began twenty or thirty years ago. She had first dreadful aching pains in the bones. Then sores, "like ulcerating corns," formed, some beneath and some above the toes. From time to time "bits of bone would work out and come away," and the toes gradually shrank down. For the last four or five years the feet have been healed and in their present condition. Her feet now look as if amputation at the level of the metatarso-phalangeal joints had been performed, but with this difference, that on close inspection the skin of all the toes is seen to be still present in the scar. Each toe can be identified, with the exception of the great toe, but they are all pressed together until scarcely any projection is noticed. Thus it resembles the condition left by a frost-bite, excepting that the scar is not smooth, but contains the retracted remains of the toes. There were no ulcerations at the time I first saw the feet, the parts having been healed for two or three years. My examination was chiefly directed to discover whether syphilis or scrofula was mainly to be suspected. Our patient was a single woman, who had lived as cook in various families in London. She was pale and looked like a spirit-drinker. I could not, however, make out that in early life she had ever suffered from any symptoms which would suggest syphilis. Many years ago she had been for a time in St. George's Hospital under Mr. Prescott Hewett with a troublesome eruption on both arms; but this was some years after her feet began to suffer, so that we could not suppose it a secondary eruption to which the latter was tertiary. Formerly, she had also an eruption on one shoulder, but it was called shingles, and had left grouped scars like those of shingles. She had never had sore throat or sore tongue. It was, of course, little or no use asking direct questions. Whilst the facts in reference to syphilis were wholly negative, there was considerable evidence in proof of scrofulous taint. On her mother's side she believed that several had suffered both from consumption and scrofula. A cousin had, for many years, had his feet bad, and she believed they became, in the end, almost like her own. One of her brothers was still the subject of a very bad leg.

Our patient had come under care, not on account of the peculiar state of her feet, for she had got used to it, but because large ulcers had recently formed in her left leg. These were inflamed, and attended by solid œdema. They were not characteristically syphilitic, and above them were some varices. You will notice that the process of necrotic exfoliation which had reduced the toes to this peculiar condition had been very gradual. It had, indeed, extended over fifteen years or more; and during this time it had never quite disabled the woman from her occupation. She had not had much treatment, but had picked out the bits of bone herself as they presented, and "burned them or buried them in the garden." She had never had any scrofulous disease elsewhere, unless the eruption on her arms was such; and she did not remember in early life to have suffered much from chilblains.

Mr. Hutchinson showed subsequently a portrait of a hand in which an almost similar state of things had been produced. All the fingers had been lost, and the thumb only remained. The skin was in a condition of lupus-scar. In this instance there had been no exfoliation, but rather disintegration and absorption.

ST. MARY'S HOSPITAL.

A CASE OF ACUTE RHEUMATISM, FOLLOWED BY TYPHOID FEVER.

(Under the care of Dr. SIEVEKING.)

THE following case, unfortunately not an isolated one, illustrates one of the dangers to which hospital patients are liable. The typhoid infection was undoubtedly contracted in the hospital, but its direct source was not traced. None of the other patients were similarly infected.

Frederick H., aged seventeen years, a groom, was admitted on October 21, 1878, suffering with acute rheumatism. His family history seemed fairly good, and he had had no previous rheumatic attacks. The illness had commenced three days before admission, and patient could give no cause for it. He had not been exposed to cold or wet, but felt on getting up in the morning that his legs were giving way under him, and that he was very weak and hot.

On admission, he complained much of pain in his shoulders and knees, and both ankles were tender; the arms and legs were swollen; he perspired much at night; had a troublesome cough; tongue was white and furred; bowels constipated; pulse very quick; respirations 56 to the minute; temperature 103°. There was some tenderness over præcordial region, and well-marked friction sounds were heard over base and apex.

October 24.—The pain in the joints seems more acute this morning, and has extended to the wrists. There have been profuse perspirations in the night, and patient has slept very little. Flying blisters have been applied over the præcordium and joints; the pain at the former is less. Patient is taking a mixture of iodide of potassium, bicarbonate of potassium, and opium.

28th.—Patient has improved very much. Temperature to-day is normal; pulse 80; tongue slightly coated; there is still a little pain in the præcordial region on drawing breath; the pain in the joints is much less acute.

November 1.—The heart friction-sounds are again more marked and temperature is rising; patient has no pain in the shoulder-joint, a little at the præcordium.

6th.—Temperature this morning has risen to 103°. There is intense pain over heart, very much increased at each inspiration, and the friction-sounds are much increased. Pulse 147; tongue white and dry; skin hot and dry.

7th.—The left leg is now affected; the right leg was painful two days ago, but is now free from inflammation. The friction-sounds are very loud, but there is no pain about the chest. Pulse 124; temperature 101·8°.

9th.—Morning temperature 104°. There is præcordial dulness as high as the first intercostal space. Friction-sounds are quite inaudible except at the margin of the area of dulness. Patient is in great pain and has not slept, notwithstanding a hypodermic injection of morphia.

13th.—Patient is rather better this morning. The area of præcordial dulness in diminished, and he is not in pain. There have been no symptoms of endocarditis.

22nd.—He continues to progress favourably, and was allowed to sit up for an hour last night. The area of heart-dulness is much increased from normal.

25th.—Patient sits up daily, and says he does not feel weak, but any slight exertion increases the heart's action very much.

December 3.—Rheumatism has attacked both knees this morning very severely. He began to be ill in the night. Temperature 101·8°.

10th.—Temperature fluctuates, but patient says he feels much better. The præcordial dulness extends to the second costal interspace.

13th.—Last night there was a return of præcordial pain, but no rise of temperature, which has been about normal since the 9th inst.

19th.—Temperature last night 102°. There is a doubtful systolic mitral murmur.

26th.—Temperature steadily rising; 103° this morning.

Salicylic acid had been prescribed, but has been discontinued, as patient says it makes him sick.

30th.—Temperature this morning 104°. Yesterday a warm bath was administered, but patient had to be taken out before the temperature reached 98°, as he grew faint, so that no effect was produced. To-day his nose has bled a little, and he has been sick, vomiting a small quantity of bile. He is in no pain, but complains of great thirst. His tongue is furred; pulse 108; bowels relaxed.

31st.—Distinct typhoid spots are visible on abdomen. The stools are frequent and typically enteric. There is tenderness over both iliac regions; the skin is hot, dry, and rough. Patient was sick last night. Yesterday a bath was again administered, its temperature being 75°, reduced to 60°. Patient's temperature in the morning was 104·6°; after the bath it was 99·4°; in the evening it rose to 105°.

January 2.—There is not much difference in morning and evening temperature. To-day it is 103·2°; pulse 144, weak. Patient is restless at night, but not actually delirious. He complains of defective vision.

3rd.—He is not improving; there is great weakness, and there is a dull, sleepy look about the eyes. The rose spots are still present on abdomen and chest. The tongue is coated with a thick yellow fur, and patient complains of defective hearing and vision.

4th.—Dry rhonchi can be heard over the whole of the chest, and there is a considerable quantity of tenacious sputum tinged with blood. The rose spots have assumed a papular character, and are very numerous over the whole of the trunk and thighs. Temperature 103·6°; pulse soft; bowels relaxed, and stools of a typhoid character. The abdomen is somewhat distended, and slightly tender in the right iliac fossa.

6th.—Patient is very much worse. His breathing is distressed; there are sordes on the lips; he is semi-conscious, and complains of intense pain in the abdomen; pulse very rapid and most feeble; diarrhœa excessive. Patient gradually sank, and died on this date.

Post-mortem Examination (January 7).—Thorax: The bronchial tubes of the lungs were deeply congested and filled with frothy mucus. There was no pneumonic consolidation. At the posterior part of left lung there were some slight organised adhesion. The pericardium was universally adherent to the heart, but was not anywhere attached to the pleura. There were slight vegetations on both the aortic and mitral valves; the left ventricle was somewhat hypertrophied; otherwise the heart was normal. Abdomen: The spleen was somewhat enlarged, soft, and pulpy. The liver had undergone some amount of acute fatty change. There were several small capillary hæmorrhages beneath the capsule. The kidneys were pale but healthy. The stomach and large intestine were normal. In the small intestine close to the ileo-cæcal valve were to be seen various stages of typhoid ulceration, from the simple congested Peyer's patch to the sloughing ulcer. The mesenteric glands were enormously enlarged. The brain was somewhat congested, and there was some diffuse arachnoid hæmorrhage over the left parietal and occipital lobes; it was in other respects normal.

DEATH OF DR. SALES-GIRONS.—This well-known writer and hydrological practitioner has just died at the age of seventy-one from the effects of a rapid and adynamic pneumonia. Having had the editorship of the *Révue Médicale* since 1849, he has constantly and ably employed it in developing the doctrines of animism, and has frequently proved a powerful opponent of the materialist views of the Paris School of Medicine. He had recently transferred his editorship of the *Révue* to Dr. Edouard Fournié, of the Deaf and Dumb Institute. In the practical world he has become widely known as the inventor of the "pulverisation of mineral waters," for the inhalation of which he has invented most ingenious and elaborate apparatus, which are in operation at his establishment at Pierrefonds, where he has officiated as Inspector of Mineral Waters for many years. His sanguine statements regarding the efficacy of the inhalation mineral waters are far from being generally adopted; but of the ingenuity of his procedures and the success with which they have attained the object in view—of obtaining the minute division of the mineral constituents of medicinal waters—there can be no doubt.

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Medical Times and Gazette.

SATURDAY, JANUARY 18, 1879.

THE DENTISTS' REGISTER.

THE period during which persons entitled to be registered under the Dentists Act could be registered on payment of a fee of £2 expired with the year 1877, and at the last there was such a rush of applicants that close upon five thousand "dentists" have now been "conditionally" placed on the Dentists' Register. It is known that very few, comparatively, of these persons possess a licence in dental surgery or dentistry of any of the medical authorities, or are entitled to be registered as foreign or colonial dentists; and it seems almost, if not absolutely, impossible to believe that all, or even nearly all, the rest were, at the passing of the Dentists Act, "*bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy." No effort of any kind has been made to protect the Register against the admission of any person whose conscience, or ignorance, permitted him to make application in the form prescribed by the Act. The Medical Council allowed the Act to pass without protest, so far as we are aware; accepted, or permitted themselves to be burdened by it with, the duties of superintending the education, examination, and registration of dentists; and, then refused to define in any way the expression "*bonâ fide* in the practice of dentistry or dental surgery"; and we now see the result. Are the five thousand already admitted to the Register to be permitted to remain on it? It is said that they are only "conditionally registered," and that the Register will be purged of those who have no right to be upon it. But how and when is this process to be effected? The Act provides that any person who wilfully procures, or attempts to procure, himself to be registered, by making or producing, or causing to be made or produced, any false or fraudulent representation or declaration, and any person aiding or assisting him therein, shall be liable to imprisonment. But the only machinery for exercising the power of erasure

from the Register is a Committee of the General Medical Council, to consist of not more than five members of that body; and how are they to obtain evidence of incorrect or fraudulent representation? We have received a pamphlet giving an explanation of the Act made by Mr. Tomes to a meeting of the Dental Reform Committee, of which body he is chairman, and it is interesting, though, as it seems to us, far from assuring, to learn what he says on this subject. "Very speedily after August 1, 1879," he tells us, "the Dentists Register will be published, and then will come the time of reckoning; and that reckoning must in each case be set in motion by those who have the requisite knowledge, and who are most interested in securing a correct Register—the *Registered Dental Practitioners*—for it can be done by none else. The dental practitioners are the only persons who, in their respective localities, know the persons who are in *bonâ fide* practice as dentists. It will be for them to look over the Register so soon as it is published, and, if names are found therein which have been wrongfully entered, the facts of each case must be collected and transmitted to the Registrar of the Medical Council." It will truly be an edifying spectacle to see registered dentists trying to oust each other from the Register! and what a work for those members of the Medical Council who may be appointed on the Erasure Committee! Mr. Tomes thinks that but a very few individuals will have got upon the Register wrongfully, or at least did think so when he made his explanation on December 7 of last year. Does he think so now? According to his view, all who have obtained admission to the Register wrongly are safe till next August at any rate; and how much longer after that time will it be before an expurgated Register is published? The Council are required to cause a correct copy of the Register to be published "at least once a year," and it will certainly take some time to purify and correct the first issue if many persons have got on it without any right to be there. Meanwhile their names will be before the public as registered dentists; and if they like they will be posing as dental-surgeons or surgeon-dentists. But Mr. Tomes, if we read his speech correctly, takes a very cheerful view of the Dentists Act. He thinks, apparently, that it is the best possible of Acts, and that everything in it is excellent. We are sorry that we cannot agree with him. We do think with him that any Act that converts an open profession into a closed one should be drawn in a liberal spirit, and administered in a liberal spirit. But it appears to us that, in some points at least, the spirit in which the Act has been drawn is that of licence rather than of liberality; and that the way in which it has been administered, so far, is unfortunate alike for the public, the dental profession, and the Medical Council. It appears to us now that the wisest, and, indeed, a necessary course for the Medical Council to pursue, will be to entreat Government to insert in their Medical Bill a clause transferring the whole management of the dentists—their education, examination, and registration—to the dentists themselves.

We must add that nothing that we have said is meant to reflect in any way on the Registrar of the Medical Council. That gentleman has simply and faithfully carried out the directions of the Council; and the only fault that can be found with him is that he has rather increased the immense extra labour imposed upon him by the invariable and untiring patience and courtesy he has shown to all applicants.

DIPHTHERIA AND MILK.

Everyone, whether lay or professional, is now perfectly familiar with the fact that epidemics of certain zymotic diseases owe their origin and propagation to the agency of milk. This is now, though recently, so well known and recognised in respect of typhoid fever, that the milk-supply of an infected community is one of the first to be suspected among the possible sources of the mischief. Scarlatina, too, has in several instances been clearly demonstrated to have been co-extensive with the distribution of a milk-supply shown to be contaminated. The causal connexion of milk with outbreaks of other zymotics has been much less frequently suspected, and still less frequently established. And even in the case of enteric fever and of scarlatina, the charge against the milk has been, not that, as a rule, its own intrinsic properties as milk had introduced the epidemic, but that it had simply acted as a vehicle for the distribution of the specific poison, with which it had become charged by some such medium as air or water. That certain conditions of milk *per se* might in some cases be answerable for outbreaks of zymotic disease in man is not, however, an unheard-of suggestion, for it will be remembered that this was one of the theories advanced to account for the great epidemic of typhoid fever in Marylebone several years ago. But the suggestion then attracted little notice and received no scientific support or confirmation. It has, however, been again revived under circumstances which seem to give so strong presumptive evidence in its favour as to render the speedy settlement of the question a matter of the highest importance.

It is not in connexion with enteric or scarlet fever, as might have been expected, but with another disease—diphtheria—whose dissemination by milk, even as a menstruum, has never hitherto been conclusively demonstrated, that the question has been brought into its present prominence.

Our readers will probably recollect that during the latter part of the spring of last year the adjacent districts of Kilburn and St. John's-wood were visited with so severe an epidemic of diphtheria that the Local Government Board deputed Mr. W. H. Power, one of their medical inspectors, to inquire into the facts. His report has recently been presented, giving the results of a most careful and able investigation. After a painstaking scrutiny of the possibility of accounting for the outbreak by such causes as direct infection from person to person, or the deleterious effects of contaminated water, Mr. Power was as far as ever from a satisfactory solution of the problem. A much more likely explanation was supplied by the conditions of the sewers and drains of the infected district (the greater portion of which is served by one system of sewers and drains), which were of so unsatisfactory a character that "the special sewage area cannot have failed to have been repeatedly, if not continually, exposed to sewer and drain nuisances." These defects must have been greatly intensified as a consequence of the notable rainfall of April 10 and 11 last, which resulted, especially in Kilburn, in obstruction of the too narrow sewer outfall, inevitably producing a backing-up of sewage, and a penning-up of foul air within the ill-ventilated sewers, to be followed by "the forcible expulsion of the pent-up sewer-air, by way of unventilated house-drains and inefficiently trapped orifices, into the dwellings of the district." As a matter of fact it was found throughout the outbreak that there was a marked excess of diphtheria—both relative and absolute—in the special sewage area over the other parts of the district under consideration; that in the four weeks succeeding the sewer obstruction there was a steady increase of cases in the overflown sewage area not shown by the rest of the affected district; and that in the fifth week from that date there was a most marked augmentation of throat mischief within this area, while other parts of the district showed but little increase. After the fifth week the epidemic declined. If no other evidence had been forthcoming, "it would look indeed," Mr. Power admits, "as if there were a special relation between the circum-

stances of the special sewage area and the incidence of the throat illness." But "a difficulty in accepting this explanation of the outbreak arises from the five weeks' interval between the occasion of the obstruction of the sewers and the (great) outburst of throat illness, such interval being not easily reconciled with what is known of the incubation period of diphtheria." In spite of this interval Mr. Power does not pretend to deny that the sewer defects of the district may have had some concern in the outbreak, though he thinks he has distinct evidence justifying the belief that their influence has been only of a subordinate character. We may point out, however, that though the epidemic did not reach its height until after the time mentioned, it certainly began within less than a fortnight after the inundation referred to.

We have given the above details because some of our readers may be inclined to consider them quite sufficient to account for the epidemic, especially as no conclusive evidence has hitherto been adduced of the dissemination of diphtheria by the agency of milk, as in the case of enteric or scarlet fever. It must, however, be confessed, on the other hand, that neither has its connexion with sewer-air or other foul emanations been quite satisfactorily established. As Mr. Power puts it, "All that previous research has justified us in affirming is, that the disease has a power of spread from person to person, and has also a faculty of development out of an antecedent prevalence of throat illness, the diphtheritic character of which may not, until a certain stage of the prevalence has been reached, be affirmed." In the light of our previous knowledge, Mr. Power himself, at the beginning of the inquiry, when it was first suggested to him by Dr. Morton, of Kilburn, that the milk-supply was connected with the outbreak, regarded such a relation as highly improbable, and accordingly deemed it essential to examine all other possible causes before accepting the milk explanation.

It is unnecessary to give the various details and numerical statistics of the evidence which led Mr. Power to the conclusion that this outbreak of diphtheria in North-West London was to be attributed to the milk-supply. Suffice it to say that he found the immense preponderance of cases occurred in houses supplied by milk from two separate wholesale milk businesses belonging to one proprietor; that, in particular, even in the special sewage area referred to, there was a very marked inequality of prevalence of throat illness in the houses supplied with milk from one of the businesses mentioned, as compared with those supplied by other milkmen; and that a striking similarity was observed in the chronology of some earlier local outbreaks of the disease in centres widely apart supplied by milk from the other place of business. These and other facts, taken together and in detail, furnished such a body of evidence as seemed to Mr. Power to render the conclusion inevitable that the outbreak was in some way directly attributable to the milk-supply. The next step, therefore, was an investigation into the circumstances under which the milk had become specifically contaminated. Mr. Power's attempts in this direction were, however, entirely without result; no means of infection of the milk, either during the process of milking or at any subsequent period, could either be detected or even suggested, and Mr. Power is obliged to conclude his report with the clear conviction that the milk-supply in question was in causal connexion with the diphtheria epidemic, but with complete absence of evidence as to how the milk had become infective. A speculative explanation, however, had occurred to him, and formed the subject of the paper read for him by Dr. Buchanan before the Pathological Society on Tuesday, the 7th inst. In this paper he propounds the view that the infective property of the milk was probably due to the existence of some trivial or unobserved ailment affecting the cows, or some of them, and thus rendering the milk *per se* the source of all the mischief. He has discovered that there sometimes exists among milch-cows an affection of the udder called "garget," which, while seriously injuring the milk, yet affects the general condition of the animals so slightly that attention may not be called to the matter at all. In our to-day's report of the last meeting of the Pathological Society it will be seen that some important, though incomplete, information regarding "garget" was brought forward by Mr. Smee; and our readers will, no doubt, study the report for themselves.

We may here be allowed to express our own lingering doubt whether the epidemic in question may not, even on Mr. Power's own evidence, be more satisfactorily accounted for by the sewage conditions of the affected area than by its milk-supply. Nevertheless, Dr. Murchison has declared at the Pathological Society that he was quite convinced of the justness of Mr. Power's indictment of the milk as the cause of the mischief. But one or two facts at least are opposed to it, and notably this one: that there is no evidence whatever that at any period throughout the season there was anything like sore throat at either of the dairy farms supplying the incriminated milk. Surely, if the milk had been the cause of the mischief, the people employed about the cows would have been likely to have suffered in some degree. Again, the remarkable outburst of the epidemic in the middle of May seems more naturally explainable by the only remarkable antecedent fact elicited, of the inundation, blocking, and bursting of the sewers and drains in the affected district. No doubt the inundation occurred a clear month before the height of the epidemic; but such an interval is hardly too long to negative the probability of their causal connexion, especially in the absence of a tittle of proof of any other unusual antecedent circumstance, and in the presence of the fact that the epidemic began, if it did not reach its height, within a fortnight after the rainfall.

But, be that as it may, we none the less recognise the great interest and urgent importance of the issue raised by Mr. Power. As was pointed out, we have already a sufficient number of instances, in vaccinia with small-pox, in "foot-and-mouth" disease, in miliary tubercle, in anthrax-fever with malignant carbuncle, in trichiniasis, and in rabies with hydrophobia, that many diseases in the cow or other quadrupeds are communicable in more or less altered forms to the human subject, and that in many cases, too, the clinical characters of the induced disease in man are not only different, but of a more serious type than those of the prototype in the inferio animal. This question of "garget," then, in its possible relations to diphtheria in man, is only part of a most interesting and important field of study and research in the comparative pathology and connecting-links of diseased conditions in animals and men. There have undoubtedly occurred many epidemics of enteric and scarlet fever, where, after milk was distinctly shown to have a causal relation with the outbreaks, no evidence has been forthcoming as to how the milk derived its infective character. It has also been mentioned as a curious coincidence that during the recent outbreak of diphtheria in the Princess Mary's Home, "garget" was found to be prevalent at the farm supplying milk to the Home. But details are still wanting regarding this outbreak.

We may be allowed, in conclusion, to express the hope that the results of the investigations of the Committee of the Pathological Society, appointed to investigate this garget question, may be of a more definite and scientific value than can be ascribed to much of the similar work lately done by such committees.

ST. BARTHOLOMEW'S HOSPITAL "CASUALTY" DEPARTMENT.

An interesting addition to our information regarding the use and abuse of our public charities is supplied by Dr. Robert Bridges, in the fourteenth volume of the *St. Bartholomew's Hospital Reports*, in a paper giving an account of the Casualty Department of that great charity. The article is one well worthy of attentive perusal by all who are interested in the maintenance or reform of the out-patient departments of our hospitals; and Dr. Bridges has, moreover, succeeded in conveying his information in a very readable and attractive form, without at all losing sight of the importance and seriousness of the questions involved.

The St. Bartholomew's "Casualty" Department, we may inform our readers, is of very recent growth, the first Casualty Physician having been appointed as lately as 1870; and there was not even any out-patient department till about five-and-thirty years ago. The Casualty Department was instituted, as Dr. Bridges phrases it, as a kind of "*filter* to the Hospital," the "filtrated" patients—a very small proportion of the total casualty cases—becoming either out-patients under the Assistant-Physicians and Assistant-Surgeons, or, in a relatively small number of cases, in-patients of the Hospital. Dr. Bridges confines his remarks almost entirely to the Medical Casualty patients, who, as usual, comprise a much larger number than the Surgical casualties, and are, besides, those regarding whom Dr. Bridges can speak from personal knowledge as one of the Casualty Physicians. He finds, from the Clerk's report, that, on the whole, something like 160,000 patients were entered as having received relief at the institution during the year 1877; and of this immense number upwards of 150,000 were registered as visiting the Hospital as out-patients presumably for the first time, representing something like 190,000 visits during the year. From careful calculations, checked by his own observations, Dr. Bridges shows that almost 120,000 different cases passed through the hands of the Casualty Physicians; and he gives reasons for believing that these figures rather understate than overstate the actual facts. For the herculean task of seeing, examining, and prescribing for each of these Medical Casualty patients the available staff comprises the junior Assistant-Physician of the Hospital and three Casualty Physicians, each attending four times a week. The work is done in the mornings, the patients being admitted between nine and ten o'clock. The "filtrate" ought to be ready for transference to the out-patient rooms or the wards by eleven o'clock; and the description Dr. Bridges gives of the forenoon's work is worth ten thousand homilies on the preciousness of time.

From the above figures it will be seen that each of the four Physicians doing work in the casualty-room must have seen on an average at least 30,000 patients during the year; and as Dr. Bridges actually kept a record of the number seen by himself during one year, he found that the above figures very nearly represent the fact. "Expedition" must, therefore, be the watchword for the Casualty Physician. "It is certain," says our author, "that about 600 patients, medical and surgical, are often got rid of as early as half-past eleven in the morning; and a good medical 'filtrator,' working at high pressure, will pass at least 100 patients per hour." Dr. Bridges confesses he himself never attained this speed, but he finds from his statistics that the average time he spent on each patient was a little over one minute and a quarter! All kinds of devices must be had recourse to if the Casualty Physician is to get through his work in anything like reasonable time. For the immense majority of cases no prescription is written, but the patient receives from his physician a small square ticket, bearing the printed initials of the medicine prescribed. There is some interesting information regarding the favourite medicines, and the expense of this item on the Hospital funds. A mixture containing quassia and iron was a great favourite, and he shows that the cost of treating 30,000 patients with this would amount to no more than about £135. Another great favourite, "H.M.S. cum M.S.," a draught containing sulphuric acid and sulphate of magnesia in mint, is even cheaper.

As regards the results of this hurried treatment, they appear to be more satisfactory than might be expected. Excluding the cases transferred to the wards of the Hospital, and to the Out-patient Department strictly so-called, Dr. Bridges found that about two-thirds of those who repeated their visits to him "expressed themselves as feeling better," and were, in his opinion, actually the better for their treatment. Yet Dr. Bridges remarks, in conclusion, that though the treatment would seem, on his own showing, to be fairly satisfactory, the system is, nevertheless, in his opinion, an intolerable one; and he hopes to see the day when the objection to the figures in his report may not be that they are matter of fact, "but that they are fabulous and incredible."

It is very noteworthy that Dr. Bridges' observations do not at all support the idea that the majority of his patients had little or nothing the matter with them. He classifies them thus:—"Many seriously ill, some mortally, many but slightly, but nearly all with considerable bodily inconvenience or pain;" and again he says—"In fact, the majority of those I saw seemed patients in good faith: the worst objection that one could raise to them as patients being, either that their complaints were trifling; or that they had brought them on themselves by indiscretion, to which discretion rather than Epsom salts was the antidote; or that their perhaps miserable state was the result of traditional, inveterate, and wilful ignorance, which only Acts of Parliament and police regulations could grapple with."

The whole article demands, and ought to command, the serious consideration of the hospital authorities. Is the work described such as ought to be required of skilful, highly educated physicians? It is very difficult, if not altogether impossible, that they can learn anything from it. It is wonderful to find that Dr. Bridges managed to take in a year even rough and imperfect book-notes of as many as seventy cases; and he found it impossible to follow up the history of such of these as were admitted into the wards of the Hospital. And he refutes the idea that the department was of any great value as a "feeder" to the wards. Further, ought such work to be done at all? Dr. Bridges shows what the cost of the medicines is, and remarks that if each casualty patient paid the Casualty Physician sixpence a visit, "which is not much, considering that many of them owe their complaints to drinking eightpennyworth of beer a day, we should each of us derive from them an income of over £750 a year." And he adds:—"Not far from the Hospital gates there lives a medical practitioner, as I hear, who sees his patients and gives them medicine for this very sum" of sixpence a visit, "and the prodigal charity of our Hospital, which seems on such a grand scale, is in actual competition with this individual." Is this system of gratuitous relief, carried to this extent, true charity? The question is one which the managers of the wealthy and Royal Hospital of St. Bartholomew's ought to carefully consider.

THE WEEK.

TOPICS OF THE DAY.

Much objection must be taken to the action—or, to speak more correctly, the want of action—of the Lord Mayor in a case of food adulteration brought before him last week. Dr

Sedgwick Saunders, Medical Officer of Health for the City, applied at the Mansion House for an order for the condemnation of seventy-nine sacks of flour which was unfit for human food. The application was made under Section 2 of the Nuisances Removal Act, 1863, and Dr. Saunders stated that this stuff, which was called flour, was adulterated with 79 per cent. of sulphurate of lime or plaster. As far back as September last the sanitary inspector of the district received information that 100 sacks of this meal had been imported, but Dr. Saunders failed to trace it, and it was only by the coincidence of his being privately applied to for an analysis of this very flour by a person who had advanced money upon it, that he was enabled to obtain a sampling order, which justified him in applying for an order for its condemnation. Judging from the report, there would not appear to have been a question as to the course to be pursued; but the Lord Mayor saw fit to insist that the person who had advanced a sum against the adulterated flour should come into court and prosecute the importers for obtaining money under false pretences. It was in vain that Dr. Saunders pointed out that he had no power to compel such a proceeding, that he was only acting as guardian of the public health, and that unless the Court interfered the stuff might be sold pending ulterior proceedings—was, in fact, he believed, already sold to a French baker. The Lord Mayor, having adopted his view, refused to be moved, and, oddly enough asserting that he "was bound to protect the public," declined to grant the order sought for by Dr. Saunders, who was accordingly compelled to leave the court without the order he had applied for. Meanwhile the importers will have ample opportunity afforded them for disposing of this adulterated article; and the inhabitants of one of the poorer districts of the metropolis will suffer in proportion, thanks to the delicate point of law propounded by the chief magistrate of the City of London.

An inquest was held at Portsmouth last week on an aged lady residing with her son-in-law, Major Pritchard, of the Royal Marines. The evidence showed that the deceased, who was seventy-six years of age, and blind, was taking dessert with the family, when a curious noise was heard in her throat, and she was found to be choking from the effects of a pip of an orange, which she had inadvertently swallowed. Medical assistance was at once procured, but death ensued in the course of a few days. On a post-mortem examination being made, the pip was found to have lodged in the ventricle of the larynx, on the right side, and death had resulted from inflammation and exhaustion.

A special general Court of the Governors of the London Hospital was held last week, to consider the following recommendation of the House Committee, of which notice had been previously given:—"That the by-law stating that 'no governor shall have more than one in-patient and four out-patients at the same time,' be altered as follows:—'Each governor shall be entitled to sixteen patients' tickets per annum. In the event of the person recommended as a patient being deemed by the medical or surgical officer to require admission, owing to the severity of the case, such person shall be at once admitted as an in-patient, provided there be room in the wards.'" The motion was carried unanimously. It was further resolved that a report be brought up in 1880 on the working of the new regulations.

The sanitary condition of Walkley, a district of the town of Sheffield, in which a large number of deaths from scarlet fever have lately been recorded, has recently been the subject of inquiry, and the Health Committee of the Sheffield Town Council has published a report which discloses a most unsatisfactory state of affairs. The report states that the sanitary condition of even comparatively new houses is so bad that they should immediately be closed, and it refers to one whole street as nothing but a vast piggery. Almost every inhabitant was in the habit of keeping pigs, the sties being close to the house doors, consequently the miasma arising from them, especially in summer, was a fertile means of spreading fever and diseases throughout the district. In another part of the neighbourhood one house was situated in which eight deaths had occurred from scarlet fever. Inspection showed that the drains were defective and emptied themselves on land close to the house, where the refuse water stood until it became offensive. Under the floor of the kitchen was a large cistern which had been placed to receive rain-water from the roof of the house, and this water was used by the occupiers for drinking and all other purposes. On further examination it was found that the sink-water, after having been used for washing, drained into the cistern and was drunk by the whole of the family. The Health Committee are therefore of opinion that the prevalence of fever in the locality is not surprising, and it remains to be seen what steps the Town Council will inaugurate to procure a vigorous reform in such a wantonly unhealthy locality.

At last week's meeting of the Metropolitan Board of Works a deputation was received from the St. Luke's Artisans' Dwellings Scheme and Street Improvement Association to present a memorial on the subject of the Whitecross-street Improvement scheme. The Chairman of the Association explained the steps which had been taken in the parish during the past two years to urge the Board to action, and they were now there to press for immediate action in obtaining tenders for two lots between Whitecross-street and Bunhill-row on which there were only three wretched hovels now remaining to be demolished. This land, on which, by the scheme of the Board, it was proposed that two blocks of dwellings should be erected, was about a quarter of an acre in extent. The ground had now been vacant for eight or nine months, he did not say through the action of the Board, but still the land was lying idle awaiting the execution of the scheme of the Board. The delay was very prejudicial to the poor of the neighbourhood, and the speaker proceeded to give several instances of overcrowding in consequence of want of accommodation, which had come under his personal observation. Sir James McGarel Hogg, in reply, said that no doubt two years seemed to the deputation a long time, but he could assure them the Board had used all possible despatch in prosecuting the work. There had been much difficulty in negotiating for the transference of the land, and in some cases it might be necessary to have an arbitrator appointed. Several members of the Board assured the deputation that every effort was being made to expedite the work, but the chief blame rested with the impracticable nature of the Act under which they had to work; and with these assurances the deputation finally withdrew.

The *United Service Gazette* says:—"In consequence of the delay in the issue of the new Warrant for the Medical Department of the Army, the authorities at Whitehall cannot invite members of the medical profession to enter the Service. The Medical Department is at the present moment about sixty below its establishment in consequence. It is not, however, true, as has been reported, that civil surgeons have been sent to the Cape in order temporarily to fill the vacancies in the Army Medical Department. Those who have gone to South Africa have been employed on service with the native levies."

An important step for the preservation of the river Wye from pollution has just been taken at Hereford. The sewage of the district has hitherto been allowed to escape into the

river, and a local landowner, who is one of the conservators of the stream, has instituted proceedings against the Corporation to compel them to dispose of the sewage otherwise than by polluting the river. The Corporation appear to have met the matter in an amicable spirit, and they have resolved to submit to an order being made upon them to wholly divert the sewage from the Wye in three years from the present time, and to establish a sewage farm two miles east of the city.

A discussion took place last week at the Dublin North Union Poor-law Board, on the alarmingly high death-rate of Dublin, which was lately returned as 51 in every 1000 of the population, a number of the deaths being attributable to small-pox. It was stated that the deaths, which might be ascribed to the weather, rose from 43 in the corresponding week for the past ten years, to 96 last week. A motion was given notice of for a formal discussion of the whole subject at an early date.

The Manchester Corporation last week resolved, by fifty-five votes to two, to proceed again this session with the Bill for empowering it to obtain water from Lake Thirlmere.

Ambroise Tardieu, the celebrated Professor of Legal Medicine at the Paris Faculty of Medicine, and formerly Dean of the Faculty, died on Sunday last. We shall shortly supply an account of his useful public and scientific career.

THE CLINICAL SOCIETY.

On Friday, January 10, the annual meeting of this Society was held. As usual with this and certain other bodies of a similar kind, the meeting was devoted partly to the ordinary business of the Society, and partly to that special to the occasion. Dr. Murchison (Vice-President) was in the chair, and was thus able to congratulate his old colleague, Dr. Greenhow, on being elected President of a society so much akin to that whose chair Dr. Murchison has himself only just vacated. Certainly if any man in the Clinical Society deserves the chair for the pains and trouble taken by him in connexion with the Society, Dr. Greenhow is that man. To a very great extent he was the author of its being; from the very first he has been a scrupulously careful Treasurer, a duty which he now hands over—not without a good round sum for disposal—to Mr. Heath. Dr. Cayley, too, the retiring Secretary, did not vacate his post unacknowledged. This portion of the proceedings on the occasion would have passed off most harmoniously had it not been for what, for want of a better word, we must call a *contretemps*. Mr. George Brown took the occasion of this the annual meeting to express his desire for a list of proposed members of Council something more extended than that now afforded, so that there might be a selection if desired. Of course there are objections to such a scheme, especially that most undesirable stigma which would attach to anyone included in the list, but not among those selected. The Council try, we believe, to make the body itself a fairly representative one of hospital teachers and general practitioners; and, upon the whole, the selection is good. But we must hold that the chairman, Dr. Murchison, who ruled Mr. Brown out of order in making any observations on the subject, was technically right, but probably wrong in the reasons he assigned for his action. No doubt, as was afterwards pointed out by Mr. Heath, Mr. Brown's observations should have come as an amendment on the reception of the annual report; but it is not wise on such occasions to stifle anything in the shape of debate. Mr. Brown may have been wrong in point of time and form, but he was right in point of fact. At the annual meeting of any society, anything whatever relating to it may be discussed; and it would be well in future that on all such occasions the chairman should take the opportunity of inviting at the proper time any observations which may be forthcoming. If there is any grievance, it is well that it should be ventilated. This can only be done at the annual general or specially summoned meeting; and at such times as are available these things should not be repressed. The following is the report of the Council:—"The Council of the Clinical Society, in presenting the eleventh annual report, is again able to congratulate the members on the continued prosperity of the Society, as shown by increasing members, and full attendance at the meetings. During the past year, twenty-one new members were elected, and two members died, viz., Mr. Hilton (an original member and former Vice-President) and Mr. Ezra Hunt. The Society has also to deplore the loss of one of its most distinguished foreign honorary members, Baron Rokitansky. Three members have withdrawn, leaving a net increase of sixteen ordinary members. The Society now comprises 250 ordinary resident members, fifty-five non-resident members, and thirteen honorary members, making a total of 318. The treasurer's balance-sheet shows an income for the year of £533 14s. 5d., including a balance for the previous year of £211 16s. 7d., and an expenditure of £280 6s., leaving a balance of £253 8s. 5d. The Society holds £400 Consols. The eleventh volume of the *Transactions* is more richly illustrated than any of the preceding ones, and the Council trusts that the increased outlay upon it has produced satisfactory results. The Committee appointed to investigate the 'Incubation Period of Certain Contagious Fevers,' and the 'Effects of Prolonged and Continuous Use of Chloral,' have not yet completed their labours, and have applied for an extension of time before sending in their reports. In conclusion, the Council is desirous of impressing upon the members the necessity of complying with the regulation which requires the reports of cases to be sent on to one of the Secretaries a week before it is intended to read them. The increasing numbers of the communications renders the observance of this rule essential to the proper working of the Society." The following is the list of the officers and Council of the Society for the year 1879:—*President*: *Edward Headlam Greenhow, M.D., F.R.S. *Vice-Presidents*: *John S. Bristowe, M.D.; Wilson Fox, M.D., F.R.S.; Samuel Osborne Habershon, M.D.; Richard Barwell; *Robert Brudenell Carter; John Whitaker Hulke, F.R.S. *Treasurer*: *Christopher Heath. *Council*: *Julius Althaus, M.D.; *William Cayley, M.D.; *Robert Farquharson, M.D.; Thomas Henry Green, M.D.; Graily Hewitt, M.D.; A. Julius Pollock, M.D.; James Edward Pollock, M.D.; *George Vivian Poore, M.D.; Thomas Tillyer Whipham, M.B.; Charles Theodore Williams, M.D.; *Edward Bellamy; *William Bartlett Dalby; Frederick James Gant; James Grey Glover, M.D.; John Langton; William Mac Cormac; *Charles Macnamara; Arthur Bowen Richards Myers; Thomas Pickering Pick; *Leonard William Sedgwick, M.D. *Honorary Secretaries*: *Frederick Taylor, M.D.; F. Howard Marsh. (Those gentlemen to whose names an asterisk is prefixed were not on the Council or did not hold the same office during the preceding year.) The adoption of the report was moved by Dr. Stewart and seconded by Dr. Southey. The vote of thanks to the retiring President, Mr. Callender, was moved by Mr. Mac Cormac, and seconded by Mr. Howse. Mr. Hulke moved a vote of thanks to the Treasurer, Dr. Greenhow, which was seconded by Dr. Cholmeley. Mr. Soelberg Wells moved a vote of thanks to the retiring officers, which Dr. Burney Yeo seconded, and the meeting adjourned.

UNIVERSITY OF EDINBURGH.

The Register of the Medical Faculty of this University again shows a considerable increase. The number of students

in that Faculty for 1877 was 1176; for 1878, 1293. In this Faculty the same wide range of supply of students is as remarkable as in former years, and shows how largely our colonies and India are availing themselves of the special educational forces of this country. The entries in the register show that of the 1293 students in the Faculty of Medicine, 565 are from Scotland, 445 from England, 22 from Ireland, 75 from India, 149 from different British colonies, and 34 from foreign countries. The average age of the students in this Faculty is 20·8 years. The degree of M.D. was conferred on thirty candidates, and the double degree of M.B. and C.M. on 115. The average proportion of students taking degrees is about one in nine. During the past year the following additions have been made to the list of University prizes, scholarships, etc.:—1. The Cameron Prize: A sum of £2000 has been left by the late Andrew Robertson Cameron, M.D., of Richmond, New South Wales, for the purpose of establishing a prize to be given at the graduation ceremonial in August in each and every year to the practitioner or member of the medical profession who shall be adjudged to have made the most valuable addition to practical therapeutics during the preceding year—the word "therapeutics" to be taken in the widest sense as including every agent or agency capable of influencing the human body in the maintenance or improvement of health, the avoidance or cure of disease, or the alleviation of suffering. 2. Dr. John Aitken Carlyle's Bursaries: Dr. Carlyle has, through the Association for the Better Endowment of the University, founded two bursaries of the value of £30 each to be awarded by competitive examination. One is open annually to students in the first year of their medical course, for proficiency in anatomy and chemistry; the other is open to students in the second year of their medical course, for proficiency in anatomy and physiology. 3. Two Mackenzie Bursaries, of the annual value of about £25 each, have been founded in memory of the late William Mackenzie, F.R.C.S.E., formerly Demonstrator of Anatomy and Conservator of the Anatomical Museum in this University. They are open to students in each of the junior and senior anatomy classes respectively, and will be awarded at the end of the session to the student who has displayed the greatest industry and skill in his practical anatomy work. The new buildings for the medical school were commenced last autumn, and will be vigorously pressed forward with the view of having the whole range completed and the respective departments in full operation in time for the commemoration of the "tercentenary" of the University, which will take place in 1882.

NERVE-STRETCHING IN TETANUS.

Dr. J. J. L. Ratton, Professor of Surgery at the Medical College, Madras, has published a small pamphlet with the praiseworthy object of encouraging the study of tetanus, and especially its treatment. Hospital statistics which he gives show that the disease at Madras is most prevalent and fatal in April, and least so in September and December. It affects natives more than it does Europeans, apparently because the native is more exposed to the changes of temperature between night and day. He has had more cases in patients kept in sheds out in the open air than in the wards of the general hospital; and cases frequently occurred after a rain-storm. Regarding treatment, he is most in favour of the chloral hydrate, but it must be given very boldly and continuously in heroic doses, kept up for at least a week or ten days. Drachm doses should be given every two or three hours till the patient is so far narcotised that he lies in a state of sleep, from which he can be roused to take food in a mechanical way at intervals. When the narcotism has been established the medicine may be given less frequently. Dr. Ratton declares that it is worse than useless to give the chloral timidly or intermittently. He devotes some attention to nerve-stretching, of which his impression is favourable, as a means "of modifying the conductivity of the whole nerve, from its roots to its termination, and of establishing a new and healthier action in it." He gives four cases in which he performed this operation, but of the four three were fatal, although the *clonic* spasms of the limbs appeared to be controlled. The patient who recovered was kept under the influence of chloral for a fortnight after the operation. The other patients died from exhaustion, and would probably have died under any treatment. Dr. Ratton does not seem to think the carbolic spray essential in the operation of nerve-stretching, and, curiously enough, seems to consider that suppuration in the course of the nerve that is stretched is "an important factor in the remedial action of nerve-stretching."

PROFESSOR SCHROEDER'S SECOND SERIES OF FIFTY OVARIOTOMIES.

The *Berliner Klin. Wochenschrift* (No. 1, 1879) contains a table of the fifty most recent ovariotomies performed by Professor Schroeder according to the strict antiseptic method. They extend over the period from February to December, 1878. Seven patients, or 14 per cent., died; and forty-three, or 86 per cent., recovered. All the deaths occurred in very difficult and complicated cases. In one the immediate cause of death (in the second week) was adhesion of the pedicle to the wall of the pelvis, so as to strangulate the rectum; another patient died from shock; a third had myxomatous degeneration of the whole peritoneum. The remaining four died, one from fatty degeneration of the heart, the three others from septicæmia. Professor Schroeder remarks, with regard to the latter, that it appears impossible, even with the strictest antiseptic precautions, to be absolutely certain of excluding septic germs from the abdominal cavity. He also thinks that while a few such germs might be nearly innocuous to a healthy organism, they acquire greater virulence in a depressed and diseased subject, with numerous wounds to afford them a congenial proliferating surface. He also points out that, after loss of blood, the "suction-power" of the circulatory apparatus will be more vigorous, and hence the penetration of the germs to distant parts of the system more easy. Two of the cases were complicated with pregnancy, and both ended favourably as far as the mothers were concerned. Professor Schroeder has as yet operated five times in pregnant women, the diagnosis in each case having been previously made. All five recovered. Three were normally delivered at term; one aborted after the operation; and the fifth gave premature birth to a living child, which, however, afterwards died of general weakness. The operation is best performed in the first half of the period of pregnancy. Later on the broad ligaments receive such an abundant blood-supply, and the pedicle of the tumour becomes so much shortened, that the operative difficulties and dangers are decidedly increased. With reference to a case in which the tumour removed was very small—not larger than a duck's egg,—Professor Schroeder remarks that such small tumours are more difficult to operate on than those of medium size. Both here and in Battey's operation for the removal of normal ovaries, he makes the incision in the linea alba long enough to introduce the whole hand into the peritoneal cavity, and so bring the ovary or growth outwards, ligature, and remove it. Tumours of unusual size, on the other hand, are troublesome because their removal leaves "too little to fill the abdominal cavity, and too much wall to cover it." If the intestines and mesentery are not of sufficient size, it is difficult to expel the air, which always enters the abdomen when its wall is incised, after the operation. This air may or may not be

free from septic "germs." If free, its presence is of no importance, as it is sure to be absorbed; but of course it is impossible, as above remarked, to insure this. Professor Schroeder, therefore, is accustomed, "if the intestine does not sink of itself into the pelvic cavity; to pack the latter with the sigmoid flexure of the large intestine, and then with coils of small intestine, and to spread the mesentery over all. It is thus easy to expel the air before the last sutures are secured." If, however, the mesentery is, as happens in cases of some very large tumours, too short to allow the small intestine to descend, there is nothing for it but to press the flaccid abdominal walls deep into the pelvis, and thus expel the air. This, of course, renders the accurate closure of the wound by sutures much more difficult. In two cases Professor Schroeder has even removed a piece of the abdominal parietes, but only one of them benefited materially by the excision. This was a case where the portion removed included the sac of an umbilical hernia the size of a man's fist.

INFANT MORTALITY IN EXETER.

THE Exeter Board of Guardians having had the subject of infant mortality brought prominently to their notice by the medical officers of health, resolved to refer the matter to a sub-committee to investigate and report upon, and at a recent meeting of the Board this report, which had previously been considered in private, was read and adopted. The Committee state in their report that they have taken a large amount of evidence from both medical and clerical witnesses, as well as from other residents in the city. With regard to the question of the ignorance of mothers, they find that the evidence of members of the medical profession was to the effect that most of the cases of infantile diseases which presented themselves to the dispensary and hospital physicians were due directly or indirectly to improper food or feeding, and unscientific medication. The use of gin, brandy, and soothing-syrups, so freely resorted to, was strongly condemned. As to illegitimate children put to nurse, the Committee think it would be well to compare the number of illegitimate births in the city with the number of deaths under one year old; and on comparing the statistics of Exeter with other towns, they find that the proportion of illegitimate to 1000 actual births was—Exeter, 67; Coventry, 47; Devonport, 30; Leicester, 45; Plymouth, 50; Southampton, 44. One clergyman stated that he had known houses inhabited by persons who took in infants to nurse, where children never lived more than six months. The Committee also pointed out that foster-mothers who took one child only, did not come under the provisions of the Infant Life Protection Act of 1872; no opportunity was afforded of inspection, and there was reason to believe such infants were often neglected and cruelly treated. They recommended that the attention of the Home Secretary be called to this defect, and they suggested the appointment of a person to look after infants at nurse. According to medical testimony, the sanitary state of the lower portions of the city cannot be too strongly condemned, and the system of infant insurance is, in the opinion of the Committee, mischievous, frequently offering strong temptation to crime; they therefore think it might be beneficially done away with.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE following resolution was unanimously adopted at a meeting of the Council of the Poor-law Medical Officers' Association, held on the 7th inst.:—"That this Council, having read the letter from the Local Government Board to Mr. Fenton, in which the Board, after making several *ex parte* statements against that gentleman, call on him to resign his appointment, and having had an opportunity of hearing Mr. Fenton's explanations thereon, begs to express its regret that the Local Government Board should have been so ill advised as to adopt the extreme measure of compelling his resignation, solely, as it appears, to gratify the hostility of the St. George's Board of Guardians. The Council also holds that, as the principal allegation on which the Guardians based their opposition to Mr. Fenton arose from that gentleman persistently recommending nourishment for the sick poor he was required to attend through an order from the relieving officer, and which extras that official, in deference to the harshly repressive views of the St. George's Board of Guardians, persistently refused to supply, on the assumption that such sick poor persons were in a condition to provide the same; and, as such refusal to supply needful food and stimulants to persons whose impecuniosity has been admitted by the grant of a medical relief order is calculated seriously to retard their recovery, or to hasten death, and as it has come to the knowledge of the Council that refusals to supply food and stimulants recommended by medical officers are continually disregarded in other Poor-law unions, desires to put on record its feeling that the respective relations between district medical officers and relieving officers require to be more accurately defined, if medical officers are not to be retarded in their desire to do their duty to the sick poor put under their charge."

SANITARY REPORT ON ISLINGTON.

IN presenting his report on the sanitary condition of the parish of St. Mary, Islington, during the years 1876 and 1877, Dr. Charles Meymott Tidy, Medical Officer of Health for that district, apologises for the light style he has adopted in compiling his statement. But he explains that his reason for not adhering too strictly to scientific phraseology is the hope that he may thereby gain a few readers who otherwise would throw his pamphlet aside as unintelligible; and, having gained them, that they may be induced to afford willing assistance in the sanitary improvement of the parish. He says—"Many profess an interest, and their professions are real and honest, so long as our action as a sanitary authority has reference to their neighbour's dwelling, his water-supply, drains, and so forth; but touch him, or touch his home, complain of his own water-closets, drains, or traps, and his earnest sanitarianism soon dwindles away into thin air before a possible plumber's bill of thirty shillings." Medical officers of health, he says, write books and reports telling of sanitary laws and hygienic requirements, which remain uncut and unread by those who receive them. Thus mines of practical truths relating to health are thrown aside because it is too much trouble to read them; and the question of a halfpenny rate seems to stir up fifty times the interest, and to be treated with fifty times more importance, than the supreme topics of health and disease. Dr. Tidy, in his report, writes strongly on the prevention of epidemics of small-pox, and very fully on the quality of the water-supply during the period under notice; and in an appendix he has added "the report of the Medical Officer of Health and of the Sanitary Committee upon the small-pox epidemic of 1876-77, with tables and diagrams."

THE "DEUTSCHE ZEITSCHRIFT FUR PRAKTISCHE MEDICIN."

LIKE the *Archiv für Heilkunde*, the above *Zeitschrift*, which was founded in 1874 by Kunze, has with the expiration of the year 1878 ceased to exist. The editor, Dr. B. Fränkel, while regretting the sad necessity which puts an end to his labours, admits that the decease of the journal "will not leave a sensible gap in medical literature"—in other words, that the said journal had but little *raison d'être*.

CASE OF THE PRISONER NOLAN.

We are requested by the Committee appointed by the Home Office to investigate this case to state that the paragraph which appeared last week in the pages of a contemporary, and which was copied by some of the morning papers, is inaccurate. The Committee have neither "completed their investigation," nor "prepared their report"; nor have they yet come to any agreement as to its contents.

ROYAL COLLEGE OF PHYSICIANS.

The Goulstonian Lectures will be delivered this year by Dr. Curnow, "On the Lymphatic System and its Diseases"; the Croonian Lectures by Dr. W. H. Stone, "On Some Applications of Physics to Medicine"; and the Lumleian Lectures by Dr. Bristowe, "On the Pathological Relations of the Voice and Speech." The Harveian Orator this year is Dr. Wilks.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

The annual general meeting for the election of officers and Council for the year 1879 will be held at the Society's Rooms, 11, Chandos-street, on Wednesday, the 22nd inst., at 8.30 p.m. The following is a list of the names of the Fellows proposed by the Council:—*President:* S. J. A. Salter, M.B., F.R.S. *Vice-Presidents:* J. A. Baker, Samuel Cartwright, W. A. N. Cattlin, Alfred Coleman, and John Smith, M.D., F.R.S. *Treasurer:* T. Edgelow. *Honorary Secretary:* J. Hamilton Craigie. *Council:* S. Hamilton Cartwright, J. Fairbank, F. Fox, G. Gregson, W. D. Napier, George Parkinson, John H. Parkinson, and W. G. Ranger. The adjourned discussion on Dr. C. Meymott Tidy's paper on "Anæsthetics" will be resumed at this meeting.

THE ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

At the annual meeting of this Society, held January 13, 1879, the following members were recommended by the present Council as officers and councillors, and elected for the year 1879:—*President:* Edwin Saunders, Esq., F.R.C.S. *Vice-Presidents:* Resident—Henry John Barrett, Esq.; Charles James Fox, Esq.; T. A. Rogers, Esq. Non-resident—H. Campion, Esq., Manchester; David Hepburn, Esq., Edinburgh; Alfred Meara, Esq., India. *Treasurer:* James Parkinson, Esq. *Librarian:* Felix Weiss, Esq. *Curator:* C. S. Tomes, Esq., M.A., F.R.S. *Honorary Secretaries:* W. G. Ranger, Esq. (for foreign correspondence); Ashley Barrett, Esq., M.B. (Council); S. J. Hutchinson, Esq. (Society). *Councillors:* Resident—H. B. Longhurst, Esq.; H. Sewill, Esq.; A. P. Reboul, Esq.; E. B. West, Esq.; J. S. Turner, Esq.; T. Underwood, Esq.; Oakley Coles, Esq., J. Walker, Esq.; W. H. Woodhouse, Esq. Non-resident—W. Margetson, Esq., Dewsbury; W. Campbell, Esq, Dundee; J. Doherty, Esq., Dublin; W. R. Wood, Esq., Brighton; W. Hunt, Esq., Yeovil; T. W. G. Palmer, Esq., Cheltenham.

MANCHESTER MEDICAL SOCIETY.

The annual meeting of this Society was held at the Owens College on January 8, when the following office-bearers, members of committee, and auditors were elected for the year 1879:—*President:* Mr. F. A. Heath. *Vice-Presidents:* Dr. Gumpert, *Dr. Leech, *Dr. H. Simpson, *Dr. Thorburn. *Treasurer:* *Dr. Little. *Honorary Librarian:* *Mr. Windsor. *Honorary Secretary:* *Mr. Cullingworth. *Committee:* Mr. A. Boutflower, *Mr. Bradley, Mr. Broadbent, Dr. Dreschfeld, *Mr. A. Hamilton, Mr. Hardie, Mr. Thomas Jones, *Dr. Morgan, *Dr. Lloyd Roberts, Dr. James Ross, *Mr. Stocks, *Mr. W. Whitehead. *Auditors:* *Dr. Humphreys, *Dr. Simon. Those to whose names an asterisk (*) is prefixed did not fill the same office during the previous year.

ROYAL COLLEGE OF SURGEONS.

A quarterly meeting of the Council of the Royal College of Surgeons was held on Thursday, the 9th inst. This was the first time the Council had met since the death of the Princess Alice; and they very fittingly availed themselves of this—their earliest—opportunity to resolve that a respectful address of condolence be presented to her Majesty on the death of H.R.H. the Princess Alice, Grand Duchess of Hesse. The President and Vice-Presidents were empowered to draw up the address, which will be sealed with the College seal, and forwarded to the Home Office for presentation to her Majesty.

The report of the Committee of the Museum of the College was received, and the first part of the catalogue was ordered to be printed. A list of the Members of the College, sixty-four in number, who had died during last year was read. The reports from the other annual committees were received.

The President referred to the fact that Government will bring forward during the approaching session of Parliament a Medical Act Amendment Bill, probably similar to that introduced last year; and proposed that a committee, consisting of the past Presidents of the College and of himself and the Vice-Presidents, be appointed to report to the Council on the steps which it may be desirable to take with reference to proposed medical legislation. The proposal was adopted. The Committee consists accordingly of Messrs. Simon, Luther Holden, Erichsen, Busk, Hancock, Curling, Le Gros Clark, Prescott Hewett, and Birkett, and Sir James Paget.

Mr. Hancock's motion for the appointment of a committee to consider and report on the necessary arrangements to be made for the institution of examinations in chemistry, materia medica, pharmacy, and midwifery, to be passed by all candidates (not otherwise qualified in these subjects) for the Membership and Fellowship of the College, was postponed.

FROM ABROAD.

Hydrophobia in France.

In an interesting report made by Dr. Proust in his own name and that of Prof. Bouley (*Annales d'Hygiène*, November), he gives an account of the prevalence of hydrophobia in France during 1869-76. Former inquests upon the subject have been made by Profs. Tardieu and Bouley, commencing in 1850, and extending to 1868. Unfortunately, none of these reports have succeeded in giving complete accounts of hydrophobia in France, for, centralised as the administration of that country is, and it being the duty of the préfets of each department to supply the information, yet there have been many departments from which no account of the number of the cases has been received. As regards the present eight years, thirty-five out of eighty-six departments only have furnished replies.

The figures of these eight years seem to show, as do those of the former reports, that for every two persons bitten by a mad dog there has been only one immunity from the disease, which, compared with all other statistics, is a very high proportion. According to the return of the number of deaths accruing from hydrophobia in France from 1850 to 1876, they amounted to 740, or a little less than 28 per annum. As regards *sex*, the conjoined returns for 1850-76 show that, of 671 persons bitten, 456 were males and 215 females; while of 360 males bitten, 187 (or a little more than half) died, and of 138 women bitten, 66 (or a little less than half) died. As to *age*, of 101 individuals bitten during 1873-76, no less than 28, or more than a fourth, were between five and fifteen years old, showing the great liability of young persons to meet with this accident. As to the influence of age on the development of the disease, it was found, of 482 bitten during 1862-76, of whom 234 died, that (while the general proportion of one death to two persons bitten was nearly maintained) the mortality was not the same at all ages. Thus from

five to fifteen, of 154 individuals bitten, there were only 37 (or about one-fourth) who died. But of 32 bitten between the ages of sixty-one and seventy, 22 (or more than two-thirds) died, and of 8 bitten between seventy-one and eighty, 6 (or three-fourths) died. If children are more exposed to being bitten, they appear, however, less disposed to contract the disease.

The following are the animals which caused the bites during 1850-76:—Dogs, 707; wolves, 38; cats, 23; fox, 1; cow, 1. The important conclusion that hydrophobia is a *disease of all seasons* is amply supported by the following statements of the months in which the cases occurred:—June, July, August, 220; March, April, May, 182; December, January, February, 156; September, October, November, 166. As to the period of *incubation*, among 221 cases in which this was ascertained during 1862-76, it was found that the disease manifested itself in 139 of these during the first sixty days after the bite. The chances become very favourable when two months have elapsed, while after three months complete immunity is highly probable. Still, in the table 54 cases are returned as manifesting themselves between the 60th and 100th days, 21 between the 100th and 180th days, and 3 at yet later periods. In 139 cases occurring in 1862-72, in which the duration of incubation is stated, this was of a mean duration of forty days in subjects less than twenty years of age, and of sixty-seven days in those above that age. In 429 cases (1850-76) in which the *duration* of the disease is stated, it was found that this was one day in 22 cases, two in 98, three in 91, four in 143, five in 23, six in 33, and from seven to nine in 18 cases, one case being returned as having lasted fifteen days. The sole *prophylaxis* (excision of the parts is rarely, if ever, recommended by French writers on this subject) consists in speedy and thorough cauterisation, and especially by means of the actual cautery or the butter of antimony. According to Dr. Proust's returns for 1869-76, added to those of Prof. Bouley for 1863-68, of a total of 454 bites, in 250 hydrophobia followed, and in 204 it did not, giving a mortality of 55 per cent. Of these, in 249 cauterisation was performed, hydrophobia following in 89, and no symptoms following in 160—viz., a mortality of only 35·7 per cent. In 117 in which cauterisation was not performed, the mortality (96) was 82 per cent.; and in 88 in which no information is given on this point the mortality (65) was 73·6 per cent.

At the annual general meeting of the Society of Public Analysts, held at the Chemical Society, Burlington House, on Wednesday, January 15, the presidential chair was conferred on Dr. Muter, Public Analyst for Lambeth, Newington, Wandsworth, Southwark, Bermondsey, Rotherhithe, and the borough of Tenterden, in succession to the retiring President, Dr. Dupré. The Vice-Presidents elected were Drs. Dupré (Westminster), Campbell Brown (Liverpool), and Tripe (Islington). Papers on interesting points in the analysis of phosphates, butter, etc., were read by Messrs. Hehner, Jones, and Mills, and the meeting adjourned till February 19. Afterwards the annual dinner took place at the Café Royal, Regent-street, Dr. Muter, the new President, in the chair.

Cæsarian Operation with Removal of the Uterus.—Prof. Gustav Braun related to the Vienna Medical Society an instance of this operation which had just occurred in his practice. A rickety primipara of extremely small stature, with a very large head, was brought into the Midwifery Klinik, December 12, the liquor amnii already discharged, and the labour pains having commenced. On examination, the measurements of the pelvis were found to be so extremely small that craniotomy could not be safely performed, and the Cæsarian section was at once resorted to, as the action of the child's heart had begun to fail. The child having been extracted, the uterus and ovaries were removed by means of the écraseur, which had been previously applied. The placenta was not removed, but remains attached to the preparation of the removed uterus, the bleeding which occurred being quite insignificant. Prof. Braun observed that this made the fifteenth case now recorded in medical literature in which this procedure had been employed, and nine of these terminated favourably. It is to be expected that in the future this operation will be more frequently resorted to, as by this method great losses of blood and other inconveniences can be avoided. —*Allg. Wien. Zeit.*, December 17.

REVIEWS.

The Influence of Posture on Women in Gynecic and Obstetric Practice. By J. H. Aveling, M.D., Physician to the Chelsea Hospital for Women: Vice-President of the Obstetrical Society of London. London: J. and A. Churchill. 1878. Pp. 182.

We are at a loss for a reason why this book should have been written. A general description of the physiological alterations in the bodily functions which are known to follow changes in position, would not be without value; but such an account would not need a volume so large as the one before us. The author has put it together because he thinks that of the diseases of women "there still remains a large number the source of which must be referred purely to posture," and that "the effects of posture on the health of women are not sufficiently appreciated." His first chapter —"General Considerations on Posture"—is a very good one, and were the rest of the book like this we should have nothing but praise to give it. Then he goes through the different parts of the female generative apparatus, and the several functions of these organs; and considers each of them from the point of view of posture, discussing every possible depression or elevation, turn, bend, or twist, backwards, forwards, or sideways; under each heading describing the effects which he assumes may result from such a change in position. We say "assumes," because the author does not, as a rule, adduce any new observations: he seems to think that what, according to his reasoning, ought to take place, actually does do so. Dr. Aveling has a strange fondness for coining new words: thus we have "antrorsion," "sinistrorsion," "prolapsion," "retroprolapsion," "tubulation," "nidation," "lochiation," "thrombosis," etc. Without discussing the etymological propriety of Dr. Aveling's words, we would say that if a term has come into such general use that everyone who sees it knows what is meant by it, that is, to our mind, a sufficient reason why it should be left unaltered. The confusion and mistakes that may arise from the use of an unfamiliar expression, are not counterbalanced by the reflection, that the strange word is more correctly formed from the root. To put it briefly, we hold that etymology exists for language, not language for etymology.

The author has not thought his work complete without a chapter on "Posture in Copulation." Our readers can easily conceive a most unsavoury chapter on such a subject. Dr. Aveling's is none of this: it is simply nonsense, of which the worst we can say is, that it is very foolish and not very pleasant nonsense.

To express briefly our opinion of the book, it is this: that it contains much that is true, but is at the same time trite and commonplace; that what is new is not proved to be fact; and that some pages had better not have been written. We find no evidence that "there still remains a large number" (of the diseases of women), "the source of which must be referred purely to posture"; and if it be the case that "the effects of posture on the health of women are not sufficiently appreciated," we do not think this book will alter professional opinion on the point.

The Diseases of Women: their Causes, Symptoms, and Treatment. By A Physician. London, Paris, and New York: Cassell, Petter, and Galpin. Pp. 298.

This work is one which, as it is obviously written for the public, does not claim detailed criticism at our hands. It is most desirable that the laity should understand, and therefore sympathise with, the aims and methods of scientific medicine. In proportion as they do, the charlatan will fail to find support, and genuine work will meet with its just reward. At the same time it is doubtful whether works which profess to teach people how to treat themselves are a real benefit. We know what is said of the man who is his own lawyer; and the same principle applies to some other things. Books to instruct people how to keep in health are one thing: those which try to show them how to cure disease are quite another. Few medical men trust in their own judgment when they themselves are the patients; much less then should persons who are not in the daily habit of treating others.

Granted, however, that such books are desirable, this work

is evidently that of one who understands the subject; the statements contained in it are accurate, the opinions sound, and the advice judicious. It is free from objectionable matter, and from any taint of quackery.

GENERAL CORRESPONDENCE.

CLASSES FOR PRACTITIONERS.

LETTER FROM DR. WM. DALE.

[To the Editor of the Medical Times and Gazette.]

SIR,—"Classes for practitioners," which, you state in your issue of January 4, have been established at Berlin, "to enable men of some standing in the profession to furbish up their medical knowledge, and bring themselves to a level with the science of the day," is assuredly one of the real improvements of the age. Any man of ordinary ability might "furbish himself up" in mid-life by seeking the preparation needed for the higher grades in the profession; but often pecuniary or other circumstances prevent him. Now, such "practical classes of six weeks' duration" exactly meet a want which must have been felt by many general practitioners, and I—when you say in connexion with the effort in Germany that "it is one well worthy of imitation in this country"—hope your hint will not be lost, but that the teachers in our large hospitals, both London and provincial, will speedily copy the example which has thus been set by our German *confrères*. I am, &c., WM. DALE,

Phys. West Norfolk and Lynn Hospital.

Paradise, King's Lynn, January 8.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 7.

CHARLES MURCHISON, M.D., LL.D., F.R.S., President, in the Chair.

BRAIN SHOWING THE EFFECTS OF EXTREME CONGESTION.

DR. COUPLAND showed this specimen, with a drawing of its recent condition. It was the brain of a female patient, twenty-one years of age, who was admitted into the Middlesex Hospital, under the care of Dr. Greenhow, on November 30, 1878, suffering from a severe attack of acute bronchitis. She had been subject to cough the two previous winters, was ill-nourished and ill-developed; and the attack for which she was admitted dated from about three weeks. There were extreme dyspnœa, cyanosis, and all the signs of severe general bronchitis. On the third day after admission she fell into a semi-comatose state, from which she never rallied, dying on December 6, apparently from carbonic-acid poisoning. A notable feature was the rise in the temperature of the body during the time she was comatose, it having been 99° on admission, but after December 2 rising to 101°, and thence progressively mounting to 105·6° two hours before death. At the post-mortem examination the dural sinuses were found to contain fluid blood and scanty loose clots, the cerebral pia mater was much injected, whilst throughout the whole of the white matter of the hemispheres were scattered a large number of punctiform hæmorrhages, in addition to a marked degree of simple vascular engorgement. But there was no softening, and the hæmorrhages were limited to the white substance, a few showing beneath the lining membrane of the lateral ventricle, which was empty of fluid. The choroid plexus and veins of Galen were distended with blood. The lungs were emphysematous, congested, and œdematous, the bronchi being plugged with matter. The heart contained much fluid blood, the right ventricle being dilated and hypertrophied. The liver, spleen, and kidneys were indurated from chronic congestion. Dr. Coupland pointed out that diffuse capillary hæmorrhage (affecting, however, largely the cortical substance) of the brain occurred in some cases of thrombosis of the sinuses of the dura mater (one such case being figured by Bright in his "Reports of Medical Cases"), the hæmorrhage being there obviously due to direct mechanical impediment to the return of blood from the brain. In the present case the obstruction to the circulation was far removed from the brain—viz., in the lungs—and in this respect the case was of interest. He added that there was no local disease of vessel discoverable by the microscope, the capillary apoplexy being purely the result of severe mechanical congestion; whilst from the absence of softening it was probable that the actual occurrence of the hæmorrhages only took place a short time before death.

DR. GREENHOW added that this capillary hæmorrhage was not attended with any motor paralysis.

CHRONIC LOBAR PNEUMONIA.

DR. COUPLAND also showed a lung with microscopic specimens illustrative of this condition. He observed that in his lectures at the College of France, in 1877, M. Charcot clearly subdivided cases of indurative lung disease (apart from phthisis and "dust diseases"), often grouped together under the general term of "cirrhosis," into (1) chronic lobar pneumonia, (2) chronic broncho-pneumonia, and (3) chronic interstitial pneumonia—the various degrees of the first-named of these conditions (which might arise from a "prolonged lobar pneumonia," or from "recurrent pneumonia") being indicated by the appearances known respectively as "red," "grey," and "slaty" induration. The lung shown fell under the last-named head. It was obtained from the body of a man forty-one years of age, under Dr. Greenhow's care at the Middlesex Hospital from October 23 to November 6, 1878. He was a plumber by occupation, and looked much older than his years. He had been subject to winter cough for ten years, and had been a free drinker, but had never had gout or syphilis. He was admitted into hospital in a very prostrate condition at the close of two months' illness, marked by increasing dyspnœa, severe and frequent cough with fetid expectoration. He never thoroughly rallied from his extreme asthenia. There was pyrexia, albumen in the urine, and towards the close of life uncontrollable diarrhœa increased the exhaustion, from which he sank. There were found pleural adhesion and thickening of the pleura over the posterior and lower part of the right lung, the lower lobe of which, as well as the posterior and lower portion of the upper lobe, were consolidated, presenting a smooth, slate-grey appearance on section, with peribronchial thickening, but no appreciable dilatation of bronchi. A gangrenous cavity, partly old, but extending upwards into the upper lobe by more recent ulceration, occupied the upper part of the consolidated lower lobe, the posterior part of which was further riddled by small abscesses, possibly due to retained bronchial secretion, the bronchi being intensely inflamed. The larynx was also found ulcerated. The non-indurated portion of the upper lobe of the right lung was highly emphysematous, and so was the left lung, which was entirely free from induration and from pleural adhesion in any part. Microscopically the affected lung substance showed great interstitial and alveolar thickening in the most advanced parts, but also a gradation of changes showing that much of the new tissue had been formed by fibrillation and vascularisation of exudation material filling the alveoli, without the alveolar walls being much involved in the less advanced stages. In the vicinity of the centres of suppuration the alveolar walls and intra-alveolar tissue were richly infiltrated by leucocytes, the more delicately organised product within the air-cells becoming shrivelled and degenerate. Microscopic specimens showing these changes in the various stages were exhibited, and Dr. Coupland pointed out that the fact of the organisation of the intra-alveolar products of "croupous" pneumonia had been already described by Dr. Green in the later editions of his text-book on Pathology, and that it was a fact of great importance as showing clearly the inflammatory origin of certain forms of lung induration, which might otherwise be regarded as typical examples of "cirrhosis" or "fibroid degeneration." He added that in this case, as in most others of this kind, there was a history of chronic alcoholism. The kidneys showed advanced granular disease, and the liver was large and fatty.

THE PRESIDENT remarked on the beauty of Dr. Coupland's microscopic specimens, and on the correctness with which the appearances had been described.

THE NATURE OF CERTAIN OBSERVED RELATIONS BETWEEN DIPHTHERIA AND MILK.—NOTES UPON GARGET.

DR. BUCHANAN read a paper communicated by Mr. W. H. Power, in which the latter suggested a new view as to the relations between milk and certain epidemics of diphtheria, his suggestions being based upon his investigations into the causes of the recent outbreak of diphtheria in North London. Dr. Buchanan remarked that though the views to be enunciated were still of a somewhat speculative character, rather

indicating lines of research than embodying completed work, he was sure that, as the etiologists owed so much to pathologists, the latter in their turn would value suggestions from the former as to particular lines of pathological investigation. The line of research indicated by Mr. Power he thought very well worth following up. In the case of the North London epidemic he (Mr. Power) had found so unmistakable a connexion between the distribution of the disease and the supply of a particular milk as to force the conviction that the milk was the cause of the diphtheria. For the grounds of this conclusion he referred to his report on the outbreak. How, then, did the milk become capable of distributing the infection of diphtheria? It was found that the milk-supply came from two separate dairy-farms, the one at Muswell-hill, the other at Kilburn, both belonging to the same owner. Further, the Muswell-hill milk had at one time been observed to produce disease, the Kilburn supply being then innocuous; while at a later period the Kilburn milk had become morbific, almost to the exclusion of the Muswell-hill milk, so that there was reason to believe in the transference of a morbific agency from Muswell-hill to Kilburn. After careful and detailed examination of the whole circumstances, the only conclusion that could be arrived at was that some "personal" condition of the cow as cow, or some inherent property of the milk, had probably been the cause of the diphtheria. As regards the causation of milk epidemics generally, our present knowledge is as follows:—Of milk-typhoid epidemics, some have been clearly traced to contamination of the milk by means of infected water or air—the usual media for the spread of the disease where milk is not in question. But in a certain number of cases this intervention of infected water or air, though it cannot be excluded, appears very unlikely, even after the most painstaking inquiry. Though the association of the disease with a milk-supply is clearly made out, no source of infection of the milk can be detected, and the inquirer is forced in such cases to ask himself whether, if milk *per se* were capable of producing enteric fever in man, the observed facts would not tally better with such an etiology. In regard to scarlatina in its relations to milk, in no instance has the intervention of infected water ever claimed to be considered; the same may be said of air-infection, except as through direct human contamination of the milk; and, indeed, it is very seldom that any circumstances affecting the milk after its secretion have sufficed to explain its infectiveness. Here again, therefore, in the recorded cases of milk-scarlatina, observers have generally been compelled to entertain the probability that the cow as cow, and milk as milk, have been concerned in the production of the human affection. As regards milk-diphtheria, again, little has hitherto been observed. The epidemic referred to lends no support to any hypothesis that antecedent human cases are always wanted to render milk infective, and the outbreak would receive its readiest explanation in some condition proper to the cow herself or to her milk. Certain diseases in the cow are already known to be capable of producing diseases in man having considerably different clinical phenomena from those seen in the quadruped. Thus vaccinia is a disease *ejusdem generis* with human small-pox, yet it differs much in its severity and other particulars from its human analogue, affecting very slightly the amount of milk secreted by the animal. "Foot-and-mouth disease," again, is transferable by milk under certain conditions to man, causing aphthous affections with derangement of the stomach and bowels. We know, too, that miliary tubercle in the cow is capable of giving rise to similar lesions in animals, perhaps also in the human subject, consuming the milk. The anthrax-fever of cattle is also known to produce malignant carbuncular disease among those who have eaten the flesh, and a diphtheritic throat-affection among pigs that have been fed on it, or on the milk of affected animals. Another disease, not derivable from the cow, may be cited as showing that an affection hardly attracting any notice when affecting the quadruped may, on its transference to man, produce the most serious results—trichiniasis. With these facts before us, there would have been sufficient *primâ facie* reason for inquiring whether diphtheria, apparently resulting from the consumption of milk, might not possibly in some cases result from the condition of the cow as cow, or of her milk as milk, without the striking circumstantial probability furnished by the North London outbreak that no other explanation could be advanced. What kind of disease, then, in the cow will satisfy the conditions of the problem? Passing over the question of "specificity," we see that the cow disease must be one affecting only slightly the general health of the animal at the same time that it materially influences the milk. One such disease, not much attended to hitherto, but which Mr. Power considers eminently deserving of careful investigation, is known by the name of "garget." This malady attacks milch-cows at times, being chiefly characterised by its effects on the udders of the animals, their general condition being but very slightly influenced. Usually one or two (seldom more) quarters of the udder are invaded, the milk drawn from the affected teats being at first blood-stained, and afterwards mixed with slimy or ropy material. The diseased quarters become hard and swell, and their yield of milk is diminished or suppressed, while that from the sound quarters remains almost normal in quantity and quality. This affection may last from one to several weeks. Another affection of the udders of cows, probably also included under the name "garget" by agriculturists, is characterised by the admixture of blood with the milk, without any apparent lesion of the udder. Mr. Power learned these facts too late to make direct use of them in investigating the causes of the North London epidemic. The owner of the cows supplying the milk knew the disease "garget," but was not aware of its occurrence among his cows during the outbreak. But from the trivial character of the disease, Mr. Power had the impression conveyed to him that the cows in question, or some of them, might very well have suffered repeatedly from garget, or some such affection, without the fact necessarily coming to the knowledge of the owner of the cows. In garget, then, or some allied affection, we find a complaint in the cow exactly fulfilling the requirements above mentioned of injuring the milk without materially affecting the general condition of the animal, and one exceedingly likely to be passed unobserved. In conclusion, Mr. Power urged the advisability of the further study of garget in its possible relation to diphtheria in the milk-consumer.

The PRESIDENT remarked that here there was presented to the members of the Society a most important line of investigation, and that the study of some of the diseases of the inferior animals, and of their relation to disease in man, ought to receive more attention than had hitherto been the case. After reading Mr. Power's report on the North London outbreak, he could vouch for the accuracy of the statement that the connexion of the epidemic with the milk-supply had been clearly established. It was quite possible that certain diseases in man were derived from diseases in the lower animals to a much greater extent than was usually believed; while it was not at all necessary that the diseases thus connected should present similar clinical features in man and in quadrupeds. Thus, to add one example to those already mentioned, the hydrophobia of man is a totally different disease clinically from the rabies of the dog, and yet the latter undoubtedly produces the former. He had generally taken the view, in regard to milk-epidemics, that the milk had been contaminated by water, and though the suggestion that the cow might be the real originator of the human disease had been made before, it was quite new to him to find an authority like Dr. Buchanan and Mr. Power bringing it forward.

Mr. SMEE then read a paper embodying what facts he had been able to learn regarding Garget. Mr. Power having found that the North London epidemic of diphtheria was clearly attributable to the milk supply—which, however, seemed to have been quite free from pollution after leaving the cow,—had begun to suspect that an intrinsic condition of the milk resulting from some trivial or unobserved affection of the cows was the source of the mischief. Mr. Smee soon discovered that in the disease called garget the milk might be of a ropy or stringy character, while the general health of the animals was hardly altered. He even found, on careful inquiry, that the disease had affected his own cows on several occasions, so little importance being attached to the complaint that his bailiff did not think it worth while to mention the subject, although then engaged in collecting samples of diseased milk for Mr. Smee. Veterinary surgeons knew little of the affection, the cowkeepers usually treating the disease themselves without informing their masters, as they have a belief it often comes on from their ill-treatment of the animals, or carelessness in milking. Mr. Smee's own bailiff had informed him that the first intimation of the existence of garget in any of the cows had been the detection of sticky or slimy matter upon the strainer, and that the milk of one quarter was sufficient to spoil the milk of four or five cows for "setting"; but, if the milk were for immediate use, the dairymen might never discover the disease at all. He therefore

drew up a set of questions regarding this affection, the answers to which he had received from various parts of England and Wales. From these replies he inferred that under the generic name of garget were included more than one form of disease. One form of garget seemed to be of traumatic origin, as from blows on the udder, a poke with a horn, or the rupture of a vein through leaving the cow too long unmilked. Probably most cases of ropy milk arise from this form of garget. Calves fed on the milk of this kind of garget do not appear to deteriorate in health. A second form of garget seems to result from cold. It runs an acute course, and does not injure calves or pigs fed on the milk, and the general health of the cows themselves is apparently not affected at all. A third and rather rare form of garget may possibly be of a specific nature. In this variety the general health of the cow is involved, there being in one case loss of power on the side of the affected quarter, in others swelling of the glands, with symptoms of dyspepsia. The milk of this form also seems to produce scouring and wasting of the calves fed on it. The following is the analysis of milk from the affected quarter of a cow said to have had a vein ruptured by "stock-making" (*i.e.*, being left too long unmilked):—Total solids 11·97 per cent., fat 2·95, non-fatty solids 9·02, ash 0·62. Thus, though it was distinctly coloured, and had been so for six weeks, the milk differed little from the normal condition. No blood-cells were recognised microscopically. The tint was held to be due to a brown colouring matter of indefinite nature. Another specimen of milk from a cow recovering from an attack of one of the forms of garget gave the following results:—Total solids 11·7 per cent., fat 2·5, non-fatty solids 9·2, ash 0·76—a composition which would have justified a public analyst in passing the milk as good, especially as careful microscopy revealed nothing abnormal. It was mentioned as an apparently important coincidence, on which he left Dr. Jacob to write, that when diphtheria broke out in the Princess Mary's Home at Woking, garget existed at the dairy-farm which supplied the Home with milk. Mr. Smee concluded by pointing out that, although the chain of evidence connecting garget with diphtheria is at present incomplete, the possibility of the use of intrinsically diseased milk was a point worthy of attention in future outbreaks of diphtheria. He believed that a thorough investigation of milk in disease would reveal many facts of importance. Such an investigation, however, would be far beyond the power and means of private individuals, and the subject ought to be taken up by our scientific societies, or even by Government.

The PRESIDENT said that, even if there were time for discussing the very interesting communications of Dr. Buchanan, Mr. Power, and Mr. Smee, little additional information could be elicited in our present knowledge of the subject. He would therefore suggest that a committee be appointed to make a report on the matter. What we especially wanted was, more accurate knowledge than we have as yet of the anatomy of garget, and of the chemical and microscopical characters of the affected milk. He had learned that, should such a committee be appointed, the most ample opportunities would probably be afforded for investigation. He would therefore nominate the following Committee:—Dr. Buchanan, Dr. Burdon-Sanderson, Dr. Greenfield, Dr. Coupland, and Mr. Smee.

The business of the annual meeting, including the election of officers and Council, was then transacted, as reported in our issue of last week.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 10.

CHARLES MURCHISON, M.D., F.R.C.P., Vice-President, in the Chair.

ANNUAL MEETING.

DR. MURCHISON drew the attention of members to a by-law of the Society, which provides that, though a patient may be exhibited at any meeting, no paper on the case can be read which has not been submitted, at least one week previously, to the Secretaries of the Society. Dr. F. H. Hall and Mr. Johnson Smith were nominated to act as scrutineers of the ballot.

GASTRO-ENTEROTOMY FOR INTESTINAL OBSTRUCTION.

Mr. LAWSON then read the history of a case of intestinal obstruction, which had been under the care of Dr. Cayley and himself at the Middlesex Hospital, and for which Mr. Lawson performed gastro-enterotomy. H. C., aged twenty-three, a compositor, was admitted into the Middlesex Hospital under the care of Dr. Cayley, on June 3, 1878. For the last six weeks he had been somewhat costive, and had suffered occasionally from colicky pains. The bowels acted every day, but the motions were scanty, and composed of small hard lumps. On May 29, while at work, he was seized by an attack of colicky pain much more severe than the previous ones. In the evening he vomited, and he states that the matters brought up had a fæcal smell. The bowels had acted that morning, but there was no motion afterwards up to the time of his admission. During the following three days he had frequent retching, but brought nothing up, and he took no food except a little milk; the colicky pains continued unabated. His medical attendant had given him sulphate of magnesia, and several enemata. State on admission: The countenance was natural and free from anxiety; the tongue was thickly coated; there was a slight blue line on the gums of the lower jaw. He complained of a twisting pain in the belly, especially on moving. It was most marked in the umbilical region, and though constant, was aggravated by frequently recurring paroxysmal exacerbations. The abdomen was considerably distended, with some tenderness on deep pressure in the umbilical region. There was marked fulness in the epigastric region, below which there was a slight depression. On percussion there was tympanitic resonance in the epigastric, right hypochondriac, lumbar, and iliac regions. In the umbilical the resonance was less markedly tympanitic on the left side; there was dulness in the iliac and lumbar regions, but it was noticed that the position of the dulness sometimes shifted across to the right side. The circumference of abdomen at the umbilicus was thirty-three inches. The patient belched up wind, but had passed none per anum since the 29th. The urine was abundant; specific gravity 1037, free from albumen. Respirations 24; temperature 99·2°; pulse 108. The patient was placed on his elbows and knees, a flexible tube passed as high as was practicable, and an enema of warm water administered by a syphon from a vessel placed eighteen inches above the level of the anus. It was not found possible to administer more than two quarts of fluid, which caused considerable distress from a feeling of distension. The enema returned quite free from fæcal matter. Digital examination of the rectum gave negative results. Ordered extract. opii gr. ss. every four hours. After two pills, the pain was relieved, and the patient fell asleep. The patient continued to get worse; the pain increased, the belly became more distended; and on June 5 he vomited a flaky yellow fluid a with distinct fæcal odour. On June 6; the symptoms were still unrelieved, notwithstanding repeated doses of opium, and repeated enemata. He continued to vomit stercoraceous matter. The temperature had risen to 101·2°; the belly was more distended, and there was tenderness. As peritonitis was beginning, it was thought that further delay in resorting to an operation was undesirable; it was therefore decided that a search should be made for the obstruction. The patient having been placed under ether, Mr. Lawson made an incision in the median line of abdomen, commencing just below the umbilicus. The coils of intestine were seen greatly distended, and with a red velvety appearance, but still shining, and without any deposit of lymph on them. On passing his hand into the abdomen, Mr. Lawson felt a portion of the intestine tightly distended to beyond the size of the adult stomach, and extending from just below the liver on the right side downwards to the right iliac, and across the belly to the left iliac region. From the fixity of the intestine he concluded that it was the cæcum. He failed to detect any band or constriction, or collapsed portion of the intestine. He now endeavoured to unravel the small intestine by withdrawing it, and replacing it through the wound coil by coil; but this proceeding was found impracticable, in consequence of the excessive distension of the gut. A considerable portion of the intestine was therefore withdrawn from the abdomen to give room for further exploration; and on again introducing the hand, nothing could be detected but the enormously distended piece of intestine which was supposed to be the cæcum. This portion of the viscus was now punctured with a large trocar close to the lower end of the wound in the abdominal walls, and a large chamber-vessel full of liquid fæces was drawn off. The canula was now withdrawn, and a large indiarubber tube, about six inches in length, and of the size of the finger in circumference, was introduced through the opening the trocar had made, and the end of the tubing was brought

out through the bottom of the wound in the abdominal walls. A single suture was applied to one edge of the opening in the intestine, and fastened to the lower cut edge of the abdominal wall, but owing to the fixity of that portion of the intestine, it was found impossible to draw it sufficiently forward to unite it completely to the edges of the external wound. The intestines were then, after some difficulty, returned, and the wound closed with sutures in the usual manner. The parts were dressed with carbolic oil and a compress, and a well-fitted bandage applied to keep the whole *in situ*. During the progress of the operation, as the intestines were drawn from the abdominal cavity they were covered with flannel, made moist and warm by being wrung out of hot water. This flannel happened to be quite new, and consequently the fluff from the flannel adhered to the peritoneal surface and remained attached when the bowels were replaced into the abdomen. The small intestines, as before stated, were greatly distended, so as to approach in size the normal colon. In returning these into the abdomen, the peritoneal coat in two places cracked to the extent of about three-quarters of an inch. Each of these peritoneal wounds Mr. Lawson closed with a continuous suture of fine silk, such as is used in operations on the eye, taking care that the needle perforated only the peritoneal covering, and did not wound the muscular coat of the bowel. The patient was then returned to bed. A profuse discharge of liquid fæces continued to take place through the tube. The next morning his pulse was 160, small and sharp; temperature 103°; belly much distended; has had no more vomiting, and has passed flatus per anum. A free discharge of fæces continues through the tube. He continued to improve from this date; he had no further vomiting; and on the 11th, the fifth day after the operation, he passed a copious semi-fluid motion per anum. After the stitches were removed, the abdominal wound gaped a little, but the edges were kept in apposition by adhesive plaster and a bandage round the abdomen, and ultimately the wound united by granulation, leaving at the lower end a small fistulous track, through which a small quantity of fæces continued to escape. The patient left the hospital for the Eastbourne convalescent establishment in the second week of October, but, after having been there a fortnight, he was sent back with symptoms of obstruction, and distension of the belly. A large enema gave him relief, but, unfortunately, he has had several recurrences of obstruction. The bowels seem to have lost much of their power of propelling onwards their contents, and, as they have probably become more or less adherent to the walls of the abdomen and to each other, a complete block may at any time occur, for which a right lumbar colotomy will afford the only chance of relief.

Dr. Murchison said the case reminded him of one which occurred in Scotland. Both were illustrative of what might be done in certain cases with peritoneal injuries. There a boy while bathing had his abdomen ripped open, and thus it remained for some time; the bowels, though covered with sand, were, after being carefully washed, returned, and the boy did well. He would like to know what in the present case was supposed to be the nature of the obstruction. The patient was a young man; there was no history of cancer or anything of that kind. there was no intussusception, but the obstruction was low down in the colon.

Mr. Lawson thought the obstacle was caused by a kink in the intestines, which had been got rid of by the manipulation.

Dr. Cayley said that before the operation the seat of the obstruction had been uncertain; but, though evidently low down, it must be remembered that two quarts of fluid were retained. The hard swelling in the left groin could hardly be fæcal.

Mr. Cripps spoke of the case of a boy which had occurred in the Great Northern Hospital. He had been the subject of an accident, and since that time had suffered from colicky pains, but this was succeeded by sudden and intense pain, with vomiting and constipation. He thought this was due to mechanical obstruction, and found he was compelled to open the abdomen. This was done by a small incision, and the intestine was gradually drawn out to a certain point. Here he found the obstruction, which he relieved, and returned the bowel. The patient did well for a few days, but after that died from peritonitis. He thought the operation had been too long delayed, as the opium at first exhibited seemed to mask the disease.

Mr. Bryant congratulated Mr. Lawson on the result of his case, one which could have hardly been anticipated. The history, he thought, pointed to an acute obstruction added to some chronic trouble, such as might be caused by a matting together of a part of the intestine by previous peritonitis. A point of great importance in these cases was to operate early—in fact, immediately a mechanical obstruction was diagnosed. No doubt in this case lumbar colotomy would have been sufficient, though this could hardly have been anticipated; but he thought that opening the bulging intestine, after the manner of Nélaton, would have been here the best procedure.

Mr. Thomas Smith allowed that waiting was prejudicial; but the first point was to make a diagnosis, and this was often most difficult. He recalled a case where sudden pain and vomiting had set in. The patient remained in the hospital for fourteen days, and died unrelieved, for at that time abdominal section was not readily undertaken. The post-mortem disclosed an acute enteritis with a sloughing patch of intestine, such as no operation could have benefited. Three days ago he saw a boy who had been attacked, about Christmas, with vomiting and sudden pain. The abdomen was not much distended, and mucus was passed per anum. He had diagnosed an enteritis, but after death a band was found strangulating a diverticulum of small intestine. In another case there had been the same symptoms of acute strangulation, where he had diagnosed volvulus. An operation through a small opening was performed; a band was found, and the intestine released; but the patient, who had taken the anæsthetic badly, died in half an hour—from the effect of the ether, as he believed.

Mr. Hulke quite agreed that the diagnosis was often a matter of great difficulty; the acuteness of the vomiting and the seat of the pain he had often found fallacious guides. In one case, where the symptoms were acute and severe, they were found to depend on an abscess in Douglas's pouch. In a second, where the vomiting was immediate and uncontrollable, the obstruction was at the lower end of the small intestine. Having had an opportunity of witnessing the present operation, he still believed the obstruction to have been caused by a band constricting the hepatic flexure; and the cause of this band was to be sought in the history of the burn, and its attendant suppuration—conditions which were known to be often followed by peritonitis or ulcer.

Mr. Heath criticised the treatment of the distended intestine by puncturing it with a trocar and inserting a drainage-tube, while no attempt was made to attach the intestinal wall. Escape of the intestinal contents might so easily have taken place into the peritoneal cavity. He also thought that the probability of a band constricting the colon in some part of its course was great. He referred to Mr. Teale's treatment of a similar case, who had, without opening the intestine, closed the abdominal wound and done a lumbar colotomy, and thought that this would be a better treatment to adopt in future.

Dr. Buzzard believed that the future history of this case would be still more interesting. The fact that two quarts of fluid were retained negatived, in his opinion, the idea that the obstruction could be very low down. He quoted the case of a young man who had recovered from two attacks of obstruction—one of which, at least, he believed to have been dependent on a strangulating band—under a free administration of opium.

Dr. Burney Yeo had received an altogether different impression from the history. A distended condition of the intestine had been described which it would have been useless to treat by opium—a treatment which, in his opinion, had been too often fatal.

Mr. Howse thought that the mere emptying of the intestines was often enough to relieve obstruction where a band was the cause of the strangulation, just as in a strangulated hernia evacuation of the contents of the bowel often allowed replacement to beeffected. He allowed that the diagnosis of such cases was often difficult, but the treatment of a clear case of mechanical obstruction by opium could only be prejudicial. After tapping it was a serious objection that the puncture so often allowed oozing to occur. It was of little use then to sew up the hole; the punctures by the needle increased the difficulty.

Mr. Hulke entirely agreed with the remarks of the last speaker, that to tie the puncture often added to the danger, for, in spite of all care, the intestinal wall was most easily cut through by the ligature.

Mr. Croft considered that here the value of antiseptic precautions was most valuable. Flannel, which had been objected to by Mr. Bryant for covering the protruded intestine, was

perfectly harmless if antiseptic. The peritoneum tolerated larger and harder foreign bodies than the hairs from flannel, provided that they were antiseptic.

Dr. A. P. Stewart wished to call attention to the importance of substituting belladonna for opium in the treatment of such cases.

Dr. Cayley, in replying, said that he was responsible for the delay in operating, but he could not allow that the symptoms were too urgent for this delay. Just before the operation the man had been reading the newspaper.

Mr. Lawson added that he had no alternative but to puncture the intestine, otherwise the small gut could not have been replaced. Dr. Buzzard, he thought, had not noticed that the fæcal vomiting which had existed for twenty-four hours before the operation, had ceased after it, and the patient uninterruptedly got well.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—At the examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, January 6, 7, 8, and 9, the following candidates were successful:—

For the licence to practise Medicine—

Lewellin, Augustus John Richard. | O'Shaughnessy, Patrick Jas. Barry.
Thompson, Andrew Colquhoun.

For the licence to practise Midwifery—

Forster, Henry Blackett.
Gibson, Joseph.
Gordon, Robert.
Johnston, John Reid.
O'Shaughnessy, Patrick Jas. Barry.
Thompson, Andrew Colquhoun.

Royal College of Surgeons in England.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 10th inst., and when eligible will be admitted to the pass examination, viz.:—

Black, William G., student of the Newcastle School.
Bond, Richard P., of King's College Hospital.
Bray, Ernest E., of the Middlesex Hospital.
Collins, George W., of University College Hospital.
Cutfield, Arthur, of the Cambridge School.
Eames, William, of the London Hospital.
Farmer, Septimus, of King's College Hospital.
Hamilton, G. Clarendon, of the London Hospital.
Hawksworth, Herbert B., of Guy's Hospital.
Haynes, Walter F., of the Middlesex Hospital.
Herbert, Charles A., of the Westminster Hospital.
Jones, Thomas H., of St. Bartholomew's Hospital.
Legge, William H., of the Westminster Hospital.
Liddard, Sydney R., of University College Hospital.
Luscombe, Thomas B., of Guy's Hospital.
Maberly, Henry E., of the Birmingham School.
Peché, John, of the Leeds School.
Pizey, George F. P., of Guy's Hospital.
Revell, George P., of St. Mary's Hospital.
Richardson, Frank L. C., of St. Bartholomew's Hospital.
Weldon, George, of the Cambridge School.

The following gentlemen passed on the 13th inst.:—

Ackery, John, student of the Middlesex Hospital.
Alexander, Alex. C. A., of Cambridge and St. George's Schools.
Appleford, Stephen H., of the London Hospital.
Bradley, Joseph, of the Manchester School.
Brodrick, Charles C., of Guy's Hospital.
Day, Thomas M., of Guy's Hospital.
Fuller, Henry R., of the Cambridge and St. George's Schools.
Holton, Francis W. P., of St. George's Hospital.
Norvill, Frederic H., of King's College Hospital.
Pike, Charles J., of University College Hospital.
Stevenson, Henry W., of St. Bartholomew's Hospital.
Taylor, Benjamin R. A., of Guy's Hospital.
Taylor, Charles A. A., of University College Hospital.
Treherne, Francis H., of St. Bartholomew's Hospital.
Vise, Christopher, of University College Hospital.
Wells, Albert P., of the Cambridge and St. George's Schools.

The following gentlemen passed on the 14th inst.:—

Anderton, James E., student of Guy's Hospital.
Ansted, Hugh L., of King's College Hospital.
Beattie, Henry, of St. Bartholomew's Hospital.
Carter, D'Arcy B., of the Leeds School.
Coates, Gilbert H., of University College Hospital.
Davies, Sievwright A., of Guy's Hospital.
Doudney, George H., of St. Thomas's Hospital.
Evans, Sidney T. M., of Guy's Hospital.
Leigh, Frederick, of St. George's Hospital.
Lewis, William H. P., of St. George's Hospital.
Matthews, Samuel R., of King's College Hospital.
Perkins, Alfred T., of Guy's Hospital.
Rowley, Charles, of University College Hospital.
Shaw, John A., of University College Hospital.
Spong, John F., of Guy's Hospital.
Spong, William, student of Guy's Hospital.
Stokes, Lennard, of Guy's Hospital.
Thomson, Wilfred B., of the Sheffield School.
Willett, George G. D., of the Bristol School.

The following gentlemen passed on the 15th inst.:—

Ashton, Charles E., student of St. Bartholomew's Hospital.
Beecham, William, of St. Bartholomew's Hospital.
Bell, William T., of St. Bartholomew's Hospital.
Bradshaw, James H., of St. Bartholomew's Hospital.
Brown, Charles, of the Birmingham School.
Coxwell, Charles F., of the Cambridge School.
Dingley, Arthur W., of University College Hospital.
Dixon, George F., of Guy's Hospital.
Duckworth, Frederick V., of Guy's Hospital.
Holthouse, E. H., of Cambridge and King's College Hospitals.
King, Thomas M., of St. Mary's Hospital.
Montford, James, of St. Bartholomew's Hospital.
Morris, Thomas R. B., of the Westminster School.
Mullis, George W., of Guy's Hospital.
Phelps, Philip, of St. Bartholomew's Hospital.
Taylor, Frederick E., of the Charing-cross Hospital.
Williams, Herbert E., of University College Hospital.

Apothecaries' Hall, London.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, January 9:—

Payne, Charles Alexander, Astley Bank, Alexander.

The following gentleman also on the same day passed his Primary Professional Examination:—

Abbott, Thomas Easton, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

Bridges, Ashley C., L.S.A.—Assistant House-Surgeon to the Cumberland Infirmary, Carlisle.

NAVAL, MILITARY, &c., APPOINTMENTS.

War Office.—Medical Department.—Surgeon-Major John Edward Moffatt to be Deputy Surgeon-General, *vice* Thomas Connor O'Leary, M.B., retired upon temporary half-pay; Surgeon-Major Joseph Salkeld Johnston, M.D., retires upon half-pay.

India Office.—Madras Medical Establishment.—To be Surgeons-Major: Surgeons Daniel Frederick Bateman, Edward Forster Brockman, James Forbes Sargent, Henry Hyde, and John William Strong.

Bombay Medical Establishment.—To be Surgeons-Major: Surgeons William Nolan, M.D., and Samuel O'Brien Banks.

BIRTHS.

Caddy.—On January 10, at 16, Fulham-road, South Kensington, the wife of J. T. Caddy, M.D., Deputy Inspector-General of Hospitals and Fleets, of a son.

Cotton.—On January 15, at 8, Sloane-terrace, S.W., the wife of Holland J. Cotton, M.D., of a son.

Male.—On January 10, at 1, North Side, Victoria-park-square, the wife of Henry D. Male, L.R.C.P. Lond., of a daughter, stillborn.

Pugh.—On January 8, at 16, Cobham-terrace, Greenhithe, the wife of John H. Pugh, B.A., M.R.C.S.E., etc., of a daughter.

Smith.—On January 10, at 29, Charles-street, Berkeley-square, the wife of Barton Smith, M.D., of a daughter.

Soper.—On January 11, at 283, Clapham-road, the wife of William Soper, M.R.C.S. Eng., of a daughter.

Vachell.—On January 8, at 51, Crockherbtown, Cardiff, the wife of Charles Tanfield Vachell, M.D. Lond., of a daughter.

Ward.—On January 11, at Fort Ayr, N.B., the wife of Espine Ward, F.R.C.S.I., Surgeon-Major A.M.D., 61st Brigade Depôt, of a son.

Ward.—On January 14, at Learoyd House, Harrogate, the wife of William J. C. Ward, L.R.C.P. Edin., of a daughter.

MARRIAGES.

Briggs-Cooke.—On January 8, at Bath, G. Chapman Briggs, M.B., of Harrow-on-the-Hill, to Emma Mary Elizabeth, only daughter of Henry Edward Cooke, Esq., of Bury, Alverstoke, Hants.

Dawson—Williams.—On November 29, at Heidelberg, Transvaal, South Africa, F. Bignell, youngest son of William Dawson, F.R.C.S., of Jersey, to Mary Frances, second daughter of the late J. H. Williams, M.D., of Royal-avenue, London, S.W.

Galloway—Fogarty.—On January 14, at Brixton, Arthur Wilton Galloway, M.R.C.S., to Louisa Warde, daughter of the late George Taylor Fogarty, Surgeon 10th Regiment B.N.I.

Hart—Wybrants.—On January 8, at Shepton Mallet, Francis J. Hart, Esq., eldest son of James Hart, Esq., of Copsewood Grange, Warwickshire, to Emily Charlotte, elder daughter of Jonathan Wybrants, M.D., of Shepton Mallet.

Moorhead-Dibben.—On January 9, at Bournemouth, John Moorhead, M.A., M.D., and J.P., of Weymouth, to Harriette Fanny, eldest daughter of Harry Dibben, Esq., of Crichel, Dorset.

Shimeld—Sullivan.—On January 7, at Forest Gate, James Shimeld, of 4, Manor-villas, Manor-park, to Winifred, only daughter of E. W. Sullivan, M.D., of Melcombe Lodge, Ilford, Essex.

Stewart—Maddox.—On January 7, at St. Matthew's, Oakley-square, Howard Douglas Stewart, L.R.C.P. Lond., of King's College Hospital, to Helen Clara Alison, eldest daughter of John Maddox, Esq.

DEATHS.

BEHREND, PRISCILLA, wife of Henry Behrend, M.R.C.P. Edin., at 26, Norfolk-crescent, Hyde-park.

BEIGEL, HERMANN, M.D., at Vienna, on January 10.

GREGORY, ANNE, wife of Edward Gregory, M.R.C.S.E., at 22, Spring-street, Baker-street, on January 11, aged 72.

MASON, MAURICE, M.R.C.S., L.S.A., at Sudbury, Suffolk, on January 13, aged 75.

OTWAY, CHARLES WILLIAM CARROL, F.R.C.S. Eng., at 13, Kennington-park-road, on January 10, in his 64th year.

WEBSTER, ALEXANDER BINNY, late of the Bengal Medical Service, at 18, Wariston-crescent, Edinburgh, on January 8.

WEBSTER, GEORGE MURRAY, M.D., Deputy Inspector-General of Hospitals, at Balbruddery, Oimara, New Zealand, on November 11, in his 61st year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL ROYAL INFIRMARY.—Medical Superintendent. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, or Masters in Surgery of one of the Universities of the United Kingdom, and also possess a registered medical qualification. Applications, with testimonials, to the Secretary, on or before January 23.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Candidates for the office may obtain particulars of the appointment from Francis Baily, Secretary.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified and registered. Further information may be obtained from Dr. Aitken, Medical Superintendent, to whom testimonials must be forwarded not later than February 8.

LIVERPOOL DISPENSARIES.—Two Assistant House-Surgeons. Applications, accompanied by candidates' registered certificate of qualification and testimonials (which will be returned), to the Secretary, 34, Moorfields, Liverpool, on or before January 22.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Applications, with testimonials, to the Hon. Secretary, Tiverton.

UNIVERSITY OF LONDON.—Registrarship. Candidates are invited to send in their applications not later than February 1, 1879. Further information may be obtained on application to Thomas Douse, Clerk to the Senate, University of London, Burlington-gardens, W.

WARRINGTON INFIRMARY AND DISPENSARY.—Resident Surgeon-Apothecary. Candidates must produce qualifications similar to those required from candidates for medical appointments under the Local Government Board, together with testimonials relating to professional education and moral character. Applications, with testimonials, stating if married or single, family, etc., to Joseph Davies, Hon. Secretary.

WINDSOR ROYAL INFIRMARY.—House-Surgeon. Applications to the Secretary, on or before January 22.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Tadcaster Union.—Mr. J. E. Ellerton has resigned the Aberford District; area 19,385; population 5920; salary £46 10s. per annum.

Toxteth Park Township.—The First District is vacant by the death of Mr. Albert Edward Carter; salary £125 per annum.

APPOINTMENTS.

Caistor Union.—Alexander Cameron, M.D. and C.M. Glasg. Univ., to the First District and the Workhouse.

Watford Union.—Alexander D. Murray, M.B. and M.C. Edin., L.R.C.S., L.R.C.P. Edin., to the Rickmansworth District.

WE are happy to learn that Dr. James Caithness has been appointed Deputy Coroner for the county of Denbigh.

AT the quarterly meeting of the directors of the Naval Medical Compassionate Fund, Dr. T. Nelson, Inspector-General, in the chair, a sum of £65 was distributed among the various applicants.

THE NEW SENATORS.—Among the sixty-six senators just elected, five belong to the medical profession, viz., Drs. Théophile Roussel, Dufay, Comparan, Callen, and Combescure.—*Gaz. Méd.*, January 11.

THE PARIS ACADÉMIE DE MÉDECINE.—The officers for the present year are M. Richet, President; M. Henri Roger, Vice-President; M. Bergeron, Annual Secretary; and M. Béclard, Perpetual Secretary.

MRS. R. RAVENHILL, widow of the late Edmund Burton Ravenhill, M.R.C.S., L.S.A., Wolverhampton, and formerly Matron of the Wolverhampton General Hospital, has, on the recommendation of the Committee, been unanimously elected, by the Court of Governors, Matron of the Devon and Exeter Hospital, to succeed Miss Bull.

DR. ZIEGLER has been promoted from the office of Privat-docent of Pathological Anatomy at Freiburg to that of Extraordinary Professor of the same subject.

BRISTOL ROYAL INFIRMARY.—Mr. F. R. Cross has been appointed a Surgeon to this institution, *vice* Tibbits, deceased. Mr. J. G. Smith has also been appointed a Surgeon, *vice* Steele, resigned. Mr. W. H. Harsant has been appointed Assistant-Surgeon, *vice* Cross, promoted.

INDIAN MEDICAL SERVICE.—An examination of candidates for appointments as Surgeons in her Majesty's Indian Medical Service will be held on Monday, February 17, and following days. There will be fourteen appointments to be competed for. All necessary information on the subject can be obtained at the Military Department, India Office.

PROF. MOLESCHOTT, who has been Professor of Physiology at Turin for a considerable period, has just received a "call" to the University of Rome. Whether he will accept it is at present doubtful; and the professors and students of Turin have made a great demonstration in order to induce him to remain with them.—*Allg. Wien. Zeit.*, December 17.

A BALNEOLOGICAL CONGRESS.—The balneological section of the German Gesellschaft für Heilkunde will meet on January 24-26, 1879, and its members will discuss the treatment of "tabes dorsalis," chronic metritis, etc., by baths, and the effects of certain warm springs on the tissue-changes of the body. Among other subjects of earnest discussion will be a public supper and a public dinner.

PROF. SKODA.—At the Vienna Medical Society, its President, Prof. Bamberger, congratulated with heartfelt warmth Prof. Skoda on his recovery from his painful illness, this being the *savant's* birthday. "Delighted are we all," he said, "to be able again to assure our venerated master of the love and honour we bear him, and heartily do we hope that he may long continue with undisturbed health in our midst." Loud cheers and a general hand-shaking followed.—*Allg. Wien. Zeit.*, December 17.

SALICYLIC ACID ENEMATA IN DYSENTERY.—Dr. Berthold employs an enema consisting of one gramme of salicylic acid, 300 grammes of distilled water, and alcohol q.s. In dysentery with tenesmus and bloody stools he administers it every four hours. The tenesmus diminishes, and the number of the stools is rapidly reduced, the fæcal matters gradually acquiring their normal appearance, the temperature diminishing, and the appetite returning.—*Union Méd.*, January 9.

BANQUET TO M. BARDOUX AT THE FACULTÉ DE MÉDECINE.—Impressed with the earnestness with which M. Bardoux, the present Minister of Public Instruction, has put into force projects for the improvement of the condition of the Faculté, which his predecessors contented themselves with promising, this learned body entertained him at a grand banquet on the 9th inst., in one of its own *salles*. It seems to have gone off most satisfactorily, and during the evening there was also a *soirée* held, to which had been invited a great number of guests who had been formerly attached to the Faculté in various capacities, so that more than 150 persons were present. Under M. Bardoux's rule the Faculté has received a large extension of its premises, an increase in the emoluments of its professors, additions to the number of its chairs, etc.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—The next meeting will be held on Friday, January 17, be 7.30 p.m. The minutes of the last meeting will be read. The report of the Council will be read on the following subjects:—1. A Bill "to remove disqualification by Medical Relief for Infectious or Contagious Disease." 2. A Bill to amend "The Artisans' and Labourers' Dwellings Act, 1868" (Torrens' Act). Correspondence: A letter and report from the Metropolitan Asylum District Board. A letter from the Northumberland and Durham Medical Society. Edric Bayley, Esq., M.A., 37, Bury-street, St. James's, and Dr. Willoughby, Canonbury, will be balloted for as Associates. G. P. D. Thomas, Esq., will read a paper on "The Present System of Registration of Deaths, with Suggestions for its Improvement." Dr. W. N. Thursfield, Shrewsbury, will read a paper on "Contagious Cynanche (Diphtheritic Sore Throat), with special reference to the Sanitary Dangers of the Present Custom of Nomenclature."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. C. J. Egan.—Received with thanks.

SCARLATINA OR DIPHTHERIA?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In looking at Clarke's "Medicinæ Praxeos" (London, 1800), on "Scarlatina Anginosa," amongst other symptoms I found the following:—"Tonsillæ tument, rubent et nonnunquam crustis albidis obduruntur." Does this in any way refer to diphtheria? Will some kind correspondent render it into English. I am, &c., G. J. S. C.

Bicycles.—The Surrey magistrates have resolved that bicycle riders shall not drive their bicycles on the footpaths, that they shall at all times carry an efficient bell, and between sunset and sunrise a good light. If such regulations were generally adopted, much of the present nuisance from bicycles would be obviated. The use of the bicycle having been sanctioned by the Board of Inland Revenue to certain of their officers and supervisors, on which to go their rounds, the machine has become an officially recognised vehicle of transit, and should be subject to some general code of traffic regulations.

A Fever-stricken Ship.—A Board of Trade inquiry has been held at Liverpool with reference to the brigantine *Ibis*, and an outbreak on board of yellow fever. It appeared the crew were attacked with yellow fever as they lay at Benin, on the West Coast of Africa. Before sailing, one of the men died, and during the voyage home the whole of the crew were stricken with the malady. The mate also died; and a third member of the crew had succumbed since arrival in England. The witnesses examined in court were still suffering severely from the fever, and could scarcely speak. The Commissioner objected to their being brought into court under the circumstances, but, after hearing all the evidence, exonerated the master from all blame.

Aqua Pura.—The total depth of the artesian well now being bored for the vestry of Richmond, Surrey, prescribed by the contract is 415 feet. The sinking has reached the chalk, and the contractors are expecting to obtain sufficient water before reaching the maximum depth, 415 feet.

Marryatt.—According to the French census of December, 1876, the number of children under fifteen years of age was only 29 per cent., and of adults above fifteen years 71 per cent., thus: under fifteen years 10,008,000, from fifteen to sixty 22,527,000, and sixty 4,861,000. In England, children under the above age form about 36 per cent. of the population, and persons above fifteen years 63 per cent.

River-Steamers and Drink Traffic, Scotland.—The Perth Town Council have resolved to memorialise the Home Secretary and the Lord Advocate on the present system of licensing river-steamers for the sale of spirituous liquors. They have also resolved to co-operate with the city of Glasgow and other towns in an endeavour to obtain an amendment of the present law.

The Royal Navy and Haslar Hospital.—It is announced that lunatics belonging to the Royal Navy, who have hitherto been sent to the Haslar Hospital, are to be made chargeable to the union; and on the parish (Alverstoke) in which the Hospital is situated will devolve the responsibility of ascertaining the settlement of the patients.

Cattle Importations, 1878.—The Canadian Government Agent at Liverpool reports that 32,115 head of fat cattle (62,461 sheep and 1798 pigs) were exported from Canada to Great Britain, by way of Canadian and United States ports, during the year 1878. The importations in 1877 were 7412 cattle, 6825 sheep, and 373 pigs; and in 1876, 2767 cattle and 2607 sheep.

Alleged Cure for Intemperance.—Dr. D'Unger, Chicago, it is reported, has discovered a cure for intemperate habits. The medicine is red Peruvian bark (*Cinchona rubra*), designated by druggists "quill bark," because it comes from twigs about the size of a quill. A pound of this bark is reduced to powder, and soaked in a pint of diluted alcohol. It is then strained and evaporated down to half a pint—that is, a pound to a half-pint. The inebriate is given a teaspoonful of the medicine every three hours, and his tongue occasionally moistened between the doses during the first and second days. The third day the dose is generally reduced to half a spoonful, then to a quarter of a spoonful, and gradually lessened to fifteen, ten, and five drops. This treatment is continued for from five to fifteen days, and in bad cases to thirty days; the average is about seven days. Dr. D'Unger, it is stated, has cured nearly 3000 cases of the most depraved forms of intemperance by this new remedy. Moreover, it appears to be engaging the attention of physicians and temperance advocates of Chicago. One common effect produced by it is a subsequent strong dislike to liquor in any form.

Death of a Coroner.—The coronership of the East and North Division of Cornwall is vacant by the death of Mr. Thomas Good, surgeon, of Launceston, Cornwall, who died on the 30th ult., aged seventy-four years. Mr. Good pursued his medical studies at Guy's and St. Thomas's Hospitals; became L.S.A., 1828, and M.R.C.S., 1842; was Consulting-Surgeon to the Launceston Infirmary and Home Dispensary; and had held the office of Coroner for many years.

Indiarubber Trees.—The Indian Government is attempting to enrich the Peninsula with new varieties of useful trees, especially those which produce caoutchouc. The *Ficus elastica*, or wild fig-tree, produces the East Indian caoutchouc. This belongs to the natural order *Moraceæ*, and is therefore closely akin to many of the most familiar of our Indian trees, the sacred peepul, the beneficent banyan, the various species of the fig tribe, and many others only less familiar. The caoutchouc trees of South America, on the other hand, belong to the order *Euphorbiaceæ*. It was with the view of studying the American varieties in their native home, that Mr. Cross was deputed to visit Brazil, and report on the Para rubber (*Hevea Brasiliensis*), the Ceara rubber (*Manihot glaziovii*), the rubber of Central America (*Castilloa elastica*), and the balsam of white copaiba, an important member of the *Copaifera* species. —*Madras Mail.*

Scrutator.—The Artisans' Dwellings Act was passed in 1875, and the Metropolitan Board of Works has the enforcement of its provisions in the whole of London except the City. Parliament has sanctioned a large number of the Board's schemes, but the Board has done very little towards carrying them out. Its expenditure on this object in the past year was only £5992; in the year now begun it is estimated that the outlay will be £31,580.

Bibliopole.—In a few words, the following is a short history of the collection of medical portraits:—It owed its origin to the unfortunate Mr. Fauntleroy, the eminent banker of Berners-street, who presented it to Mr. Wadd, and at his death was dispersed—the College of Surgeons, the late Mr. G. J. Squibb, and Mr. T. M. Stone becoming the possessors; and at the death of Mr. Squibb, we believe his widow presented the fine collection to the Royal Medical and Chirurgical Society, with a few autographs of the originals. Mr. Stone has the largest collection of medical autographs.

Dens Sap.—It is stated that about 5000 dentists have been entered on the Register.

M.D., Great Yarmouth.—Mr. Frank T. Buckland, M.A. Oxon., one of H.M.'s Commissioners on the subject you have so much at heart, is a Member of the Royal College of Surgeons of England of 1851.

The Norfolk County Pauper Lunatic Asylum.—Extensive additions are being made to this institution, on which £13,000 has already been expended, and £9000 more has just been voted by the county magistrates to complete the work.

Paterfamilias.—Yes, it is stated that Surgeon-General Balfour has written to the Under-Secretary of State for India, inquiring if there is any truth in the report prevalent in Madras, "that the Indian Medical Service is to be closed for the next six years, the British Medical and the Navy being only open to competition; the Indian appointments are to be mere civil surgeoncies, and are to be given to men who are thought competent for them." The Military Secretary for India has replied that no information such as that mentioned has been received from the Government of India.

The late Mr. Hilton.—The sale of the effects of this gentleman, recently deceased, took place at his residence, New Broad-street, City, and attracted but little attention, as comparatively few members of the profession knew anything about it.

A Desirable Acquisition.—It has been reported to the Bethnal-green Board of Guardians that the works at the well on the workhouse premises had been stopped by the contractors, the object desired having, in their opinion, been attained. The boring had been carried to a depth of 301 feet from the surface, and a supply of water had been obtained which seemed practically inexhaustible. The necessary pumps and fittings have in consequence been ordered to be erected forthwith.

Provincial Sanitary Works.—The Local Board of Calne, Wilts, has decided to apply to the Public Works Loan Commissioners for a loan of £5000 for carrying out sewerage works. At Alfreton, owing to the pit-working in the neighbourhood, the supply of water for some years has been becoming deficient; and the Belper Rural Sanitary Authority are taking steps to procure an adequate supply from Lindway-lane and Butterley, a distance of five miles from Alfreton, and so much above the town level that the water can be conveyed by gravitation. The estimated cost is £18,000.

Violet Powder.—The Vestry of St. Giles', Camberwell, summoned an oil-shop keeper, of Sumner-road, Peckham, at the Lambeth Police-court for selling adulterated violet powder. On behalf of the prosecution, it having been stated that they had no wish to press the case against the defendant, but desired to put a stop, if possible, to the sale of such adulterated articles, a fine of 2s. and costs only was inflicted.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—El Siglo Médico—Révue Médicale Française et Etrangère—Boys' Own Paper—Glasgow Medical Journal—American Practitioner—Canada Medical and Surgical Journal—Gazzetta Medica Italiana—New York Medical Journal—Boston Journal of Chemistry.

BOOKS AND PAMPHLETS RECEIVED—

C. E. Armand Semple, B.A., M.B. Cantab., Aids to Therapeutics and Materia Medica—Godwin Timms, M.D., M.R.C.P. Lond, Alcohol: in some Clinical Aspects a Remedy; a Poison—C. E. Armand Semple, B.A., M.B. Cantab., Outlines of Medicine; Part I., Diseases of the Lungs, Heart, and Liver—C. H. F. Routh, M.D., M.R.C.P. Lond., The Moral and Physical Evils likely to follow if Practices intended to Act as Checks to Population be not strongly Discouraged and Condemned—New Sydenham Society's Lexicon of Terms used in Medicine and the Allied Sciences, edited by Henry Power, M.B., and Leonard W. Sedgwick, M.D.; Part I.—Dr. F. Beely, Zur Behandlung einfacher Fracturen der Extremitäten mit Gyps-Hauf-Schienen—W. Braithwaite, M.D., and James Braithwaite, M.D., The Retrospect of Medicine; July-December, 1878—Three Months in the Paying Wards of a London Hospital—Dr. J. F. Farina, Le Climat de Menton, son Influence sur le Traitement de la Phthisie Pulmonaire.

COMMUNICATIONS have been received from—

Dr. J. F. Goodhart, London; Mr. R. W. Parker, London; Mr. John Chatto, London; Mr. T. M. Stone, London; Mr. B. R. Wheatley, London; Dr. W. Allen Sturge, London; Dr. J. Matthews Duncan, London; Mr. D. Colquhoun, London; Dr. Henry Sutherland, London; Dr. Robert Druitt, London; Mr. J. Hamilton Craigie, London; Dr. Leach, London; The Secretary of the Devon and Exeter Hospital; Mr. J. Wickham Barnes, London; Mr. C. J. Cullingworth, Manchester; Mr. Camden, Rhyl; Dr. Dale, Norfolk; Mr. Egan, King William's Town; Dr. James Caithness, Denbigh; The Registrar of Apothecaries' Hall, London; Mr. T. D. Marshall, London; Mr. Edward Bellamy, London; The Honorary Secretary of the Odontological Society of Great Britain; Mr. Thomas Bird, London; The Honorary Secretary of the Quekett Microscopical Club; Dr. Edward Sparks, Mentone; The Registrar-General, Edinburgh; Dr. John Whitmore, London; Mr. R. Clement Lucas, London; The Secretary of the King and Queen's College of Physicians, Ireland; Dr. R. Lawson, Edinburgh; Dr. G. E. Herman, London; The Secretary of the Naval Medical Compassionate Fund, London; Mr. Marsh, London.

APPOINTMENTS FOR THE WEEK.

January 18. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. H. G. Seeley, "On Reptilian Life."

20. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Second Lettsomian Lecture—Dr. C. Thorowgood, "On Bronchial Asthma: Pathological Tendencies of Asthma."

21. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Address by the President, Mr. Jonathan Hutchinson. Dr. P. Irvine—Specimen showing the Effects of Compression of the Main Bronchia. Dr. Barlow—Three Specimens of Bronchial Gland Disease. Dr. D. Powell—Sarcomatous Disease invading the Lung and Occluding its Bronchi. Mr. Sydney Jones—Cured Aneurism of the Subclavian Artery. And other Specimens.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

22. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Association of Surgeons Practising Dental Surgery (Council Meeting, 7½ p.m.), 8½ p.m. Annual Meeting for the Election of Officers. Adjourned Discussion on Dr. C. Meymott Tidy's paper on Anæsthetics.

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Clinical Evening. Several members will relate cases of interest. Dr. F. C. Turner will exhibit Microscopic Specimens from a Case of Sclerosis.

23. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. J. H. Gordon, "On Electric Induction."

24. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m. Dr. Southey, "Pleuritic Effusion treated by Capillary Drainage." Dr. Althaus, "Disease of the Spinal Accessory Nerve." Dr. Ord, "Rheumatoid Arthritis from a Clinical Point of View." Mr. G. Brown will show a Case of Disease of Testis in a patient aged 30.

Quekett Microscopical Club, 8 p.m. Mr. F. A. Bedwell, "On the Urticating Threads of *Actinia parasitica*." Mr. E. T. Newton, "On a New Method of Preparing a Dissected Model of an Insect's Brain, from Microscopic Sections."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Prof. Ayrton, "On the Mirror of Japan."

VITAL STATISTICS OF LONDON.

Week ending Saturday, Jan. 11, 1879.

BIRTHS.

Births of Boys, 1308; Girls, 1340; Total, 2648.
Average of 10 corresponding years 1869-78, 2443·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	972	901	1873
Average of the ten years 1869-78	786·2	809·4	1595·6
Average corrected to increased population ...	...	...	1718
Deaths of people aged 80 and upwards ...	...	...	69

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	...	6	8	1	12	...	3	1	4
North ...	751729	1	4	15	3	17	...	5	...	2
Central ...	334369	...	...	4	1	4	...	4	...	...
East	639111	...	5	4	1	18	1	3	1	2
South	967692	11	16	25	2	15	2	4	2	1
Total	3254260	12	31	56	8	66	3	19	4	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·725 in.
Mean temperature	28·2°
Highest point of thermometer	35·3°
Lowest point of thermometer	21·4°
Mean dew-point temperature	22·2°
General direction of wind	E.
Whole amount of rain in the week	0·03 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 11, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Jan. 11.	Deaths Registered during the week ending Jan. 11.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2643	1873	35·3	21·4	28·2	−2·12	0·03	0·08
Brighton	105608	44·9	55	29	38·6	21·0	29·7	−1·28	0·00	0·00
Portsmouth ...	131821	29·4	76	40	...	...	...	...	...	...
Norwich	85222	11·4	62	45	35·0	19·0	29·1	−1·61	0·00	0·00
Plymouth	74293	53·3	46	45	44·0	25·0	34·7	+1·50	1·38	3·45
Bristol	209947	47·2	137	120	35·7	17·4	26·5	−3·06	0·37	0·94
Wolverhampton ...	75100	22·1	55	38	37·4	14·3	26·2	−3·23	0·05	0·13
Birmingham ...	388884	46·3	312	229	...	...	...	...	...	...
Leicester	125622	39·3	93	55	34·2	17·0	26·6	−3·00	0·02	0·05
Nottingham ...	169396	17·0	143	89	38·0	12·1	26·3	−3·17	0·01	0·03
Liverpool	538338	103·3	430	334	38·0	11·7	27·5	−2·50	0·01	0·03
Manchester ...	361819	84·3	279	244	...	...	...	...	...	...
Salford	177849	34·4	154	123	...	...	...	...	...	...
Oldham	111318	23·9	69	40	...	...	...	...	...	...
Bradford	191046	26·5	126	81	36·8	22·4	29·4	−1·45	0·00	0·00
Leeds	311860	14·5	248	135	39·0	24·0	30·9	−0·62	0·00	0·00
Sheffield	297138	15·1	208	139	38·2	21·0	28·7	−1·84	0·00	0·00
Hull	146347	40·3	95	63	...	...	...	...	...	...
Sunderland ...	114575	41·4	105	47	...	...	...	...	...	...
Newcastle-on-Tyne	146948	27·4	101	62	...	...	...	...	...	...
Edinburgh	226075	53·9	149	101	36·3	24·0	30·5	−0·84	...	...
Glasgow	578158	95·8	417	312	38·0	23·5	29·7	−1·28	0·03	0·08
Dublin	314666	31·3	174	271	39·4	14·2	30·6	−0·78	0·64	1·63
Total of 23 Towns in United Kingdom	8502896	38·6	5177	4512	44·0	11·7	29·0	−1·67	0·18	0·46

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·73 in. The highest reading was 30·08 in. on Monday morning, and the lowest 29·41 in. on Saturday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

PRESIDENT'S ADDRESS
TO THE
PATHOLOGICAL SOCIETY.

BY
JONATHAN HUTCHINSON, F.R.C.S.

BEFORE we proceed, gentlemen, any further with the ordinary business of this evening's meeting, I must ask permission to discharge the pleasing duty of thanking you very warmly for the honour which you have done me in electing me to this chair. No one could appreciate that honour more highly than I do, and few could feel more sincerely anxious lest the dignity of the post should sustain any diminution whilst I hold it. When I recall the names of those who have preceded me, and especially when I remember the ability and energy with which its duties have been discharged by the President who has just vacated it, I may well tremble at the prevision of my own shortcomings. Having, however (in a rash hour, it may be), accepted the too flattering nomination of your Council, I can now only promise that I will do my best.

It is usual, I believe, for your President at the first meeting after his election to deliver a short address, and I shall take leave to avail myself of this custom, in order to make a few general remarks upon the past and future of our Society.

The Society exists for the collection and record of well-investigated facts in pathology. Perhaps there is no better test of zeal for truth and zest in the pursuit of knowledge than the aptitude for forming Museums. There is none to which we may more confidently appeal in our estimate of any man, city, or nation, than the reverence for ultimate facts, and the desire that those facts should be firmly based. Now, a museum is an assemblage of facts arranged for convenience of reference, in which facilities are given, not only for enabling the novice to learn, and the learned to refresh his memory, but the investigator to make new examinations, and confront changing opinions with the data upon which the old ones were founded. Now, in a sense, and that not a far-fetched one, our twenty-nine volumes of *Transactions* may be regarded as a Museum. Many specimens lose their bloom when they are put into bottles, and can by no care be so preserved as to keep their usefulness. Many materials of proof which admit of investigation at the moment, cannot be bodily "mounted" and put into a display case. For these the printed page is the proper means of record. But, before they are so placed, it is obvious that there is need for tenfold care as to the absolute accuracy of every item of description and statement. Once printed, there is but little opportunity for re-investigation, or for the detection of error. This sort of security it was which I believe the founders of our Society had in contemplation when they determined to meet together and look at each other's specimens before they allowed any to be placed on record. Nothing could find its way into our volumes which had not been submitted to the criticism of a meeting, and nothing in the way of statement could be admitted at a meeting, unless the communicator was able to substantiate it then and there, by placing his specimen on the table.

No one who had the pleasure of attending the eloquent lectures on Surgical Pathology, delivered by Sir James Paget in the theatre of the College of Surgeons twenty-five years ago, can have forgotten a very splendid passage, in which reference was made to the value of combined work. After describing a portion of hog's intestine with cysts in it, which had been procured by Jenner, examined and described by Hunter, after chemical testing by Cavendish, the lecture concluded—"What a relic have we here! Surely never on an object so mean to common apprehensions did such rays of intellectual light converge, as on this, to which were addressed the frequent and inquiring observations of Jenner, the keen analysis of Cavendish, and the vast comparison and deep reflection of John Hunter. Surely never were the elements of an inductive process combined in such perfection! Jenner to observe; Cavendish to analyse; Hunter to compare and to reflect." Now, it was in the hope of securing for a vast number of fragments of pathological evidence the kind of advantages here referred to, that the Pathological Society was begun. I say "the same kind of advantages," and make no reference to the differences of quality. The names of those whom we revere in the past will gain no lustre by self-depreciation on our part; and we had better, therefore, say simply that we tried to keep their great example before us, and to collect, observe, analyse, and reflect in the best way we could. It is no vain boast to say that round the table of our Society, from year to year, have sat the representatives in the present age of Jenner, Cavendish, and Hunter in the past, and that they have done their best. The result has been the accumulation of a museum of facts in letterpress, which, for extent, for freedom from errors, for richness of illustration, is perhaps of unequalled value.

Those who can call to mind the early years of the Society will remember that many of the verbal communications made at our meetings were very brief; a member simply introduced his specimen, with a few words as to its nature and bearings, and left it in the hands of the Society. It was handed round, and, if no one had anything to ask or to object, the exhibitor was at liberty to record it in detail in the *Transactions*. The readers of that volume had the satisfaction of knowing that whatever appeared there had, at any rate, passed the scrutiny of many well-trained eyes. If there seemed need, a committee of assistance was appointed to help the exhibitor in further examination, and to confirm, or otherwise, his conclusions. Such was the care with which, in general, the facts were prepared, that committees but seldom found anything to amend. Exceptions of course occurred, some egregious, some amusing; but they were rare. At that time the attendance of many members was remarkably regular—we met the same faces at every meeting; and amongst the most constant was the distinguished physician who has just consummated his services to the Society by two years of unsurpassed ability as our President.

The Society had continued the even tenor of its course for some years, and was fairly well satisfied with the functions which it discharged, when there arose in certain quarters a feeling of dissatisfaction at the slow rate of progress. This sentiment found its expression in the journals, as well as in private, and it was remarked that the Society seemed to be content with mere pathological anatomy, and did not sufficiently put forth its energies in the higher aims of pathological synthesis and generalisation. The *Medico-Chirurgical Review*, in 1858, published a very elaborate article on the first Decennium of the Society's work, in which this line of argument was taken. The reviewer was, on the whole, appreciative and laudatory, but he remarked in a tone of disappointment that from the labours of such a Society "one would expect to find that some gigantic system of pathology would in time be raised upon a broad and substantial foundation; and being thus gradually developed, something deserving the name of a science illustrating the nature of diseases would at length rear its head." After making various suggestions for our improvement, he repeats the same rather lofty aspiration—"By such means ultimately a system of pathology would be reared which would be an honour to the Society and a boon to science." The Executive for the time being was far too wise to give much heed to such wordy and ambitious suggestions. It knew well that pathological systems must be allowed to grow slowly, and that he who should attempt to force a premature harvest would prove in the end no true friend to progress. Perhaps, too, it had even a suspicion that the very word "system," as applied to our fragmentary pathological knowledge, was wholly out of place, or at the best belonged only to a far distant future. Whilst, however, in the main rejecting the temptation, it yet listened respectfully to its critics, and set about trying whether or not any modification of its processes was desirable. The result was that the tendency to exhibit isolated specimens, unless of extreme rarity, was placed under some gentle restraint, and that encouragement was given to papers which dealt with large principles. After a while it was determined to be advisable to devote a portion of each session to the discussion of some selected topic, without making it essential that new specimens should be brought forward by each speaker. Thus it was hoped to favour the expression of the results of thought and study, rather than of mere ocular observation. In some slight degree it was perhaps a departure from the original plan of the Society, but even as such its success has fully justified it.

If from this glance at the past we turn to look to the future, the first remark that suggests itself is that the Pathological of London, however managed as to detail, must, without fail, be successful. The number and character of its members are a guarantee of this. But there is even in success a less and a more; and here the responsibility of your Executive begins.

Is it possible that any modifications in our method of work could be introduced, which would exalt our success and yet further heighten our usefulness? I will ask your permission to state briefly one or two thoughts which have been occurring to my mind since I knew that, through your too complimentary goodwill, I was to be placed for a time in a position of especial influence amongst you. First, then, it has seemed to me exceedingly desirable that we should encourage and facilitate in every possible way the presentation before us of unusual and rare specimens of pathological anatomy. The first thought of those engaged in our operating theatres and post-mortem rooms, on meeting with an illustration of morbid process which appears to them of especial and rare value, should be that of utilising it by allowing us to see it also. I do not think that we need fear to be overwhelmed with common or trivial preparations; the times are too advanced, and my fear is rather that we have developed a spirit somewhat too critical and exclusive. The chief difficulty in the way is lack of time. Pathology is long, and our meetings are short. In ninety minutes only a certain and very moderate amount of speaking is possible. Now, in order that we may save our time, and also secure for those who are kind enough to bring their specimens to us, that they may not often incur the disappointment of not being able to show them, it has seemed to me that it would be well to organise a plan by which a certain number of preparations might be exhibited, but not spoken about. A special table, or even a special room, might be allotted to such drawings and preparations as might, by the help of a large and well-written card of specification, be considered to sufficiently explain themselves. These should always be on the table half an hour before the meeting, and remain a short time afterwards; their presence should always be announced from the chair; and they should be noticed in the journals, and briefly recorded in our reports. They would be subject to question and criticism from those present, just as much as if shown in the ordinary way, and it might perhaps be well that it should be open for any member at the commencement of the next meeting to revert, if he wished, to anything shown at the former one, and ask for further information.

Any member of the Morbid Growths Committee would be at liberty to claim any tumour thus shown for further inspection and report. Thus to this class of communications almost the same amount of security from error might be given that is obtained by those which are openly discussed before us. It would be part of the duty of everyone attending our meetings to look at the specimens of special interest to himself, and see if there were any points in which he could assist their exhibitors. We should be all jointly responsible that nothing should pass through this room uninspected and unverified. I feel confident that some such plan as this would work well,—would bring before us a far larger amount of material than it is now possible to deal with, and would much increase and diversify the interest of our meetings.

Amongst its collateral advantages might be mentioned that it would leave more time for the discussion of those matters which cannot be demonstrated, and that the good example of total silence on the part of many exhibitors might possibly induce the greater study of brevity and conciseness on the part of those who elect to speak. Without doubt, during the last ten years, at every hospital museum, numberless specimens of the greatest value have been silently added to the collections which ought first to have come before us. The special discussions on visceral syphilis and on lymphadenoma brought into this room many preparations and many beautiful drawings which we had not previously seen, and respecting which I doubt not the thought of many old members of the Society was like my own—why was it necessary to have a special debate in order to unearth these treasures? They ought to have been brought before our ordinary meetings at the time they were obtained. Now, the reason that such were not brought was probably in most instances a doubt as to whether the Society would find time to hear about them, and whether, if it did, there might not be many present who would listen with but reluctant patience.

Under the plan at which I have hinted, those who exhibited in silence would of course be free from the slightest risk of boring anyone, and those who spoke would in many cases, perhaps after a time in most, have the satisfaction of knowing that they did so at the invitation of the meeting or of the Society's officers.

Is it not possible that our published records might be made more available if from time to time the Council were to appoint a small committee to examine and report upon special subjects as illustrated in them? In this way the information they contain might be condensed and arranged, and—what is surely of great importance—the points still needing further elucidation might be prominently stated.

Such committees might do good service in preparing lists of desiderata specifying the subjects which the Society would be glad to have illustrated by specimens. Thanks, I believe, to the energy of Mr. Holmes, and to the liberality respectively of Mr. Pollock and Dr. Peacock, who bore the expense, we possess two excellent catalogues to our series of volumes. Without these the volumes would be scarcely accessible; but, valuable as these indices are, I cannot but think that reports on special subjects, being a sort of *catalogues raisonnées* with comments, would be very useful. I owe this suggestion to the review from which I have quoted.

A very important part of the Society's work concerns its provincial members, of whom it has a considerable number; and all will agree that we ought, by all possible means, to encourage their work by facilitating the exhibition of specimens sent up to the care of our secretaries, and in any other ways. Several provincial capitals possess their own Pathological Societies, and that of Dublin may, I believe, claim precedence of us in point of years. None other, so far as I know, publishes any permanent record of its transactions, and thus, useful as their meetings are as schools of observation and experience, an important loss occurs in respect to the ephemeral character of their work. Would it be possible in some way to affiliate the other metropolitan and provincial societies with that of London; to invite them to send to us their more valuable specimens and drawings; and to record in an appendix to our volume a list of the chief cases which had been before them? We could not, probably, do much more than give a list, or at best the briefest abstracts; but with such might be inserted references to the place of publication in the weekly journals of those cases which had been noticed in detail. Such references, duly indexed in our volumes, would be of great use to those who might search them for special subjects, and their insertion would probably act in some degree as an incentive to care and zeal on the part of our fellow-workers in other cities.

Let me mention here a statistical fact which is suggestive. During the first two years of the Society's life, with 120 members, it averaged in each session 120 contributions and reports, and in its eleventh year the number had reached 201. Now, in its twenty-ninth year, the last session, with a members' list of 601, the number of communications of all kinds was only 105. This diminution has occurred chiefly during the last decade, the period during which a certain number of meetings have been given up to special discussions. No one will doubt that the value of our volumes has gone on increasing; but the figures which I have quoted plainly show that we have gradually effected a very important change in our policy, and that we now decidedly aim at excellence rather than at numbers. No one would wish to return to the old plan if it involved the abandonment of the new; but the question is, whether the two cannot be combined, and that, too, in a manner to be mutually helpful. Those who cannot help looking with some regret on this reduction in the activity of the Society's practice in respect to the display and investigation of specimens of pathological anatomy, make yet a suggestion, to which I have not alluded. They say that, apart from the value of the *Transactions* and of the reports in journals, and, in addition to that of the new principles and discoveries in pathology which the Society has been the means of publishing to the world, its meetings have had a special usefulness to those who have attended them, in enabling them not only to hear but to see. The opportunity of seeing with but little trouble to oneself a dozen or twenty different specimens, the cream of the post-mortem theatres of this metropolis, was one the educational value of which was very great. Few of us, even at our own hospitals, know of a tenth of what is going on; the ward and the lecture-theatre compete with the post-mortem room, and men engaged in practice find but little time for special pathology. To such the opportunities afforded by our meetings, when a large variety of specimens are produced, are beyond estimate.

Amongst the work which the Society has now in progress, the most important is the investigation of the subject of pyæmia, for which a Government grant of money has been obtained. This investigation is in the hands of a very able committee, whose report will soon be forthcoming. Arrangements have been made for a special debate on the subject of lardaceous

disease, which will probably occupy two or three meetings in March, and for the opening of which the Council has been fortunate enough to secure the services of Dr. Dickinson. We have a committee, appointed at the last meeting, engaged on the subject of garget in cows, and on the possible influence of milk from inflamed udders as a cause of disease. The Committee on Morbid Growths, and that on Pathological Chemistry, are permanent ones; and I cannot but think that if our members generally knew of the kind of help which these valuable committees are prepared to give, their labours would be very much increased. At our last meeting, in his concluding address, our President took occasion to commend to the special attention of the Society the subject of comparative pathology; and his recommendation is one which we ought to be zealous to keep in mind. There may be some doubt as to the working value of detailed schemes prepared by a society or a committee. It is probably better, as a rule, that societies should simply afford facilities, and leave the details to spontaneous effort. On such a wide subject as that of comparative pathology there might, however, be no objection to our obtaining such help as could be given by a committee of those best informed in the matter, which might bring before us a report as to special desiderata, and the best means of supplying them. It is, of course, unnecessary to state that communications as to diseases of the lower animals are always welcome here, for many such have been presented in past years, and always well received.

I began, gentlemen, as in duty bound, with a personal allusion; but I need to apologise for ending with one. On looking into our members' list, I see that twenty-seven years have passed since I was elected a member, and that within four years of that I had the honour of being made one of the Council. I was but youthful in those days, and I well remember that a most valued friend, one of the founders of this Society, told me after my election on the Council, and partly as explanatory of it, that it was a special aim of the Society to bring forward young men. When informed of my nomination as your President, my mind recurred to this, and I could not help believing that the traditions of its early life were still in force. I regard myself therefore as, in some measure, a representative of a class. I have reason to believe, also, that I owe my position here to-night in part to the mere accident that I joined the Society some years earlier than others, who, in many respects, have now better claims than myself. The moral of this fact, to aspirants to the Society's honours, is too plain to need comment. But I have other reasons for mentioning these circumstances. I wish to be allowed to express the hope that the genius of this Society will always tend to encourage and reward work done early in life. It is then that the faculties for observation are brightest, and the zest for knowledge the most keen. The somewhat grim motto of our Society is "*Nec mors silet*,"—for us, even Death himself becomes eloquent. I am aware that it refers to the material with which we deal; but, if I may be pardoned an allusion so serious, it applies also to ourselves. The tree of science is deciduous; and the ordinance which, whilst it gives to the weary rest, ever brings forward a new generation, free from the trammels of formed opinions, and fresh for new fields of work, must ever be regarded, in reference to a branch of progressive knowledge such as that which we here cultivate, as being in the main a friend.

Poisoning by Pepsine Elixir.—Prof. Ball stated at the Hospital Medical Society (*Gaz. Hebd.*, January 17), that having for some time past employed in *embarras gastrique* (and especially in the dyspepsia of phthisis) Boudault's pepsine, he had occasion to be well satisfied with the results produced. Recently, however, having had to prescribe the elixir of pepsine to some of his patients, and to his *interne*, he was astonished at finding next day that all these patients presented the symptoms produced by poisoning by belladonna, and especially the *interne*, who had taken a large dose. On some of the elixir being analysed, an alkaloid was obtained, the injection of a few drops of the solution of which, performed on a man offering himself for the purpose, induced mydriasis. The cause of the presence of the belladonna remained a mystery. M. Constantin Paul observed that experiments had shown that of all the pepsines, that of Boudault is the best; and suggested that as Boudault prepares his pepsine in combination with hydrochloric acid, opium, etc., he may perhaps do so with belladonna.

ORIGINAL LECTURES.

LECTURES ON
THE DIAGNOSIS OF EPILEPSY.

DELIVERED BEFORE THE HARVEIAN SOCIETY.

By J. HUGHLINGS-JACKSON, M.D., F.R.C.P., F.R.S.,
Physician to the London Hospital, and to the National Hospital for the Epileptic and Paralysed.

Lecture II.

So far we have spoken of the type case and of the sub-typical cases as if there were paroxysmal affections of consciousness only, or the crude sensations, vertigo and the epigastric warning. Indeed, we may hear of nothing else than affection of consciousness; but often there are decided physical accompaniments, if not always some. Necessarily there is always a physical condition—viz., a discharge of some part of the nervous centres, even if there be cases of epilepsy with loss of consciousness only. I now come to speak of visible or inferable peripheral effects of the central discharge.

Visible effects of the discharge are spasms; such effects of it as that the salivary glands hypersecrete are inferred from witnessing flow of saliva, and perhaps from hearing swallowing movements. We infer that the bladder contracts from finding that the patient has passed urine. There is a large and important class of inferable effects, from, or rather accompaniments of, the discharges; these are "crude sensations." With regard to all "crude sensations," we can—since, although abnormal, they are psychical states—only translate what the patient tells us into physical conditions. Thus, if a patient say that at the onset of his fits he has "balls of fire" before his eyes, we infer the physical condition of excessive discharge of sensory elements of centres especially representing the retinæ. Of course, any sensation, healthy or morbid, is only to be called peripheral in the sense that it is referred to the periphery (epi- or ento-periphery), or that it is, as in vision, considered as in the environment in relation to some part of the periphery.

Here we must pause to remark on several matters. First, we speak of the nature of the epileptic discharge, partly restating in a different way the substance of what was said in the last lecture, when speaking of movements of mastication, etc.

Whenever we speak of discharges in epilepsy it is to be inferred that nervous discharges in a degree far above normal are meant. There are, of course, nervous discharges in the operations of health. But in epilepsy the spasm is plainly the result of an *excessive* discharge; there is a strong development of a great number of movements of parts at once. The crude sensations at the onset of severe fits, "balls of fire," etc., *imply* correlative strong discharges. During excessive discharges of parts of the very highest centres, nothing like normal mental states arise; time is required for consciousness; consciousness ceases during the rapid and excessive discharges of vast numbers of the nervous arrangements which are the substrata of consciousness. The psychical states arising during an epileptic discharge of the highest centres are only crude sensations, such as vertigo and the epigastric sensation.

There are certain peripheral effects equivalent to spasm. The flow of saliva is equivalent to spasm, being the result, it is supposed, of strong currents along efferent, if we may not say motor, nerves. The stopping or slowing the heart is supposed to be owing to effects produced through the inhibitory fibres of the pneumogastric nerve, efferent although not motor fibres. The effects of epileptic discharge on the circulatory apparatus have not been minutely studied. At the onset of some slight attacks the pulse stops. A patient not unfrequently tells us that his heart palpitates at the onset; but whether it then goes slower, whether the palpitation means intermittence, is hard to determine. Increased frequency of cardiac action, *after a slight fit*, might be ascribed to partial exhaustion of the inhibitory fibres or their centres—a condition analogous to that of centres in epileptic hemiplegia (post-epileptic paralysis significant of exhaustion of centres from the excessive discharge in the prior paroxysms).

It is to be understood that the term "sensation" is used as a

name for a psychical state, and not as convertible with an active state, or discharge, of sensory nerves or centres.

There are sensations occurring during excitations or discharges of motor centres, as well as during excitations or discharges of sensory centres: thus epileptic vertigo is an abnormal sensation as much as coloured vision is; the former is a crude psychical state occurring during (not from) excessive discharges of central elements representing retinal elements, the latter a crude sensation occurring during (not from) excessive discharges of central elements representing ocular and perhaps other movements. It will be convenient occasionally to use the terms "motor-sensation" and "sensory-sensation." It is not meant that muscular movement, nascent or actual, is any part of a sensation, nor is it meant that a sensation is a mode of motion of either motor or sensory nervous elements. The expressions are to be taken simply as abbreviations of the expressions "sensation *occurring during* activity of a motor centre," and "sensation *occurring during* activity of a sensory centre."

We must not limit the term "sensation" to the so-called special sensations—sight, touch, etc. In that expression are included all sensations whose corresponding physical organs are on the periphery. Using mixed anatomical and psychological terms, on the same understanding as the expression motor-sensation is used, these may be called epi-peripheral sensations. But there is also the large class of sensations—ento-peripheral sensations—called by Lewis "systemic," and by Bain "organic." This division into two classes of normal sensation corresponds to the division to be made later on into two classes of "crude sensations."

We divide the peripheral effects of epileptic discharges into three rough groups. It must be borne in mind that we are speaking solely of epilepsy proper, and only of slight fits, under this division. (1) Affection of animal parts; (2) affection of organic parts. Then under each we consider (*a*) what we see, viz., spasms or equivalent effects of central discharge; (*b*) what we infer from the patient's statement about his crude sensations before he loses consciousness.

1. *Affection of Parts serving in Animal Functions.*—(*a*) Visible movements. The most pronounced of these are stiff or gliding movements of the hands, of the eyes, or of the face, or perhaps of all these parts—that is to say, spasms of those regions of the animal parts having small muscles;(a) or, in other words, of those parts directly concerned in the most intellectual operations and most voluntary actions. (*b*) Crude sensations (special senses).—The patient may have preluding stench in the nose, or "balls of fire" before the eyes, or noises in the ear, or numbness of the hands. These we interpret to be owing to central discharge of different sensory elements of the highest centres of the cerebral hemispheres, representing the regions of the body concerned in the several senses named. There is also the motor-sensation vertigo.

2. *Affections of Parts serving in Organic Functions.*—(*a*) Visible changes from spasm or effects equivalent to spasm. The face and the lips may turn pale, or become red and then pale. There may be a flow of saliva; the pulse may stop; there may be eructation. (*b*) Crude sensations (systemic) of suffocation, of dying, of "sinking into the ground," nausea, the epigastric sensation already mentioned, chilliness, warmth, etc.

3. *Common to both Animal and Organic.*—Then, as a third division, we must consider affections of respiration. Respiration belongs, or at any rate respiratory movements belong, both to the animal and to the organic group; for we not only breathe to aërate the blood (organic function), but we fix the chest-walls after a full inspiration, possibly by closure of the glottis in "effort," as, for example, in lifting a weight (animal function).

It is a common thing for there to be entire suspension of respiration with but little true spasm of the face and limbs. The feeling of suffocation in an early stage of epileptic fits is probably owing to the beginning of this suspension.

(a) It is significant that the rule is that all sorts of epileptic and epileptiform convulsions begin in small muscles, or in muscles whose ordinary movements require little energy for the displacements they have to effect. I have advanced the hypothesis that small *muscles* are represented in the cerebrum by small cells, or rather that *movements* of parts which require little energy for the displacements they have to effect are represented by small cells. As the researches of Bevan Lewis show, this is not altogether an hypothesis, in so far as "centres" in Ferrier's region are concerned. "Centres" chiefly representing "small movements" are those which have fewest large cells. This matter has wide bearings.

Now let us state some facts of scientific bearing, and in such a way as to bring us to a clearer consideration of the empirical value of certain symptoms in the diagnosis of slight seizures. We gave as one of the things distinguishing the paroxysm of epilepsy proper from the epileptiform seizure that the former began by loss of consciousness, or that loss of consciousness was nearly the first thing. In other words, these are the cases in which there is no warning, or in which it is short. Now, such a mode of beginning implies that the correlative physical condition, the excessive discharge, begins in the highest cerebral centres; for these, of course, are the centres engaged during our highest and latest mental states; only another way of saying engaged during our consciousness. For we have not got a consciousness *and* latest and highest mental states; we have only two names for one thing. Moreover, if analytically we speak of our highest mental states under the names of will, memory, emotion, and reason, we are only giving names to different aspects of consciousness. Thus there are not separate centres for the will, nor for memory, nor for the emotions; these arise simultaneously during activity of the highest cerebral centres—that is, they necessarily all arise when consciousness arises, being only names for different aspects of consciousness itself. The term substrata of consciousness (in detail, substrata of the simultaneously arising states, will, memory, etc.) is only another name for highest and latest developed centres (racially and individually).

The following are equivalent expressions:—

As to the Paroxysms: 1. The fit begins with loss of consciousness; 2. The fit begins without a warning.

As to the Centres: 3. The discharge begins in the highest cerebral centres; 4. The discharge begins in the substrata of consciousness; 5. The discharge begins in the centres engaged during the fourfold state—will, memory, reason, and emotion; 6. The discharge begins in centres which especially contain substrata of numerous tactual and visual images, words, emotions, etc.; 7. The discharge begins in parts which especially represent movements in which small muscles are concerned.

With obvious modifications, the statements apply to cases in which the loss of consciousness quickly follows the onset—quickly follows a warning.

Thus we see that not only the animal parts, but that the organic parts also, are the fields of symptoms from epileptic discharges; and, as the paroxysms are such as begin with loss of consciousness, we declare them to result from discharges of the highest centres. This is only another way of saying that the highest centres represent the parts concerned, both organic and animal; not the face and limbs only, but the heart, salivary glands, stomach, etc. The epileptic discharge is an "experiment" showing that they contain nervous arrangements representing these parts. When we bear in mind that emotional manifestations are activities of deeply organic parts as well as of animal parts, we see that psychology is in absolute harmony with the facts of epilepsy proper; for emotion—like memory, reason, and will, the remaining other sides of conscious states—begins to arise during activity of our highest cerebral centres. So now we add to the above seven statements the following equivalent statement.

8. The discharge begins in a part representing both organic and animal parts.

Let us for a moment consider the facts of severe fits. In these cases, both animal and organic parts are affected by the severe discharge; but not only the small muscles, but all the visible muscles of the body, are affected. Moreover, some organic parts are affected; we cannot say all. The following statement is hypothetical; it is only supposed to be equivalent to the others.

9. The discharge begins in centres representing the whole organism.

In these lectures, we deal with cases in which there is little more than loss of consciousness, in which the peripheral effects are slight. Now, it is a singular thing, at first glance, that it is in these very cases that the slight symptoms we have are not only those referable to animal parts, but also symptoms referable to organic parts, as pallor of the face, flow of saliva, slowing and stoppage of the pulse. With either set of symptoms there may be stoppage of respiration, with little spasm of the limbs. Do not these facts show that organic as well as animal parts of the body are repre-

sented in the cerebrum? Do not they show that they are both represented in the very highest of the cerebral centres? For the seizures begin by discharge of these highest centres. Besides, how would anyone set about explaining what occurs physically during the emotional manifestations of fear, joy, etc., unless he assumed that the organic parts are represented in the highest centres? And everybody does tacitly assume it in ordinary discourse. To say that "he is frightened" implies it; for what represents the "he" or the "ego" of every passing moment but the then highest consciousness, and what should be the substrata of highest consciousness except the highest nervous centres? When we say anyone is frightened, we are asserting that there are occurring physical manifestations from discharges of the highest centres. The facts of emotional manifestations are indeed very striking. To take the case of fear, and to speak only of what can be seen or inferred from involvement of the organic parts, we find that the heart is quickened, the respiration is hurried, the mouth is dry, there is increased perspiration, the face is pale, there may be intestinal evacuations, and in anxiety (fear spread out thin) there is increased renal secretion or increased flow of the watery elements. The criticism that these are only "caused by emotion" is invalid. A psychical state cannot cause anything physical; an emotion is not the cause, but the psychical accompaniment, of what are physically nervous changes, and the central changes are those causing, directly or indirectly, disturbances of the organs named as well as of animal parts omitted from our catalogue. And if it be possible for a person to feel afraid only, in the sense of no external manifestations appearing, then the only difference is that the central changes are slight, or are antagonised by others; that is to say, they are limited to the highest nervous centres.

A slight digression to facts of other brain-disease is justifiable. Epilepsy cannot be understood if it be not regarded in relation to all other cerebral diseases. This digression will lead round about to a practical consideration of certain important matters connected with the diagnosis of epilepsy. Although a digression from our principal topic —epilepsy—it is a continuation of that part of our subject which is to show that the cerebral centres represent organic as well as animal parts.

The above-mentioned facts, showing implication of organic parts in epilepsy, find their parallel in the occurrence during meningitis, and some other acute primary brain-diseases, of vomiting, constipation (occasionally volvulus), irregularity of pulse and respiration. These cases show, exactly as slight cases of epilepsy do, that organic parts are repeated in the organ of mind. It is exceedingly important to note for practical purposes that from disease of "the organ of mind" we have such peripheral physical symptoms; the more so that, whilst they are of great value in the diagnosis of acute primary disease of the brain, positive mental symptoms (delirium, etc.) are of little value—none, I think—in diagnosis of such acute primary disease.

If it were admitted that the "organ of mind" was, like lower centres, representative of nothing else than impressions and movements, it would save us from many blunders. Surely there is nothing strange, *à priori*, in supposing that the higher and highest cerebral centres have the same fundamental kind of constitution as the lowest centres in the pons, medulla oblongata, and spinal cord. And, *à posteriori*, we find that very frequently disease of the cerebrum does cause motor or sensory symptoms, or some of both; we find that with tumours in the middle cerebral centres there are definite partial convulsions, or convulsions becoming universal; we find that faradaic or galvanic stimulation of those centres produces definite movements. But some of those who admit that Hitzig and Ferrier's regions contain movement-centres, still think the rest of the cerebrum is for mind. But there is no incongruity whatever in holding this opinion, and in holding also that the rest of the cerebrum is made up of nervous arrangements representing impressions and movements. To hold that "the organ of mind" is made up of nervous arrangements representing impressions and movements seems strange when the two little words "organ of" are read over so that one is misunderstood to mean that the "mind is made up of nervous arrangements representing impressions and movements." All that is said is that the substrata of mind have this sort of constitution. So that I think, as others do, that the parts beyond Hitzig and Ferrier's centres are "for mind"; in the sense that they contain the substrata of highest mental states. But this belief leaves me perfectly free to hold the opinion that these substrata are nervous arrangements for impressions and movements.

These remarks are not of mere theoretical interest; from not admitting this kind of constitution of the cerebrum, acute brain-disease in its earliest stages is nearly always put down to fault in some non-cerebral organ, whose activity is particularly disturbed, directly or indirectly, by disease in that part of the brain which represents that organ. Effects are taken as causes. Is not migraine frequently put down to digestive derangement? Are not cases of tubercular meningitis and cerebral tumour in their earliest stages constantly ascribed to stomach and liver derangements? Would these mistakes be so common if it were recognised that the liver and stomach, as well as the hand and foot, were represented in the organ of mind?

Now, to come back to epilepsy. Because a patient's pulse is irregular during or just after an epileptic fit, the fit, supposing it be slight, is put down to cardiac affection, even when the patient is suddenly seized when sitting reading or at dinner, turns deadly pale, and yet does not fall. Again, because a patient's fits begin with an epigastric sensation, described as nausea, or if there be eructation, it is not at all uncommon for the attacks to be ascribed to indigestion, notwithstanding that these stomach-symptoms occur paroxysmally, and in face of the facts that ordinarily the patient may eat a big dinner and forget it, have after it no pain, no flatulence, no feeling of distension, no nausea, but go on digesting it unconsciously. So that if such a case is to be looked on as dyspepsia, it is paroxysmal dyspepsia causing loss of consciousness. Supposing the patient had dyspepsia, and supposing that he was invariably much more dyspeptic just before each fit occurred, we ought to wonder why dyspepsia "caused" loss of consciousness, and caused it suddenly, and caused it transitorily, when there are scores of cases of aggravated dyspepsia without much complication. Trousseau mentions a case in which attacks of violent giddiness, with deadly pallor, occurred, after a sensation of pressure at the pit of the stomach, soon followed by vomiting. These attacks were put down to dyspepsia. The boy's father and his medical attendant refused to believe in Trousseau's diagnosis of epilepsy; the sequel of the case showed Trousseau to be right. Trousseau says, of what he calls a "visceral aura," that it escapes the observation of the physician all the more easily from its simulating other affections in a numerous class of cases. The "visceral aura," or "warning" of an epileptic fit, is nothing more than the first effect of the central discharge; it is some change produced in the viscus, or it is some sensation referred to the viscus, the sensation arising with the central discharge. In this way of regarding the term, Trousseau's meaning is, that the disturbance is supposed to originate in the viscus, whereas it is produced there by the central discharge; the discharge being of a part which especially represents that viscus. Herpin asks: "Is there anything more strange in the tonic convulsion beginning in the muscles of the digestive canal than in its beginning in those of the hand and foot?" Herpin's question is very pertinent, since, as facial pallor shows, spasm in epilepsy frequently does begin, or occurs very early, in the muscles (muscular coats) of equally organic parts (facial arteries). Here an inconsistency may be pointed out. Some organic symptoms are admitted by everybody to result from the central discharges, as pallor of the face, flow of saliva; some, as eructation, are looked upon as not resulting from it, but as causing the other symptoms with which they occur.

To resume: cases of meningitis, cerebral tumour, undoubted cases of epilepsy, show that the organic or visceral parts are disturbed by cerebral disease in many cases, in which visceral disease is supposed to disturb the brain. Two things are plain to the laity: that digestion influences the brain, and that the brain influences the digestion; a heavy meal produces in some people sluggishness of mind and depression of spirits; joy or grief takes away the appetite.

There is still another way of regarding the relation of visceral states to the organ of mind. It is well known that visceral diseases, or slightly abnormal visceral conditions, influence the mind (the brain). We have the so-called *spes phthisica*, and there is the melancholy of abdominal disease. Milner Fothergill has stated with great clearness the rela-

tions of affections of different thoracic and abdominal organs to different mental conditions. From such considerations we pass on to a clearer view of the relations of mental (cerebral) to organic states.

We may fairly assume that the viscera and all other parts of the organism are doubly connected with the cerebral centres, even with the highest of them. There are nerve-fibres efferent downwards from centres to part of body; nerve-fibres afferent upwards from part of body to centres. Thus there is harmonious action, consent, betwixt the part and the centre; and when one gets out of order the other suffers. If, to speak figuratively, the brain (as in an epileptic fit) fixes the chest, the chest crams, or tries to cram, the brain with blood. If the brain stop or slow the heart, as in some cases of *le petit mal*, the heart won't supply the brain with blood. It is, "You bother me, I'll bother you." There is a multiplication of effects. Hence, a study of the several "visceral auras" is of great practical moment. I doubt not that when there is a discharging lesion in a cerebral centre representing especially the stomach (when the patient at the outset of his seizure has a sensation of nausea), that centre, being in an unstable condition, is easily worried into discharging when the digestion is overworked. Indeed, for more reasons than this, attention to the diet of epileptics is one of the most important things in their treatment, as Dr. Paget, of Cambridge, long ago insisted.

There are two other things referable to internal organs, which occur in slight cases, and more frequently in slight cases than in severe ones, viz., passing urine and fæces. It may be doubted whether these are owing to epileptic spasm; they may occur after the fit, and be due to "loss of control." They occur after death. However, be these two things direct or indirect results of the paroxysm, they occur at any rate practically with the other symptoms. They are exceedingly valuable helps to the diagnosis of epilepsy, especially in its slighter forms. I say in the slighter forms, for it is said that the urinary and fæcal discharges occur most often, as Herpin long ago asserted, in the slight attacks. Passage of urine is most common, and is a valuable help to diagnosis. If a child, but especially if an adult, pass urine in bed, epilepsy is one of the things to be carefully investigated for. If passage of urine occur in a so-called "faint," or in a "giddy attack" in the daytime, there is probably epilepsy —almost certainly.

I will now make some general remarks on the diagnosis of epilepsy, and remark briefly on the question of pathology.

Perhaps one reason why, on the occurrence of a few slight attacks, there is a hesitation in carrying the evidence to its logical conclusion is, that the patient may, to all appearance, be in first-rate health. Unfortunately, this goes, so far as we can yet tell, for nothing at all against the diagnosis of epilepsy. I submit that, before the first attack, however slight, something must have been going wrong in the nervous centres. I take it for granted that everyone admits every sort of epilepsy to depend on discharge of highly unstable nerve-cells. The nervous elements must have become unstable before the first sudden "explosion"; a gun must be charged before it can be discharged. Suppose a person, feeling well and in no way discoverably out of health, has suddenly one morning, when reading a book, a violent convulsion with loss of consciousness. Surely we must admit that some part of his nervous system had been changed before that unlucky morning; the nerve-cells do not become suddenly unstable, and then suddenly discharge. Such a case is a startling one; but we must, I submit, make the like supposition in the case of a first slight fit, however slight it may be.

Possibly another reason for hesitation in diagnosing epilepsy is the absence of anything likely to be a cause of so serious a thing. The patient is well, and has had a healthy, ordinary life. But we are not always content to say of a case of epilepsy that we do not know the cause. Thus there is a tendency to fall back on the nearest most striking event, and to explain away the symptoms by fright, by temporary dyspepsia, by overwork, and so forth. We have not yet discovered the cause of epilepsy proper in any sense of the word "cause." Nor is there any morbid anatomy of it. We note carefully the facts of the above and other so-called causes, but until we find some morbid anatomy, we are not justified in anything more than stating, as an hypothesis, that epileptic fits occurred from this or that condition or circumstance. And when we have found the morbid anatomy, we shall then have to discover how fright, dyspepsia, etc., produce the unstable condition of nerve-cells, on the discharge of which the first and every subsequent fit depend. The hypothesis is stated that such causes as fright are simply "exciting causes" of the first discharge of nerve-cells which have, by prior pathological processes, reached a high degree of instability.

As regarding pathology, I would repeat that there is a negative pathology; epilepsy proper, slight or severe, is rarely owing to gross organic disease, whilst epileptiform seizures frequently are. The changes in epilepsy proper are minute, as is evident enough by their having never been found. When opportunity serves we ought to look into the state of each tissue of the part. For here comes the great question, Is the change primarily arterial and secondarily nervous; or is it a change beginning first of all in the nerve-cell? There are many nervous diseases which are not nervous at all in the sense that the nervous elements are first to go wrong. In most cases of nervous diseases of which there is an anatomy, the nervous elements are quite innocent; they suffer because their arteries get blocked up or break, because tumours grow in their connective tissue, etc. This leads to the question of hereditariness, and thus once more to the question of diagnosis of epilepsy.

It is not denied that epilepsy is a disease of some nervous organ; whatever view anyone takes of the seat of epilepsy, he believes some nervous centre or centres to be affected. But now comes the critical question—There being several ingredients in any nervous organ, which one is primarily affected? That the nerve-cells are changed no one denies; but, repeating the above question in two questions, we ask, Does the change begin in the nerve-cells of the centre; or do these suffer secondarily from a change beginning in some non-nervous element of the centres? The answer can only be hypothetical in cases of epilepsy proper, for the simple reason that as yet there is no morbid anatomy of epilepsy proper. Let us see how the two questions stand with regard to current notions of inheritance of nervous diseases.

Supposing there were nervous diseases in many of the patient's near blood-relatives, we must be careful how we interpret this evidence as showing that his epilepsy is a nervous affection. We must consider what sort of pathology these "nervous diseases" have; are they nervous in the sense that the morbid process begins in the true nervous elements of the centres diseased, or only in the sense that it begins in the non-nervous element, and leads to damage of the true nervous elements? The fact that his relatives had hemiplegia or apoplexy from cerebral hæmorrhage is simply no evidence that he inherits a disease of the nervous system in the sense that the changes begin in the nervous elements of nervous organs, for the very plain reason that the pathological processes causing paralysis and apoplexy are of a non-nervous kind; if they have a bearing, as I think they have, they point unmistakably to arterial or cardiac changes. But then the nervous affections in the epileptic's family may be such as chorea, neuralgia, migraine, or epilepsy proper. Since nothing is decided as to the pathology of any one of these affections, we cannot possibly say that they point to an inheritance of epilepsy, or tendency thereto, in the sense that they point to changes *beginning* in nervous elements. I should not make these remarks were they not to lead to a practical inquiry. The hypothesis in possession is that epilepsy is owing to changes beginning in the nervous elements of nervous organs, and it is supposed to be supported by the fact that there are often in the patient's family persons who have that or some other neurosis; that is, some other nervous affection of which there is no morbid anatomy. Why is it that we speak with most confidence of the inheritance and interchangeability of those very diseases of which there is no morbid anatomy? The occurrence of these neuroses cannot be adduced as evidence that epilepsy is a disease primarily nervous. I wish to put forward, again, another hypothesis, viz., that the cells suffer secondarily, as a consequence of arterial disease; that there is thrombosis or embolism of small arteries in most cases of epilepsy proper. I have held this opinion since 1864 as regards those epileptiform seizures in which there were no signs of gross organic disease. It first occurred to me on finding epileptiform seizures in patients who had valvular disease of the heart. I have since applied it to epilepsy proper. It may be said, "Your statement is only an hypothesis." So is any other view which can be taken of a disease of which there is no morbid anatomy.

CLINICAL LECTURE
ON A CASE OF
SUPPURATING HYDATID CYST OF THE LIVER.

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(*Concluded from page 35.*)

THE post-mortem examination was made on November 2, thirty-six hours after death, and was conducted, I may say, entirely with a view to the satisfactory demonstration of the nature of the suppurated cyst. To this end the skin of the lower part of the breast and of the abdomen was reflected, and the walls beneath cut through. In this way we were able to remove (after tying the intestines) diaphragm, liver, tumour, stomach, spleen, and pancreas *en masse*. The first thing noted, apart from the now reduced cyst on the left side of the liver, was that the organ was unusually arched above; and on section it was found that in its right lobe, and nearly empty, was another cyst, almost as large as the diminished left one. The latter was distinctly prominent, but the right one was not in a position to be diagnosed, being completely enclosed in liver-substance. On cutting into this the true hydatid cyst sprang into view. It was opened, removed, and examined. Inside it were to be seen those pearly grains, the true daughter-hydatids, closely adherent to, part and parcel of, the mother-cyst. But outside this apparently healthy cyst was a mass of semi-fluid, cretaceous, scarcely thin enough to be called pultaceous, matter, and this between the boundary of the parasite and the structure stolen (so to speak) from the liver-tissue itself. As it seems to me, this point is one of importance. And you will note that, whereas the true hydatid cyst came out apparently healthy, and almost entire, the cavity was lined with such kind of material as that you sometimes see in cases of long-standing pleural effusion—a dirty, cheesy-looking substance. In the large and fatal cyst there must have been at first something of the same kind; but when the body was opened there was little of it to be found.

There can be little doubt but that the echinococci in the left lobe of the liver had been poisoned by an influx of bile: that is their most common mode of destruction in what we might call a natural way. But on this side the outward covering was eaten through, and the substance of the liver eroded in many parts—in one more especially, just at the point where the adhesions with the fore wall of the abdomen seemed to cease, at the lowest part of the tumour towards the umbilicus. There the covering surface was so thin that very little more would have caused its rupture, with the—so far as I know—inevitably fatal result. In point of fact, this was ruptured during examination. But it had not burst during life; the operation had then been performed. Had this not been so, I have no doubt the cyst would speedily have evacuated itself, in the way indicated, of its own accord.

The import of this whitish semi-pultaceous mass found between the true echinococcus cyst and the tissues which had originally belonged to the liver, in the case of the right hydatid, is not, I would have you believe, so slight as might at first appear. It is not an uncommon thing to encounter these cysts in the liver, quite, as it is called, in an obsolete condition. There you find a mortar- or putty-like substance. Whence does it arise? In these, also, it is common enough to find the so-called hooklets of the parasite; but it has not, as far as I know, been determined as to the exact cause and mode of death of the parasite. The two, or perhaps I had better say the one specimen, placed before you may help to illustrate this. In the one—that opened by Mr. Barwell—the echinococcus sac had to be removed before the contained fluid would flow in any quantity; but the necropsy showed that the walls of the adventitious cavity—that, namely, due to the substance of the liver itself—was deeply eroded. What, then, are we to infer from this? Surely the lesson is clear that, where suppuration does occur in such-like instances, its seat is not within, but without the echinococcus cyst. In point of fact, it would be difficult to conceive it otherwise. It would be hard to understand how the inflammation and suppuration of a cyst similar to that of an echinococcus, entirely isolated as that is from any direct connexion with the walls of the liver-cyst, could give rise to such a modification of temperature as that indicated in the chart already submitted to you. Of course it is not right to found too much on a single case, but, as it seems to me, the case is typical; and I would have it that when suppuration in these cases does occur its *focus* lies mainly not inside, but outside the true echinococcus cyst-wall. I hardly think that this has been enough insisted upon even by the best writers on the subject; and if it be true, it throws a much more gloomy light on the value of simple aspiration for a suppurating hydatid tumour than is that commonly held. In this case aspiration was tried, altogether ineffectually—due, I believe, to the stopping of the needle by a daughter-cyst, or it may have been to the mother-cyst being pushed before the point of the canula. But the question of sound practice remains. Is aspiration sufficient in these cases? Is it enough merely to withdraw the purulent fluid? It has been shown satisfactorily that the withdrawal of the fluid is quite enough in ordinary simple hydatid tumours; but again, as a matter of experience, the result, as far as I know, is undeclared when the cyst has been converted into a suppurating mass. In such a case I fear there is nothing for it but to have recourse to the procedure we adopted. Freely to evacuate the contents of the cyst, wash it well out with dilute carbolic acid or some similar disinfectant, to cover the wound over with charpie or such-like absorbent material tarred or carbolised, to put the patient in the most favourable position for the escape of fluid; and beyond this to trust to good nursing and good feeding. Unfortunately that will not always succeed, as we have seen; but it gives the patient a chance when the case is otherwise hopeless.

These considerations lead to another part of our case. It was noted that at the latter part of the operation some few drops of bile escaped along with the fluid. This was soon followed by the enormous discharge of bile already referred to. But you must note that the whole of the liver secretion was not expelled in this way, for in the notes of Dr. Robert Smith, our Medical Registrar, and a most careful observer, it is stated, and I had myself an opportunity of corroborating the statement, that bilious vomiting occurred a day or two after the operation. This discharge of bile perhaps seems a little thing, but I think that it has large bearings. Thus, take for a moment into consideration the sudden stoppage of the urinary flow which occurred the day after the operation. On that day (Saturday) twelve ounces of urine were passed, and thereafter till Tuesday evening or Wednesday morning no water came away. Yet there were none of the ordinary symptoms of uræmia. Such a thing is not common. Uræmia, unfortunately, is well enough known to us all, but I fail to bring to memory any such case as this. And what were the abnormal conditions at the time existent? Merely those already noted: sickness, and a tendency to vomit, sometimes successful; but before and above all that, the enormous discharge of bile by the open wound in the abdomen. The two discharges—or, rather, the presence of the one and the absence of the other—can hardly, I think, be dissociated.

Here I would like to say a word as to the manner in which the suppression came to a close. I had recourse to a plan which I have reason to think is often useful; I mean the application of a digitalis poultice to the loins. I am not prepared to deny that a simpler kind of poultice would not have been equally beneficial, but a certain amount of experience has given me a degree of faith and confidence in that somewhat *bizarre* pharmaceutical preparation. And it would be well not to forget it; one can never have in these matters too many strings to his bow. In country places, where digitalis is to be readily had in the green state, all that is required is to procure the leaves, pound them well in a mortar to a pulp, spread this on a well-prepared bread or linseed-meal poultice as hot as can be borne, and apply to the loins. In practices where this is not possible, the best plan is to soak a piece of spongio-piline in water as hot as can be borne by the hands, wring it nearly dry, and saturate with the ordinary infusion of digitalis. This mode is what is called more elegant, but I doubt if it is more active than that just described to you.

The whole of this case is full of instruction, nor would I have ventured on thus occupying your time with one which appeared to me of less value; but whether we view it from a diagnostic, pathological, practical, or purely scientific point

of view, it seems to me to be one of unusual importance. One word more, and then I have done. In connexion with that extraordinary temperature-chart, would you, I beg, note the mode of death. That happened at last quite suddenly, and the vessels all over the body were found, some nearly, some quite, plugged up with blood-clot. The heart was in the same condition, and from the great vessels could be drawn long strings, partly decolorised, the result of the same process. In short, the poor woman, troubled with constant sickness, unable to digest anything given to her, exhausted with a steady and excessive discharge from her open wound, gradually got weaker and weaker, and finally sank, probably from the sudden occurrence of embolism, or, it may be, the gradual and progressive thrombosis.

Finally, I would again enforce the lesson that temperature-chart teaches. I believe that a few years ago such an one would have been impossible; but by what, with the proper circumlocution, men call nowadays "due antiseptic precautions," many things have become practicable which formerly were not so.

ORIGINAL COMMUNICATIONS.

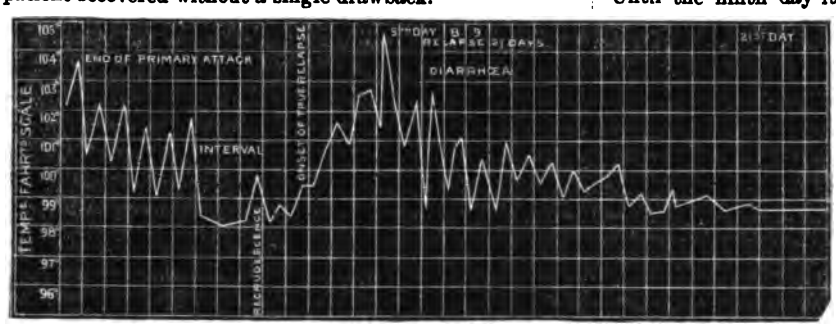
ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.A., B.Sc., M.D. Lond.,
Assistant-Physician to Charing-cross Hospital.

(*Continued from page 87.*)

I CONTINUE my series of relapses of typhoid fever with

Case 3.—A woman, aged about thirty, was first under observation during the later days of an attack of typhoid fever, and it was suspected from the history that she was then suffering from relapse rather than from a primary attack. However, this doubtful attack ended, the temperature remaining after its termination subnormal to the third day. There was then a rise of temperature from 98·2° Fahr. to 99·8° Fahr., which warned one of the possibility of relapse. The fever abated, but on the fifth day of convalescence a true relapse began, and the temperature ran up from 98·2° Fahr. to 101·7° Fahr. on the third day, and with little remission to 104·6° Fahr. on the fifth day of the attack. This was the highest level reached during the disease. An immediate tendency to fall followed, but on the seventh day came the most decided remission, for on the morning of this day the temperature had gone down to 98·8° Fahr. There was no diarrhœa, and no accident or treatment to explain this fall of six degrees. But on the following days diarrhœa was severe and dangerous, and, as will be seen from the chart, the temperature varied remarkably. There was, however, a tendency to its fall, though deep curves were regarded as suspicious of danger. On the tenth and eleventh days there was a new accession of fever of moderate extent, but this fever was more continuous than previously, and diarrhœa had ceased. The temperature abated gradually, day by day, and on the twenty-first day of the attack it was subnormal. Convalescence was at once established, and the patient recovered without a single drawback.



CASE 3: RELAPSE OF TYPHOID (a female, aged thirty).—On the third day after primary attack, recrudescence occurred. On the fifth day true relapse began. Temperature reached its height (104·6° Fahr.) on the fifth day of relapse; on the seventh morning it had fallen six degrees. Decided new accession of fever on the tenth day, from which the temperature gradually fell to normal on the twenty-first day.

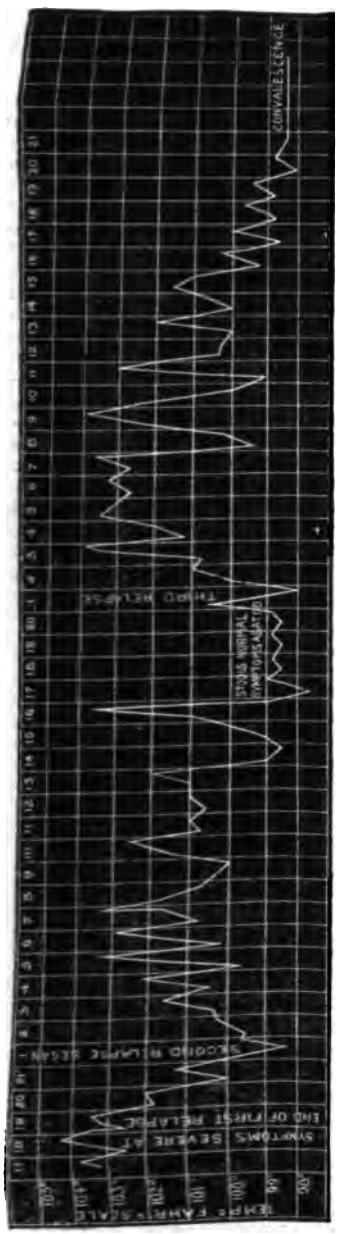
Case 4.—A married woman, about thirty years of age, first came under notice at the end of a severe and *undoubted* relapse of typhoid fever. On the second day after her admission, which was the eighteenth day of relapse, her temperature was 104·2° Fahr., and therefore high at this stage of the disease, and her general condition was very unfavourable. But on the twenty-first day of this relapse she was free from fever, and convalescence was expected; yet scarcely twenty-four hours elapsed before a second relapse set in, with all the appearances of primary typhoid fever. The temperature ran up with little interruption from 98·4° Fahr. to 101·6° Fahr. on the third day; and on the fifth day of the relapse it reached 103·4° Fahr., at which level (or near it) it continued to the eighth day, when it fell from 103·4° Fahr. to 100° Fahr. on the evening of the ninth day. It rose again on the tenth day from 100° Fahr. to 102·5° Fahr., and thence sank progressively to the twentieth day of the attack; there having occurred, however, through the fifteenth and sixteenth days a sudden rise from 98·6° Fahr. to 103·8° Fahr., followed by a sudden fall of great extent (to 97·6° Fahr.), during which the patient's state was critical, for there was a return of diarrhœa with typhoid stools, with new typhoid spots, and severe general symptoms—circumscribed flushing of the cheeks, a rapid pulse, tremor, and delirium. It is important to note the temperature in cases of relapse at or about the fifteenth day. In this particular relapse, however, the symptoms completely abated on the twentieth day, though the temperature for the last few days daily approached 99° Fahr. Again the patient seemed safe, but her convalescence was ephemeral. Immediately, almost, a third relapse began, and the temperature on the third evening was 104° Fahr.; on the fifth morning it was 103·5° Fahr., but the evening temperature was not noted. It remained high to the seventh day (103·6° Fahr.), but on the eighth morning came a decided fall (from 103·6° to 99·4° Fahr.), followed by a rise on the ninth evening to 104° Fahr. A deep remission (to 99° Fahr.) succeeded on the tenth day, and a new accession of fever on the eleventh (to 103° Fahr.), from which day the temperature sank gradually, reaching a subnormal level on the twenty-first day of the relapse. The disease had afterwards a favourable course, and the patient quickly recovered from her long illness. It should be particularly remarked that the steep temporary curves noted on the fifteenth and sixteenth days of the second relapse, and on the tenth and eleventh days of the third relapse, were accompanied, even when the temperature was low, by severe symptoms and indications of great danger. The patient was of a temperament which readily predisposes to delirium, and this was a common though varying symptom. Each attack was more severe than the temperatures (as far as height goes) would indicate, but severity seemed to be associated with irregularities in the fever-chart rather than with particular levels. The rapidity with which the woman recovered after so protracted an illness was remarkable. (See chart on next page.)

Case 5.—A male, twenty-one years of age, was admitted into Charing-cross Hospital (under the care of Dr. Pollock) during an attack of typhoid fever. The history of his disease was obscure, but, sixteen days after his admission, fever had entirely gone, and convalescence started. During this convalescent period the temperature was all but always subnormal for six days, when relapse set in, and the temperature ran up rapidly to 104° Fahr. on the fifth day of the relapse. Until the ninth day it remained at about the same level (103·6° to 103·8° Fahr.), and on this day it fell—suddenly, so to speak—three degrees. There was another exacerbation on the tenth day to nearly 103° Fahr., but the temperature at once abated, and on the sixteenth day of the relapse it reached the subnormal, and continued subnormal for several days, during which the patient entered on a rapid convalescence. In this case constipation was decided throughout, and there was much probability that the patient when admitted was suffering from relapse following ambulatory typhoid, rather than from a primary enteric fever. The general course of the disease was exceedingly favourable: the stools were typhoid in character, but there was scarcely any diarrhœa, and the eruption was,

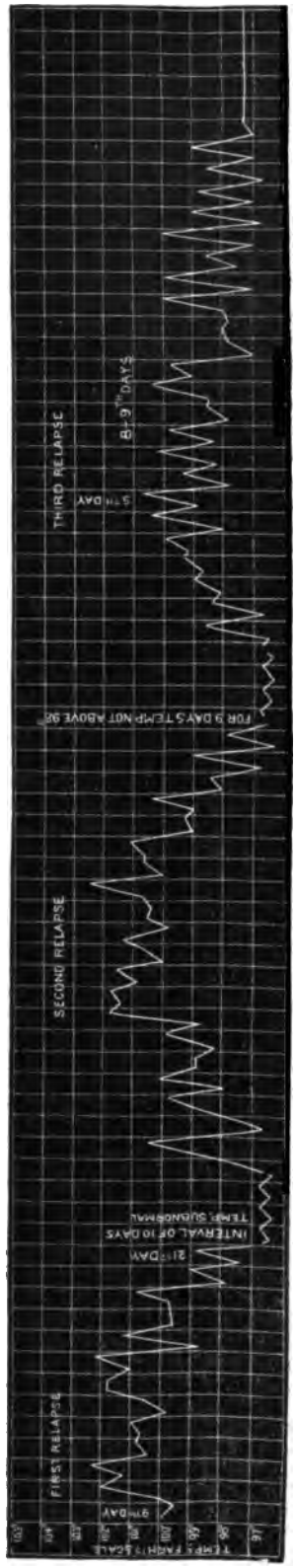
though characteristic, not abundant. I do not give the chart in this case.

Case 6.—A female, aged twenty-seven, was admitted into Charing-cross Hospital (under the care of Dr. Pollock) in July, 1877. She was suffering from typhoid fever, and her history indicated that the attack at the time of admission was a primary relapse; for she gave an account of a febrile disease lasting about a month, from which she appeared to be recovering for several days when she again fell ill. She was admitted on the ninth day of this second illness, and on the evening of this day her temperature was only 99·6° Fahr. It rose on the *tenth* day to 102° Fahr., and thence sank *irregularly*, but on the twenty-first *morning* became subnormal, and continued *below* 97° Fahr. for ten days with *all the evidence* of convalescence. Then a warning recrudescence occurred; the temperature rose from 96·5° Fahr. to 100·4° Fahr. within a few hours, but fell again immediately to 96·8° Fahr. Then a second relapse began, and ran a somewhat typical course, though in it the temperature was never high. The fever did not reach its height until the sixth day. In the first twenty-four hours of relapse it ran up three degrees from 96·8° Fahr. to 99·8° Fahr. On the fifth day the temperature was only 100° Fahr., but, as may well be supposed in so mild a case, the thermometer was not used with regularity, so that, though the case is of general value, reliance cannot be placed on the heights reached on particular days. On the sixth evening the temperature was 101·8° Fahr., and thenceforward tended to descend to the tenth day, on the evening of which it was only 99·8° Fahr. A rise followed, and on the twelfth evening the temperature was 102·4° Fahr. In following days it fell with little interruption, and on the twentieth day of this relapse became subnormal. The temperature was therefore throughout never high, and yet from the sixth to the twelfth days, during which the fever did not abate, the patient was evidently not free from danger. The relapse ended, and for nine days the temperature never reached normal levels—it was, in fact, during this time always below 97° Fahr., and usually about 96·2° Fahr. But a third relapse set in during what seemed a permanent convalescence. A warning recrudescence occurred again. The temperature rose from 96·3° Fahr. to normal, and fell at once to 96·6° almost immediately; and as immediately, a true relapse (a third relapse) began, in which the temperature ran up from 96·6° Fahr. to 100·6° Fahr. on the fifth day. There was a rise, therefore, of four degrees during this period, and not until the eighth day did there come a decided tendency to fall. On the ninth morning the temperature was only 97·8° Fahr., but on the tenth evening it was 100·4° Fahr. This new accession of fever was comparatively slight, and on the twelfth evening the temperature was only 97° Fahr.; and thenceforward to the twenty-first day of the relapse the temperature exhibited modified curves of those met with in the fourth week of primary typhoid. The temperatures were never high in this case, which is an exceedingly good illustration of what we meet with in "ambulatory typhoid" with mild relapses, and had not the thermometer been used daily I do not see how relapse could have been diagnosed. As may well be supposed, the general evidences of typhoid were often insignificant—as in ambulatory cases,—but typhoid stools were occasionally passed, and suspicious spots met with. Constipation was, however, a prominent symptom throughout, and continued during the patient's complete convalescence. Yet we cannot doubt that Peyer's patches were more or less affected in each attack, and probably, in the absence of other explanations, recrudescences which were met with after the third relapse were due to mischief in them, though this mischief had lost its specific character.

(*To be continued.*)



Case 4: Three Relapses of Typhoid (a female, aged thirty, married).—Admitted during *first* relapse, which ended on the twenty-first day. A *second* relapse set in at once, in which temperature reached its height on the fifth day. On the eighth-ninth days it fell from 103·4° Fahr. to 100° Fahr.; it thence sank progressively to the twentieth day. An exacerbation occurred on the fifteenth day. A *third* relapse began, in which the fever rose rapidly to the third day, and thence to the fifth day. On the tenth day came a deep remission, followed by a rise, from which the temperature gradually reached subnormal levels by the twenty-first day of this third relapse. (*Vide text.*)



Case 5: Three Relapses of Typhoid Fever (a female, aged twenty-seven).—Patient was admitted during a first relapse, which ended on the twenty-first day. After nine days of apyrexia came a temporary recrudescence. Then a second relapse occurred, which may with value be contrasted with other cases. A third relapse was met with. Compare the low temperatures in these relapses with others recorded. (For particulars, *vide* text.)

THE PARIS NIGHT-SERVICE.—According to Dr. Passant's report for 1878 there have been 3751 night-visits paid by this service, viz., 1286 to men, 1879 to women, and 586 to children—men thus giving a third, women a half, and children a seventh, of the total. The service has been undertaken by 664 doctors and 106 midwives.—*Gaz. des Hop.*, January 16.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

CASE OF INTRA-THORACIC TUMOUR.

(Under the care of Dr. STONE.)

E. E., a musician, aged thirty-five, was admitted into Arthur ward on October 8, 1878. Stated that he had been taken ill three months previously with cough, hoarseness, and short breath, accompanied by general weakness, but without pain or feverish symptoms. Three weeks ago he became much worse, the voice being lost, and the cough harsh, frequent, and stridulous. He had been in good health for the last eighteen years; had never had hæmoptysis, syphilis, or any other constitutional disease. His friends, however, had noticed that he had been getting thinner, and appeared "much changed" during the preceding nine months. His father died, aged forty-two, of dropsy; his mother was still alive; there was no history of phthisis in the family.

On admission, he was suffering from dyspnœa. The voice was husky, the throat free from pain even when talking, and also devoid of laryngeal tenderness or swelling. At intervals of a few minutes he was seized with a severe paroxysmal cough, lasting for thirty seconds or more, preceded or followed by a shriek or whoop. On laryngoscopic examination, both vocal cords were to be seen lying open, of a pearly-white glistening appearance, but much curved and relaxed; especially the left, which was distinctly paralysed, and all but hidden beneath the wall of the orifice.

On examination of the chest, the left lung was found to be dull in its upper third, with a sharp line of demarcation between the dulness and resonance. Over this space, obscure *bruit de pôt-fêlé* was to be detected, with peculiar metallic tone. Large gurgling sounds and pectoriloquy, with harsh cavernous breathing, were audible. Right lung resonant. The temperature on admission was 102·2°; it rose on the following evening to 103° (its highest point), and settled down to about 101°, where it remained without much oscillation for the remaining twelve days of life. The heart's apex could be felt beating between the fifth and sixth ribs. The dulness was not increased; the sounds were normal. The urine was of specific gravity 1020, containing no albumen. The tongue was very foul; the appetite bad; difficulty of swallowing solids. There was no difference in the size or sensitiveness of the pupils; no subjective nervous sensations; no decided difference between the radial pulses, nor any appreciable pulsation of the thoracic parietes. A diagnosis of intra-thoracic tumour, not aneurismal, was made.

October 11.—No change in symptoms. The circumscribed dulness of the left lung complete, terminating abruptly at the upper border of the third rib anteriorly, and at the level of the fourth in the axilla.

13th.—More quiet under the influence of tinct. aconiti ℥v. sextis horis cum infus. digitalis ʒss. The cough, though less frequent, was more stridulous and paroxysmal; the scanty, tenacious expectoration streaked with blood.

20th.—Continued to sink, without material change in the character of the disease, until this day, when he died about 7 p.m., apparently of asthenia.

The only other treatment employed consisted in the administration of bromide combined with iodide of potash, and latterly in hypodermic injections of morphia and atropine.

Post-mortem Examination, nineteen hours after Death.—Body was well nourished. Rigor mortis marked. Larynx natural. Right pleura natural, and pleura adherent over outer surface of the upper lobe and lung. Right lung congested; otherwise normal. Left lung: Upper lobe consolidated and infiltrated with greyish-looking new growth, especially towards its root, and broken down into cavities with irregular walls, varying in size from that of a walnut to that of a hen's egg, containing a brown fluid. The new growth seemed to infiltrate the lung along the sides of the larger bronchial tubes, here and there being patches of lobular pneumonia between the streaks of new growth. In the middle mediastinum, and in the left side of the superior, was a tumour about the size of a fœtal head at full term; irregular on surface, of greyish colour and firm consistence, proving, under the microscope, to be a small, round-celled sarcoma. The new growth involved the bronchial glands and the roots of both lungs, especially that of the left, extending into the superior mediastinum on the left side almost to the upper aperture of the thorax. Along the front of the tumour ran the left phrenic nerve, the left vagus and left recurrent being completely bedded in its substance. The new growth surrounded the second and third parts of the aortic arch, pressing on the trachea at its bifurcation, and the œsophagus about its middle, but not involving their walls. It also projected into the pericardium on its left side, and at the posterior aspect of its base. (Tumour sent undissected to museum.) With the exception of the spleen, which weighed fifteen ounces, and measured six inches vertically, being congested and friable, all other organs were healthy.

LOCK HOSPITAL.

PERINEAL FISTULA CURED BY DIVISION OF A STRICTURE OF THE MEATUS.

(Under the care of Mr. BERKELEY HILL).

During September, 1878, S. B., aged forty-eight, came to the out-patients' room with the following history. About twenty years ago he had a very severe attack of gonorrhœa, which took four months to get well. For six years after this he considered himself quite well, and had no difficulty in passing his water: but soon he had difficulty to such an extent as to cause occasional attacks of retention. It was following one of these, about eighteen months after his troubles began, that he had an abcess in his perineum, resulting in a perineal fistula, soon followed by another. He received various treatment, instruments being used by several surgeons, but without relief, and he came complaining that during the last month or two attacks of retention had been very frequent. When examined, the following condition was found. In the perineum were two old and callous fistulæ, discharging pus and urine. At the orifice of the urethra was a stricture admitting No. 7 (French measurement) catheter. This Mr. Berkeley Hill divided (with Otis' meatome), and passed No. 20 (French) catheter into the bladder. He found the urethra slightly contracted in the bulbous portion. After this the patient attended every other day for about a fortnight, and had instruments passed, and on October 1st, 1878, the note says—"27 F. into bladder with ease; fistulæ closed." The man's health was wonderfully improved, and he has left off attending.

It is interesting to see how such a disgusting and annoying complaint, accompanied by frequent retention of urine, was cured by removing its cause; and this was done, without any difficulty, when the patient was attending as an out-patient, and when he was carrying on his usual daily business. It is not improbable that these cases are more usual than is at present thought.

Eucalyptus in a Cold of the Head.—Prof. Strambio, in a note in the *Gas. Med. Ital. Lombard.*, January 11, says that, notwithstanding the failure of all the remedies hitherto recommended for the immediate cure of a cold, he wishes to communicate to the profession the great success he has found attending a new one in his own person, and to ask them to test its efficacy. He found prolonged mastication and swallowing of a dried leaf or two of the *Eucalyptus globulus* almost immediately liberated him from all the effects of a severe cold.

Cost of the Paris Hospitals.—From a table of the comparative annual expenses of the Paris hospitals and hospices, we extract the following figures. At the Hôtel Dieu, with 514 beds, the annual expense per bed is 1194 frs.; and at La Charité, with 472 beds, it is 1096 frs. The Clinique, with 74 beds, is the hospital which costs most, viz., 1847 frs. per bed; and the Ménages, with 1387 beds, is the hospice which costs least, viz., 399 frs. per bed. The department of the Seine has twenty-seven hospitals and hospices, which contain 18,000 beds, the mean annual expense per bed being 877 frs. These sums are entirely for maintenance, and do not comprise the interest on capital employed.—*Union Méd.*, January 14.

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Medical Times and Gazette.

SATURDAY, JANUARY 25, 1879.

WEATHER AND MORTALITY.

Mr. A. Buchan and Dr. Arthur Mitchell have contributed to the proceedings of the Scottish Meteorological Society the record of a prolonged and careful series of observations on the influence of weather on mortality. London has been selected by the observers as the most satisfactory sphere for their primary investigations, because it affords (1) an enormous population spread over an area so limited that it might be regarded as having one uniform climate during each of the seasons of the year; (2) full weekly reports, giving returns of the deaths from the different diseases; and (3) returns extending over a sufficiently long period. In their inquiry they embrace the thirty years beginning with 1845 and ending with 1874, and the progress of their investigations has led them to conclude that, unless for diseases which seem to be directly and immediately under the influence of temperature, an average weekly death-rate of about twenty for a period of thirty years is required to furnish the data for the construction of a curve of the weekly death-rate, smooth enough to be regarded as a satisfactory *constant* of the mortality from that disease as distributed over the weeks of the year. The authors accept and deal with the causes of death as given by the Registrar-General, and they also treat the deaths as having taken place in the weeks in course of which they were registered. Though the latter condition cannot fail to affect to a slight degree the certainty of the results, still it is claimed that this drawback will not operate prejudicially to any important extent. There are no materials which would make it possible to determine the relation between weather and attacks which terminate in recovery, so that the observations are necessarily confined to fatal forms of the diseases under investigation.

It has to be carefully borne in mind that the conclusions adduced are applicable to London alone, and that the continuation of observations in other regions will yield differences in the results—modifications which will be useful in determining what elements of climate conduce to the production of particular kinds of disease.

The conclusions at which Mr. Buchan and Dr. Mitchell have arrived are mainly expressed in a long series of readily intelligible charts, beginning with a representation of the deaths of both sexes at all ages and from all causes for thirty years, showing (1) a high and prolonged maximum extending from the middle of November to the beginning of April, and (2) a high but short continued secondary maximum from the middle of July to the middle of September. From this chart it also appears that the absolute minimum of the year occurs in the middle of June, and the secondary minimum in the second week of October. There is a rapid increase in the death-rate from the second to the fourth week in July, and a long-continued steady rise from the second week of October to the second week of December. From the beginning of April to the middle of June there is a rapid fall, and another from the middle of August to the second week of October.

The curves indicating the prevalence of mortality from different forms of disease differ widely from each other, and none of them resemble the general curve for all diseases. To enable the eye to observe at once weekly variations above and below the mean mortality for the year, a line indicating the mean mortality from each disease is represented in each chart, and the weekly variations constitute a line running above, below, and across the mean, in accordance with the weekly mortality from the special disease.

The following statement embodies some of the results which have been reached by Mr. Buchan and Dr. Mitchell:—

The mortality from small-pox is seen to be above the average from Christmas till the end of June, the maximum being in the last week of May, and the minimum in the last week of September. On dividing the period from 1840 to 1874 into subordinate periods of five years in each, the excess of deaths in January, as compared with September, is seen to be constant, the excess varying from 21 to 164 per cent., the average excess for the period being 72 per cent. The authors justly think that the constancy of these results in the case of a disease like small-pox, which is generally thought to have no steady relation to season, is remarkable.

In measles there is a double maximum and minimum during the year, the larger maximum occurring in November, December, and January, and the smaller in May and June; while the larger minimum is in August, September, and October, and the smaller in February and March. The curve for measles is one of the steadiest from year to year, both maxima being well marked in nearly every one of the thirty years in December and June respectively, the minima also being fairly regular.

In scarlatina the period of the highest death-rate is from the beginning of October to the end of November, being nearly 60 per cent. above the average. In each of the thirty years the deaths increased at the time of mean maximum, and in all except four of the years the increase was considerable.

In erysipelas the mortality rises rapidly from the last week of October to a maximum, which is reached in November, and it is instructive to observe that the curve for puerperal fever follows the same course.

Dysentery, diarrhœa, and cholera have a seasonal mortality which is important and interesting on account of their sudden increase of fatality during the hottest weeks of the year, and their equally sudden arrest during the colder season. In dysentery the death-rate begins to rise steadily about the middle of June, increasing till the second week of September, when the maximum occurs. It then suddenly

falls till the middle of November, and remains under the average till the beginning of June. The absolute minimum occurs in April and May. From diarrhœa the deaths begin to increase with the first week of June, rising moderately till the middle of July, and then increasing with great rapidity till a maximum is reached in the beginning of August. With regard to cholera it is submitted that thirty years is too short a period to furnish data for a smooth curve for a disease which is liable to be so greatly increased by epidemics recurring at distant intervals; but an interesting observation is made regarding the group composed of diarrhœa, dysentery, cholera, and simple cholera—namely, that the four curves of their mortality group themselves into pairs, diarrhœa and British cholera being on the one side, and dysentery and cholera, including Asiatic, on the other. The two former have a mortality which rises markedly in the beginning of June, and reaches a maximum in the last week of July and first two weeks of August. From the two latter diseases the mortality begins to rise a week or a fortnight later, and does not reach a maximum till the second week of September. There is a corresponding variation in their decline. The authors assert that these curves are, in all their essential features, produced from year to year. In very hot summers the number of deaths is much increased, and in colder summers there is a marked diminution.

In rheumatism the minimum mortality occurs in August and the beginning of September, and a rise then reaches a maximum in the end of November and the beginning of December. In the spring months there is a diminution of mortality; but the deaths continue, as a rule, to exceed the mean mortality of the year till the end of May.

As might have been anticipated, deaths from privation are much more numerous in the winter months than in summer, and the curve showing their progress of mortality resembles closely that indicative of mortality from pulmonary diseases. Delirium tremens gives a well-marked curve which resembles no other. It rises above its average in the middle of May, reaches its absolute maximum in the latter part of July, and again falls to the average on the last week of September. Its absolute minimum is during the first half of December, and it continues below the average from October to the middle of May, with the singular exception of Christmas and the New Year time, when there occurs a short secondary maximum.

In thrush the seasonal variations are almost identical with those which characterise bowel complaints, and are almost equally constant. In tabes mesenterica also the pictorial representation of the weekly progress of mortality shows a striking resemblance to that of the special abdominal type.

Phthisis supplies one of the most constant curves of seasonal mortality. The absolute minimum of deaths from this disease occurs in the third week of September, after which the death-curve begins to rise steadily. In the middle of November it advances more quickly, and during the last three weeks of December it falls a little. It rises again in the beginning of the year, and remains steady till the second week in March, when it reaches the annual maximum during March, April, and May. From the middle of July to the middle of November it is below the average.

Bronchitis, pneumonia, and asthma supply a most interesting chart, and one which contrasts strongly with that representing the mortality from abdominal diseases. Bronchitis has its minimum during the summer months. The death-rate begins to rise in September, and increases very rapidly from the middle of October to the first week in December, reaching an absolute maximum in the second week of January, after which it continues to fall slowly till the end of March; its fall is then more rapid, till in April it crosses the mean line, and reaches a minimum in summer. The observers note that this curve is constant from year to year, and that any variations which do occur follow the variations of temperature, being deviations in degree, and not of kind. Pneumonia and asthma follow much the same curve.

In kidney diseases the weekly divergences from the mean appear to be slight.

Deaths by suicide, when all different forms are simultaneously estimated, present a well-marked line of weekly occurrence. The maximum period is from the last week of April to the third week of August, the absolute maximum being in June, the minimum in the beginning of February. From September to March the deaths from suicide are under the average of the year. But when specific forms of suicide come to be considered, striking divergences are noticeable. Deaths from suicide by wounds are above the average from the middle of March to the end of August, April and June being the two highest months; and under the average from the beginning of September to the middle of March, with the exception of a short rise in the beginning of the year. Suicides by poison are more indiscriminately practised, and no seasonal order can be traced in them. Suicides by drowning are above the average from the last week of April to the end of September, but by far the largest number are committed in May and June. It is pointed out that this maximum is quite different from that which characterises deaths by drowning as a result of accident or negligence, in which a decided maximum occurs in July and August. The maximum in suicide by hanging is reached between the last week of March and the first week of July; so that the pronounced suicidal calendar, so to speak, is—hanging from March to July; stabbing, cutting, or shooting from March to August; and drowning during May and June, other parts of the year being "close" as a suicidal season unless for poisoning, which is always equally open.

The Meteorology of London is next considered, and, on the assumption that climate is mainly determined by temperature and moisture, the year is divided into six periods, starting from the fourth week of October. These periods have as climatic characteristics (1) dampness and cold, (2) cold, (3) dryness and cold, (4) dryness and warmth, (5) heat, (6) dampness and warmth. The fluctuations in the weekly mortality of different diseases are then examined in accordance with this classification, and we would refer our readers to the *Journal of the Scottish Meteorological Society* (Nos. 43 to 46 and 55 to 56) for information on this head. They will also find a valuable series of observations on the influence of weather on deaths at different ages, and a number of formidable tables containing the materials on which the authors have founded their calculations and conclusions. We venture to say that few would be prepared to question the accuracy of their results, especially if such scepticism involved the revisal of their calculations; and there can be no doubt that all who are intelligently interested in the scientific observation and classification of vital facts will willingly accept the conclusions arrived at by Mr. Buchan and Dr. Mitchell, and gratefully recognise the difficulties with which they have successfully contended, and the value of the observations which they have recorded.

We cannot at present consider fully the authors' more recent paper bearing on the periodical mortality of New York as compared with that of London. It is sufficient to say that it discloses divergences from the conclusions arrived at with regard to the English centre which are strictly in keeping with climatic modifications; so that the latter series of observations yields to the earlier that form of corroboration which is of the greatest value, namely, that which results from the harmonious co-ordination of exceptions.

"THREE MONTHS IN THE PAYING WARD OF A LONDON HOSPITAL."

A PAMPHLET bearing the above title, but having no author's or authoress's name attached to it, has reached us. It is, however, the work of a person of some attainments, and is published by the highly respectable firm of Sampson Low and Co. The writer in her preface (for it is a feminine composition) concludes thus—"I pledge my word that there is no exaggeration in my statements." Without some such assurance, fortified as it must be by the repute of the publishers, we would hardly have ventured on referring to the *brochure* now before us.

There are certain statements in the book which inevitably lead those in the least degree acquainted with medical London to a guess kind of knowledge of the institution referred to. The writer, a lady in somewhat reduced circumstances, but not altogether poverty-stricken, was suffering from one of the diseases incidental to women. She disliked going into the ordinary wards of a hospital, but was unable to procure the necessary attendance at home. Accordingly she resolved to enter the pay wards of a women's hospital. There are not very many in London. Moreover, this particular hospital was adorned by painted boards inviting the passers-by to "drive slowly." We only know of one institution possessed of the double characteristic, and it is in the neighbourhood of Soho-square. There is still further the picture of a physician which is unique in its character; and there are not many gentlemen whom the cap would fit so well as a well-known member of that staff. There are other minute traits, more or less diagnostic, but we may leave them alone. They are sufficient, as it seems to us, to induce the authorities of the hospital in question to make a thorough investigation of the facts or fancies embodied in the pamphlet we refer to. The burden of the tale is neither more nor less than an impeachment of the general management of the institution described; and, if we are right in our surmises, this would be nothing new in Soho-square. But the prime front of offending seems to have been the Matron. The House-Surgeon may be looked upon as a shade better, though described as a "young man with long hair, and of neglected appearance"; and next to these would come, we suppose, the Matron's pet dog. There are not a-wanting evidences in the pamphlet that its writer was what could hardly be called a model patient; very likely she was troublesome. But that would never justify the ill-usage she and her fellow-patients are said to have received at the hands of the resident officials. For the physicians and nurses she has nothing but good to say; her wrath is reserved for another category in the official world. As an illustration, however, of the plan of conduct pursued by the writer we may refer to a single incident. The diet, according to her, was not only deficient in quantity, but bad in quality, and this persistently so. Now, under such circumstances we should have thought that the natural course would have been to appeal to the attendant physician, but instead, this lady drew up a round robin, which was circulated for signatures not only in her own ward, but in all those on the same floor. In most hospitals, however, such a document forwarded to the proper quarter, however unreasonable, would have received due attention; but here it was returned because it had not been forwarded through the proper channel—that was the Matron, the personage chiefly implicated. The result was also characteristic: a gently remonstrative lecture, waxing in *crescendo*, from the good Physician was all that came of it.

Evidently there is in this little pamphlet much which internal evidence would cause us to endorse as a true bill; but to our mind there is also much that is indicative, if not of exaggeration, intentional or unintentional, at least of the undesirability of such paying wards and paying patients. But we are not quite sure that we are not bound to turn the tables still farther on the authoress. We have an idea, which under the circumstances we can hardly verify, that the condition of things described has been abolished years ago. That many of these hole-and-corner boroughs are hotbeds of scandal is a matter for which they have themselves to blame. But we must say this: that if the events here described occurred years ago—and there is no date to which to refer—the pamphlet is grossly unfair, and deserves no mercy.

THE WEEK.

TOPICS OF THE DAY.

A CORRESPONDENT of the *Daily Telegraph*, writing from St. Petersburg, states that authoritative particulars received concerning the outbreak of plague in Astracan, although startling, do not justify the panic which has prevailed on the subject for some time past. The first cases appear to have declared themselves at Vetlianki, in the Astracan Government, towards the end of December; and since that date only 292 persons have been seized with the epidemic. Of these, forty-six have recovered, while 246 cases have proved fatal. The physicians on the spot are reported as not having yet recognised the exact nature of the disease, but suppose it to be of a typhoid character, resulting from reckless neglect of all sanitary precautions. It is further announced that, in consequence of this outbreak, the Russian War Office is drawing up a fresh plan for disinfecting all troops arriving from Turkey; and that, pending the issue of the new instructions, the commanders of the occupied districts have received orders to despatch no invalids or soldiers to Russia. Notwithstanding the denial by the Russian Government that there is any real cause for alarm, the German and Austro-Hungarian Governments have taken precautions to guard their frontiers against the extension of the epidemic, and, in the instance of at least one railway, through traffic has been interdicted.

The special meeting of the Guardians of the North Union, Dublin, previously announced, for the purpose of considering the present exceptionally high death-rate of the city, was held last week. It was shown that small-pox was still on the increase, and that the number of cases had been trebled in two months. There were, at the present time, under treatment in the hospitals of the city 253 small-pox cases, whilst the cases under treatment in private houses were estimated at a much higher number. It was proposed to appoint a special cleansing commission, and to make a thorough investigation of the whole town area. One of the Guardians thought that too much importance was attached to the weekly returns of the Registrar-General, and he stated that the previous week, when the death-rate was quoted at fifty-one, no fewer than twenty deaths were included, although they were those of persons who had died three months ago, the interments taking place during that period from anatomical hospitals. No contradiction was given to this assertion, which, if correct, materially affects the exceptionally high rate quoted. Nevertheless, there can be no doubt that the time has arrived for active measures; the generally neglected condition of the city, particularly in the low districts, is universally admitted, and it must be a matter of some satisfaction to the inhabitants to know that, after a long discussion, it has been resolved to request the Local Government Board to issue a commission of inquiry.

A meeting of the Stafford House Committee was held last week, at which the draft of a report to the subscribers to the fund was considered. This report is intended to explain

how, in addition to the blankets, warm clothing, and medical comforts first sent out from Stafford House, a number of surgeons were despatched to the seat of war, who treated upwards of 20,000 on the field of battle or in the ambulances, while 30,000 more were treated in hospital. The soup-kitchens supplied about 140,000 rations to sufferers, and the beneficial influence and example of the English surgeons made itself felt far and wide.

In a recent case (Reg. *v.* Dean) of a criminal assault on a girl under twelve years of age, tried before Mr. Day, Q.C., sitting as Commissioner, it was proved in evidence that the girl had been delivered of a full-grown child, which is still living, at the age of twelve years and one month. The prisoner, who was the girl's stepfather, was convicted of the felony and sentenced to ten years' penal servitude. It is stated that with the exception of two anonymous cases quoted in Taylor's work on Medical Jurisprudence, this is the earliest age of delivery recorded as having occurred in this country.

A Local Government Board inquiry was recently held at Hove, Brighton, the Commissioners having petitioned for leave to borrow money for carrying out certain works, including the erection at Portalade of a hospital for infectious diseases. Strong opposition was manifested to this part of the Commissioners' scheme by the owners and occupiers interested in the property in that parish; and Mr. Radcliffe, who with Mr. Arnold Taylor, the inspector, had viewed the site of the proposed hospital, and examined the plans, having thought the latter not sufficiently explanatory in detail, the Commissioners decided to withdraw their application so far as the hospital was concerned. Evidence with regard to works for sewerage and sea defences was given, and Mr. Taylor promised to make his report as soon as possible.

Some interesting details are given of the method of carrying out the work of excavating the Gothard tunnel. Most of the labourers employed in the galleries are Italians; they work night and day in shifts of eight hours each, and their labour is described as being terribly severe. The heat is so great that they can wear no clothes whatever; they return to the mouth of the tunnel streaming with perspiration, their faces yellow and ghastly; they cannot bear the light of the sun, and they walk with bent shoulders and stagger as if carrying heavy burdens. A surgeon is always on the spot, accidents being frequent, and ample hospital accommodation is provided for the sick and hurt. The Gothard tunnel is already bored from both sides a distance of 13,481 yards, which is twenty-three yards longer than the Mont Cenis tunnel; about 3000 yards still remain to be excavated, and it is hoped that this will be completed in another twelvemonth.

As continued pressure is being placed on the Metropolitan Board of Works to proceed with the several schemes undertaken by them under the Artisans' Dwellings Acts, it is to be hoped that some results may shortly be witnessed. At the last week's meeting of the Board, the Works and General Purposes Committee submitted a draft letter in reply to one from the Home Office, urging the Board to further, as much as possible, the Limehouse and other schemes, under the Act before quoted, which had already been presented and passed. The Committee recommended that the Home Secretary should be informed that, as far as the Board was concerned, no delay had occurred; and that a schedule and maps of the lands proposed to be taken compulsorily for the Whitecross Improvement Scheme be sent to Mr. Cross, with a recommendation that an arbitrator be appointed according to the provisions of the Act. These recommendations were approved.

Before Vice-Chancellor Sir Richard Malins a case was heard last week, in which an owner of property applied for an injunction to restrain the Local Board of Twickenham from continuing to use a man-hole which was constructed close to a house belonging to him, and through which access was obtained to the common sewer. There was evidence to show that scarlet fever had existed in the district, and that one case in particular had probably been caused by the effluvium arising through the man-hole in question. The plaintiff also sought to restrain the defendants from opening any other man-holes in the same locality, they having given notice of their intention to do so. The Vice-Chancellor said the questions raised in this case could only be determined at the hearing, but in the meantime the defendants must take means to cover up the man-hole in such a manner that no effluvium could arise from it, and further that they must undertake not to proceed under their notice as to opening fresh holes without giving the plaintiff a week's notice of their intention, in order that the plaintiff should have time to take such proceedings in the matter as he should be advised.

The annual report of the Devonshire Hospital, Buxton, for the year 1878, is again of a satisfactory description. The number of in-patients admitted has been nearly trebled since the first and second years of the establishment of the institution, and last year amounted in number to 1575; of these 1459 were discharged as having been relieved, 55 as no better, 4 left without report, 22 were discharged at their own request, 5 had to be discharged for drunkenness, 5 died, and 25 remained on the books at the end of the year. The average number of patients daily resident in the Hospital throughout the year was 104, and the average number of days in hospital per patient was 24. During the year, Dr. F. K. Dickson has resigned his position as one of the Honorary Medical Officers of the Hospital, and has been unanimously appointed to the position of Junior Consulting Physician; and Mr. Arthur Shipton, M.R.C.S., has been elected to fill the vacancy created by Dr. Dickson's retirement.

The return of the Registrar-General for the week ended the 11th inst. gives the mortality from all causes as equal to an average rate of 28 deaths annually in every 1000 persons living in the United Kingdom. The annual death-rate was 23 per 1000 in Edinburgh, 28 in Glasgow, and 45 in Dublin, in which latter city 18 of the deaths were caused by small-pox. The annual rates of mortality per 1000 in the twenty English towns for the period under notice were as follows:—Brighton, 14; Portsmouth, 16; Oldham, 19; Sunderland, 21; Newcastle-upon-Tyne, 22; Bradford, 22; Hull, 22; Leeds, 23; Leicester, 23; Sheffield, 24; Wolverhampton, 26; Nottingham, 26; London, 27; Norwich, 28; Bristol, 30; Birmingham, 31; Plymouth, 32; Liverpool, 32; Manchester, 35; and Salford, 36. In London, allowing for increase of population, the deaths exceeded by 155 the average numbers in the corresponding week of the last ten years—a result largely contributed to by diseases of the respiratory organs, which proved fatal to 629 persons, as against 555 in the preceding week.

At the recent collection in Liverpool for Hospital Sunday the fears which were entertained last year as to a satisfactory result were somewhat realised. The receipts in many of the principal places of worship showed a decided decrease—due, no doubt, to the great depression in trade of every kind, and in some measure to the dreary weather, which undoubtedly told upon the numerical strength of the different congregations. On the other hand, it is satisfactory to note that the total sum received in Dublin for the Hospital Fund at the recent Sunday collection was £4232—an increase on the amount realised by the collection last year.

CHRONIC NEPHRITIS.

The able and interesting paper "On the Effects of Rest, Diet, Exercise, etc., in Chronic Nephritis," by Drs. E. I. Sparks and J. Mitchell Bruce, read at the Royal Medical and Chirurgical Society on the 14th inst., has a real value as a contribution of carefully observed and recorded facts on points of treatment regarding which we are in need of increased reliable information. The authors showed the relations of the amounts of urine, albumen, and urea to each other in the patient on ordinary mixed diet and whilst taking ordinary exercise; and then gave the results of experiments with absolute milk diet, non-nitrogenous diet, excess of eggs, and nitrogenous diet with water, respectively, and also the effects of rest, of exercise, and of the administration of digitalis, upon the amount of albumen and of urea, and on the specific gravity and the total amount of the urine. The principal conclusions arrived at are—that the amount of albumen was reduced by milk diet and by non-nitrogenous diet; that the effect of the milk diet was not merely due to the albumen being more than ordinarily diluted, for ordinary diet, with an equal amount of water, did not produce the same result; that the effect of non-nitrogenous diet was decided, was not immediately produced, and persisted some time after the re-ingestion of nitrogen; and that absolute rest markedly reduced the amount of albumen. The authors do not pretend to draw settled general conclusions from their experiments, to be applied universally in Bright's disease, but think that their observations indicate that certain factors beyond the disease-process had to be regarded in this case of albuminuria; these factors must be physiological facts which are still unknown, which evidently are related to the processes that occur between the digestive organs and the kidneys, and which, being physiological, must be taken into account in *every* case of albuminuria; and that diet and rest are of the greatest importance in the treatment of albuminuria. Much has been written lately on intermittent albuminuria, and the results obtained by the authors suggest that all cases of albuminuria not intermittent are probably remittent. They do not accept the explanation of the increase of albuminuria by exercise as always due to increased pressure; and their view on this point is supported by Dr. Quain's account of a case in which albumen was present largely in the urine after breakfast, and declined very greatly during the day. One of the most remarkable points about the paper is the fact that the great majority of the laborious and careful investigations were made by the patient himself, who is a medical man suffering from chronic phthisis, chronic heart-disease, and chronic nephritis—the urea, albumen, specific gravity, and total amount of the urine being estimated five times daily for weeks. Such an investigation, in such circumstances, shows wonderful courage, determination, and love of scientific truth and research.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

A general meeting of this Society was held at the Medical Library on Tuesday, January 7; Dr. Millington in the chair. Dr. Totherick exhibited a case of athetosis, and a curious case of congenital hypertrophy of the throat and of the second finger of the right hand. Mr. Vincent Jackson exhibited a patient in whom he had performed subcutaneous division of both tibiæ for excessive bow-legs, with excellent result. A paper was read by Mr. Vincent Jackson on "Gastrotomy in Intestinal Obstruction." He first related the history of a case in which he had lately operated, dividing a peritoneal band binding down the small intestine. The patient died twenty-four hours afterwards, and on post-mortem examination it was found that a considerable amount of fæcal matter had, since the operation, descended into the colon, showing the removal of the obstruction. Following the reading of the notes of this case, Mr. Jackson made some general remarks on the diagnosis of the causes of intestinal obstruction and on gastrotomy, and was followed by others. Numerous microscopical sections of cancer and sarcoma were exhibited during the evening.

HEALTH OF DUBLIN.

The extremely unfavourable nature of the returns of the Registrar-General for Ireland as to the rate of mortality in the Dublin Registration District, and particularly in the city of Dublin itself, during the past few weeks seems to have thoroughly aroused public opinion in the Irish capital. At the weekly meeting of the Board of Guardians of the North Dublin Union, on Wednesday, January 15, the following resolution was carried unanimously:—"That the Board call on the Local Government Board (for Ireland) to institute an official inquiry into the cause of the great death-rate in Dublin." On the next day the Board of Guardians of the South Dublin Union adopted this resolution:—"The Board desire to record their assent to the resolution passed yesterday at the North Dublin Union, requesting the Local Government Board to institute an official inquiry into the cause of the alleged excessive death-rate in Dublin at the present time; and in adopting this resolution the Board desire to guard themselves against its being supposed that they thereby intend to impute the slightest blame in the matter to any of the public authorities connected with the city, as an inquiry into the facts can do no possible injury, and may lead to very useful practical results." Some idea of the existing deplorable state of things in Dublin may be gathered from the fact that in the last quarter of 1878 the deaths registered within the municipal boundary numbered 2001, whereas the births were only 1736; in other words, the death-rate was 32·6 per 1000 of the population annually, while the birth-rate was but 21·3 per 1000. In the first two weeks of the present year the death-rates of the city were 53·6 and 47·1 per 1000 respectively. The mortality from diseases of the respiratory organs has become excessive; and zymotic affections have increased in frequency and fatality—notably small-pox. At the meeting of the Board of Guardians of the North Dublin Union, on January 15, Mr. O'Brien, Local Government Inspector, said that a couple of months ago it was expected that the small-pox epidemic was on the decline, and that the number of cases would become less and less. Unfortunately, however, their anticipations on the subject had not been realised, but the very opposite had come to pass. The epidemic continued to decline up to November 13; on that date the number of acute cases under treatment in hospital was 44, and the number of convalescent cases 44. However, on December 13, 1878, the number of acute cases was 91, and of convalescent cases 44—total, 135. On January 13 he was very sorry indeed to see that a still more serious state of things existed. The total number of cases on that date was 253—the number of acute cases was 153, of convalescent cases 100. Therefore it would appear that within two months the number of cases had more than trebled.

The following letter to the Editor appeared in the *Freeman's Journal* of Monday, the 20th inst.:—"Dublin Sanitary Association, Committee Rooms, Commercial-buildings, January 18.—Sir,—Referring to the statement in an article on the high death-rate in Dublin, which appeared in your issue of the 16th inst., to the effect that among the causes of the high death-rate was the fact that still-born children are registered among the deaths in Dublin we are directed by the Executive Committee of the Dublin Sanitary Association to forward to you the following copy of a letter on the subject from the Registrar-General:

—'General Register Office, Charlemont House, Dublin, January 17, 1879.—Sir,—In reply to your letter of the 16th inst., I have to state for the information of the Executive Committee of the Dublin Sanitary Association that stillborn children are not registered in Ireland either as births or deaths.—I am, sir, your obedient servant, W. M. Burke, Registrar-General.—The Secretary, Dublin Sanitary Association.'—We are, sir, your obedient servants, R. O'B. Furlong, F. W. Pim, J. W. Moore, M.D., and E. F. Beatty, Hon. Secs." *A propos* of the excessive death-rate in Dublin, an instructive correspondence between a hospital physician and the Public Health Committee of the Corporation, relative to difficulty, delay, and expense in procuring hospital cabs, appeared in the daily papers of that city about ten days ago. The publication of the correspondence has borne good fruit, for by advertisement the Public Health Committee announce that on and after the 22nd inst. two hospital cabs will be available, free of charge, in accordance with Section 140 of "The Public Health (Ireland) Act, 1878," which is compulsory on every sanitary authority, whether urban or rural. It is also the ultimate intention of the Public Health Committee to station conveyances for the sick at four points in the city.

THE TREATMENT OF CHRONIC METRITIS.

Dr. A. Martin of Berlin (*Berl. Klin. Wochenschrift*, No. 42, 1878) recommends the removal of the cervix uteri in those numerous cases of chronic metritis which resist all other medicinal and local treatment. By "chronic metritis" he understands a connective-tissue overgrowth of a part or the whole of the uterus and cervix, the result of flexions, abnormal menstruation, etc., and especially of incomplete involution of the puerperal organ. "What we must remember," he says, "in treating chronic metritis is that we have to do with changes of wide extent in the tissues of the whole uterus, while at the same time its mucous membrane has, as a rule, undergone alterations of a severe and not always benign character." The *rationale* of amputation of the cervix appears to be, that a fatty metamorphosis of the hypertrophied connective tissue, analogous to that which occurs in puerperal involution, is produced. At any rate, Dr. Martin has not only theory, but practice in his favour. He has performed the operation seventy-two times in cases of chronic metritis. Half of these cases had been long treated by the ordinary methods without benefit. All of them exhibited changes of the mucous membrane, and greater or less enlargement of the uterus both in length and thickness. In most of them the cervix (and especially the lips) was much hypertrophied. The symptoms were usually profuse secretion, irregular and abnormal menstruation, severe hypogastric and pelvic pains, digestive disturbances, and hysteria. About four or five centimetres of the cervix were removed in each case, and on recovery from the operation it was generally found that the uterus was reduced in length another one or two centimetres. At the same time, as a rule, the thickness of the uterine wall diminished, and eventually the consistence of the uterus became normal, while nearly all objective, and many subjective, symptoms disappeared. In three cases sterility of long standing was cured, it being remembered that nearly all the operations have been performed within the last two years. The details of the operation, and the method of arranging the sutures so as to cover the newly formed cervical lips with vaginal mucous membrane, must be read in the original. Here we can only say that the knife is used instead of the écraseur or galvanic cautery; and that the form of excision known in Germany as "Hegar's funnel-shaped excision" is the most appropriate. Difficulties in the operation are seldom met with, and with a uterus of ordinary mobility ten to fifteen minutes suffice for completing it. The main thing to keep in mind is, that the larger the amount of cervix excised, the greater the subsequent involution of connective tissue is likely to be.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A quarterly court was held on January 8, Edward Tegart, Esq., Vice-President, in the chair. A sum of £1267 was voted for distribution among fifty-eight widows, eleven orphans, and three orphans on the Copeland Fund. The expenses of the quarter were £70 18s. 3d. The Secretary stated that he had received applications from two widows and one orphan, but as the proper forms had not as yet been returned, the cases could not then be considered. One member was elected, and the deaths of four members reported.

LIVERPOOL MEDICAL INSTITUTION.

The annual meeting of the Liverpool Medical Institution was held on the 14th inst. The following are the officers and Council for the year 1879:—*President*: Dr. A. T. H. Waters. *Vice-Presidents*: Dr. Oxley, and Messrs. Manifold, Pusey, and Newton. *Treasurer*: Dr. Dickinson. *Hon. Secretary*: Dr. Caton. *Hon. Secretary for Ordinary Meetings*: Mr. E. A. Browne. *Hon. Librarian*: Dr. Macfie Campbell. *Members of Council*: Drs. M. Hill, L. Lewis, Robertson, Turnbull, Graham, Davidson, Howie, D. M. Williams, W. Williams, and Bernard, and Messrs. R. Harrison and Warburton. *Auditors*: Drs. W. Carter and Robertson.

UNIVERSITY OF DUBLIN: SCHOOL OF PHYSIC IN IRELAND.

The Rev. Professor Haughton, M.D., F.R.S., has resigned the post of Medical Registrar of the School of Physic, which he has filled during the past fifteen years with the greatest credit to himself, and the happiest results as regards the prosperity of the premier school of medicine in Ireland. We believe that Dr. Anthony Traill, one of the lay Fellows of Trinity College, Dublin, and himself a Doctor of Medicine of the University, will succeed Professor Haughton as Medical Registrar.

MR. GILBERT AND THE LONDON MEDICAL SCHOOLS.

We understand that a reply by Mr. R. Brudenell Carter to Mr. Gilbert's attack on the London medical students and medical schools, which appears in the current *Fortnightly Review*, will be published in the February number of the *Contemporary Review*. It is said that the Editor of the former journal refused insertion to Mr. Carter's reply, except upon conditions which seemed to him so unreasonable that he felt obliged to decline compliance.

CLINICAL SOCIETY.

At the meeting of the Clinical Society to be held this evening (Friday, January 24), an address will be delivered by Dr. Headlam Greenhow, the new President.

Metropolitan Asylums Board Returns.—During the year 1878 the weekly returns of the Metropolitan Asylums Board showed that 6064 completed cases of small-pox, scarlet fever, enteric fever, and typhus were recorded in the several hospitals for infectious diseases under the management of that Board; these included 4995 recoveries and 1069 deaths, the average mortality being equal to 17·6 per cent. of the completed cases. The number of completed cases of small-pox were 4762, among which the mortality was equal to 17·6 per cent., against 17·2 per cent. among the 7242 completed cases recorded in these hospitals during 1877. In the Highgate Small-pox Hospital the proportional mortality among the 422 completed cases recorded last year did not exceed 14·2 per cent.

THE TRICKERIES OF SPIRITUALISM.

A young American gentleman, Mr. W. Irving Bishop, has recently caused some sensation both in public and in narrower and more scientific circles in Edinburgh by his reproduction of many of the most puzzling manifestations of spiritualism, and his explanation of how they are performed by so-called mediums. At a private *séance* Mr. Bishop demonstrated some of the tricks of Annie Eva Fay, Daniel Home, Ira Devonport, "Katie King," and others, and we believe that the demonstrator intends at an early date to repeat his "manifestations" before the Fellows of the London Royal Society.

Mr. Bishop has had the support of many leading men in Edinburgh, such as Professors Tait, Turner, Crum-Brown, Calderwood, Blackie, and Rutherford, Dr. Arthur Mitchell, Dr. Batty Tuke, Archbishop Strain, Sir Daniel Macnee, etc., and he is warmly recommended by Dr. W. B. Carpenter. The most scientific of Mr. Bishop's explanations is that of the galvanometer test, to which, we believe, Annie Eva Fay was subjected by Professor Crookes and others, and about which much more is likely to be heard. The following description of the test appeared in the *Edinburgh Courant*:—

"The galvanometer test was suggested to Annie Eva Fay as one which would be absolute proof of the exercise of supernatural agencies if she were able, while submitted to it, to perform the acts previously performed by her, while fastened with bandages which she or others might possibly have tampered with. The idea of substituting the galvanometer for ordinary forms of fastening was a highly scientific one, but, in order that it may be understood, it is necessary that the instrument should be simply described. It consists of two main elements—a magnetic needle suspended by a delicate silk fibre, and an insulated coil of wire, in the centre of which this needle hangs. The extremities of this wire-coil may be prolonged to any distance; and, for purposes like the present, it terminates in two metallic handles. The purpose of the instrument is to demonstrate that if a current of electricity passes along this coil of wire the magnetic needle will be moved from the position which it occupied before the current was established, and that as soon as the current is discontinued the needle will regain its original position. The method in which such a current can be produced is by the intervention of one or more galvanic cells placed somewhere in the circuit between one of the handles and the galvanometer. While there is no conductor of electricity between the handles, no current can circulate in the coil, and therefore no movement of the needle can take place. But as soon as a person grasps the handles—one in each hand—the circuit is completed through the body of the person grasping, and the needle at once moves from its original position. If, again, the handles be dropped, the circuit is again broken, and the needle goes back to where it was. It will thus be seen that should anyone grasp the handles of the galvanometer and produce the consequent change in the position of the needle, it would be impossible to drop them without the needle indicating the fact by returning to its former position. Annie Eva Fay, in the presence of some distinguished spiritualists, underwent this test, and *though the position of the galvanometer needle indicated that she had never separated herself from the handles of the instrument*, she performed numerous feats which indicated that she must have had the free use of all her limbs. By what means was she able to undergo this crucial test? She herself has stated that she is unable to explain the matter; but Mr. Bishop, acting with eminent electricians, suggested how this apparently insurmountable difficulty can be overcome. Through supplementing the galvanometer by an electro-magnet, which may be placed, if powerful enough, at any distance from the galvanometer itself, the current may at any moment, by a simple movement of the performer or of a confederate, be withdrawn from the circuit of the galvanometer to that of the electro-magnet. Owing to a previous determination of the position of the electro-magnet, the result of this transference of the current is to maintain in its position the needle, which had been deflected by the performer through his having grasped the handles of the galvanometer. While the confederate continues to direct the current through the circle of the electro-magnet, the performer is free to manifest such trickery as he chooses. On his resuming his grasp of the handles the confederate again changes the current from the circuit of the electro-magnet to that of the galvanometer, and the performer resumes that influence over the needle which he had temporarily resigned to his confederate. For the purpose of demonstration, the needle of the galvanometer bears a small mirror reflecting a ray from a lime-light placed in front of the instrument, which ray being transmitted through a lens is brought to a focus on a graduated scale, and so indicates upon that scale the position and movements of the galvanometer needle."

FROM ABROAD.

Professor Verneuil on Arterial Denudation.

In a clinical lecture delivered at La Pitié (*Gaz. des Hop.*, November 14), Prof. Verneuil made the following observations:—

It often happens that a surgeon lays bare arteries of a considerable calibre during the course of an important operation such as the extirpation of a tumour, etc. In fact, arteries are often surrounded by these neoplasms; and you must have all seen wounds of this kind, in which the vessels, isolated and dissected with care, lie naked at the bottom of the wound. The prognosis of such denudations varies greatly. Some persons having seen the wounds close over the vessels without the slightest ill result, have come to the conclusion that there is no danger in dissecting out vessels during an operation; and this opinion seemed all the more rational as everyone is aware how long the vessels offer resistance to accidents, remaining intact in the midst of purulent collections, and not undergoing perforation even when abscesses form within their sheaths. But opposed to this optimist opinion there is to be placed another, far less reassuring. For surgeons also meet with formidable hæmorrhages in wounds in which arteries have been thus denuded, and that in cases in which they have not only respected the external coat of the vessel, but even the cellular tissue covering it. Which of us is there also who has not seen hæmorrhages supervening in the midst of purulent collections traversed by vessels? What is the cause of these so considerable differences in the consequences of the same fact? The clinical facts I am about to notice will, I think, clearly indicate the cause of both successes and reverses.

I was consulted by a robust man of large stature, and endowed with an uncommon amount of energy and activity. He had had for several years a tumour in the parotidean region, but, immersed in his affairs, he paid little attention to its progressive growth. But for a year it had increased considerably, the skin covering it also changing in colour; and he came to consult me in December, 1877. At that time the tumour extended from the middle part of the temporal region to about two centimetres below the lower edge of the jaw, reaching in front the supra-hyoidean region. It projected five or six centimetres. The skin was adherent to the tumour, and very vascular; and the tumour was moveable from before backwards. Nothing could be felt of it on passing the finger into the pharynx. It was quite painless, and there was neither paralysis of the facial, obstruction in the cerebral circulation, vertigo, nor congestion, indicative of arterial compression. While recognising the seriousness of the prognosis, I felt disposed to remove the tumour; and having consulted Prof. Richet, he diagnosticated sottened enchondroma, and also advised an operation, although somewhat doubtful as to the issue. The patient being very desirous that it should be performed, it was executed on January 10. But while considering the propriety of the operation, I had been rendered somewhat uneasy by an unpleasant circumstance that came to light. Although the patient had all the appearances of robust health, he mentioned to me, without attaching the slightest importance to it, and almost as a joke, that he had recently consulted a "urine doctor," who had declared him to be diabetic. The doctor prescribed for his patient, especially employing the iodide of potassium, and in five or six weeks afterwards declared that sugar no longer appeared in the urine. His rapid cure inspired me with some distrust, and I insisted upon an analysis of the urine being made. This proved completely

negative, and confirmed me in the opinion which I had given. The operation was a laborious one, but I need only refer to the principal details. The tumour was circumscribed by superficial incisions made by the thermo-cautery, and the deeper incisions, or rather enucleations, were executed by the fingers. The whole of the carotidean vessels were laid bare, their pulsations being visible at the bottom of the wound, the vessels being, however, covered by a moderately thick layer of conjunctive tissue. The jugular vein was also exposed to a large extent. No vessel of any importance was injured, ligatures only being required for the temporal and for a branch of the internal maxillary. The whole of the parotid was removed, as well as a large portion of the sterno-cleido-mastoideus. The amount of blood lost was pretty considerable, but the patient bore the loss perfectly well, and forty-eight hours afterwards seemed only as if he had undergone a slight operation. He complained only of dysphagia and great salivation, as is always the case in operations upon this region.

The next day, on his urine being examined, it was found to contain sugar. It is a fact of frequent occurrence for an operation to arouse glycosuria in intermittent diabetes. I was therefore not surprised, but my former apprehensions returned, and were corroborated by another pretty significant phenomenon. During the operation, the primary hæmorrhage which follows the section of the tissues was much more prolonged than it is observed to be in healthy subjects. This sanguineous issue continued for some hours, while there was none of the venous hæmorrhage so frequently seen after the patients have come to and made some efforts. On the second day the urine was turbid and reddish; there was no longer any sugar in it, but the urates existed in a colossal proportion, uratic diabetes having become substituted for glycosic. On the fifth day erysipelas appeared, which, springing from the edges of the wound, spread all over the head. This had disappeared by the ninth day. From the fifth day daily attacks of hæmorrhage occurred, and the patient, losing his early calmness, became very restless. These were temporarily arrested by the application of pieces of agaric, until the fourteenth day, when the bleeding became so serious that all the agaric was removed. As the last piece of this was taken off, a jet of blood sprang from a small perforation in the carotid. The bleeding was arrested by the application of hæmostatic forceps; but after some hours the patient succumbed. During all the progress of the case the wound was never of its proper rose-colour; it was red, and differently coloured at different points, some being of a vermilion red, and others of an aponeurotic whiteness. This is always a bad sign. About the eighth day a wound ought to be uniformly rose-coloured over its whole extent.

In other cases I have been more fortunate. In order to remove a tumour of the arm-pit, the size of the head of a full-time infant, I denuded the axillary artery to the extent of three inches; on removing the parotid I have even denuded the carotid; and in extirpating a tumour of the neck I have exposed all the carotidean branches without any ill-effect. Last year, while removing a fibro-plastic tumour of the thigh, I dissected out the femoral vessels to a length of fifteen centimetres. All these cases terminated successfully. I had a fatal termination after dissecting a lymphadenoma from Scarpa's triangle, when a rupture of the femoral occurred. At the autopsy the artery was found to have been rendered friable by the infiltration of the disease. I may also mention a remarkable case published by M. Nepveu in which the carotid was denuded during the extirpation of an enormous tumour of the neck. Fever supervened, and a formidable hæmorrhage occurred from an eschar which had formed in the carotid. In this case the affection had also become generalised. In this point of view, also, we must remember that children the subjects of old abcesses of the neck have often succumbed to sudden hæmorrhages which have supervened at periods of complication, as scarlet fever, etc.

In the three patients who succumbed, hæmorrhage supervened when the economy was in an enfeebled state, when the general condition was a bad one, and fever with septicæmia had set in. From these facts I believe that I may conclude that sphacelus and perforation of arteries do not take place except under unfavourable conditions; and this is how I explain the mechanism: In wounds practised on healthy persons there remains in the conjunctive tissue which covers the external coat of the artery a small layer of cellular nuclei, which by proliferation form a granular surface and granulations that give sufficient protection to the arterial walls. But in debilitated organisms this granular layer does not suffice for reparation, and becomes sphacelated, thereby exposing the arterial wall, which becomes thus dissected out. The conjunctive tissue of the wall may even form granulations, and constitute a new granular layer; but this conjunctive tissue, in the course of proliferation, is substituted for the resisting tissue of the arterial wall. The same thing takes place here as occurs in wounds of bones. At a given moment an insensible exfoliation takes place—a loss of substance which is only filled up by granulations. The arterial wall then becomes enfeebled; and if we add to this unfavourable condition that, in a wound which goes on badly, considerable atrophy rapidly supervenes, we can easily understand the production of sphacelus of the wall of the artery.

It is, then, in my opinion, under the influence of general accidents that these arterial ulcerations are produced. It is to the constitutional condition that we should attribute them; and when a morbid diathesis exists the surgeon should expect unfavourable events.

REVIEWS.

Diphtheria, its Nature and Treatment, Varieties, and Local Expressions. By Morell Mackenzie, M.D. Lond., Senior Physician to the Hospital for Diseases of the Throat and Chest; Consulting Physician to the North-Eastern Hospital for Children; and Lecturer on Diseases of the Throat at the London Hospital Medical College. London: J. and A. Churchill. 1879. Pp. 104.

In this small volume, which is one of a series of essays on throat diseases, based on the Jacksonian Prize Essay for 1863, Dr. Morell Mackenzie gives a very good, clear, and useful account of our present knowledge and treatment of Diphtheria. The work is divided into eleven chapters, which successively treat of the Definition and History of Diphtheria, of its Etiology, Symptoms, Paralyses, Diagnosis, Pathology, Prognosis, and Treatment; of Laryngo-Tracheal Diphtheria, of Nasal, and of Secondary Diphtheria. It will be at once perceived from the headings of the chapters that Dr. Mackenzie holds that the difference between croup, so-called, and diphtheria is one of local manifestation, not of essence. He advocated the doctrine of the identity of the two maladies in his Jacksonian Prize Essay, and he still ably maintains the same view.

In the short first chapter of the work now before us he does not pretend, of course, to give more than a sketch of the history of diphtheria, but it is a very good sketch, showing, as does the work throughout, a large amount of research; and he refers the reader to the various works in which the subject will be found to have been exhaustively treated. In his attempt, however, to identify the disease with the "Askara" of the Talmud, and with a malady described by an Indian physician who was a contemporary, or nearly so, of Pythagorus, it must be allowed that Dr. Mackenzie displays an amount of enthusiasm and ingenuity in pedigree-making worthy of the Herald's Office.

In treating of the Etiology of Diphtheria, Dr. Mackenzie states that "the *exciting* cause is a specific contagion, and those cases which appear to originate *de novo* probably always arise from the virus—often long dormant and forgotten—of previous cases." He considers that "the whole tendency of sanitary science is opposed to the doctrine of the spontaneous origin of specific diseases," but he admits that cases do occur, and has himself "frequently" met with such cases, in which careful inquiries have failed to discover the smallest evidence of infection. Of this apparently spontaneous origin of the disease he gives a remarkable instance, observed last year by Dr. Semon at a small health-resort, called "Bad Fusch," in the Tyrol. "The place, consisting of only a few houses, is situated at an elevation of from 3000 to 4000 feet above the sea, and is celebrated for its fresh air and pure water. In one of these houses a little girl, five years of age, who had left Vienna five weeks previously, was suddenly attacked with diphtheria, which was subsequently followed by paralysis. The visitors consisted almost entirely of tourists, ascending the high mountains in the neighbourhood. Although other children had been

playing with the little girl up to the day on which she was attacked, no other case of the kind occurred." Dr. Mackenzie rightly adds, "it need scarcely be said that the outbreak of the disease in this case may, however, also be explained in accordance with the theory of contagion." No proof is attempted to be given that the child had not been, previous to her arrival, in any place in which diphtheria existed; and the case may have been one of prolonged incubation.

Dr. Mackenzie does not accept the doctrine, so strongly advocated by Oertel and some other writers, that "a minute fungus is the essential contagium" of the disease; and states (we think rightly) that the observations of those writers "are not sufficiently conclusive to warrant us in considering that the essence of the disease has yet been discovered. . . . The experiments of Oertel, Letzerich, and others, if uncontradicted, would only show that micrococci are an invariable concomitant of diphtheria; that they are the sole or even the main agent in its causation cannot yet be considered proved." The parasitic theory, first put forth in our own pages by the late Professor Laycock,(a) is maintained with great force by Oertel in his article on Diphtheria in the first volume of Ziemssen's "Cyclopædia of Medicine," and we observe that in his report of the outbreak of diphtheria in the Grand-Ducal family of Hesse-Darmstadt, he still says "the diphtheritic contagium, the parasitic nature of which has become a conviction of mine." On the other hand, Senator, M. Duchamp, and others declare that the special fungi said to belong to diphtheria are found in other diseases; and in our own country Dr. Beale has controverted the importance attributed to the presence of fungi in diphtheritic deposits, and has shown that vegetable germs are present in every part of the body, and in all stages of health.(b)

Dr. Mackenzie, like Sir William Jenner and other writers on the subject, dwells much on the great importance of family constitution in predisposing to the disease; and he mentions some very remarkable examples, in illustration of this, which came under his own notice. "In one case," he says, "a poor woman had three children of her own, and took care of two others in no way related to herself; her own children were attacked by the disease, and one of them died. The other two children—not her own,—who were constantly in the same room with the little patients, never suffered from the disease. In another case four families occupied a house near Woodford, in Essex. In all of these were several children. Two families were related, the mothers being sisters. All the children who were related to each other had diphtheria severely, whilst the children of the two other families escaped entirely. During the progress of the disease no attempt at isolation was made, the healthy children frequently entering the rooms of the patients."

But our author agrees with other writers in considering *age* as the most obvious predisposing cause. From Dr. Thursfield's analysis of nearly 70,000 fatal cases contained in the returns of the Registrar-General, it appears that in every 1000 fatal cases the age at death was—from one to five years, 450; and from five to ten years, 260; and in the Florentine epidemic of 1871-73, according to Dr. Borgiotti's statistics, out of 1546 cases, in only fifteen were the patients over thirty years of age.

With regard to Prognosis, he states that "the most important *general* consideration is the character and mortality of the prevailing epidemic"; and that, as to the *special* symptoms, "high temperature, extreme prostration, hæmorrhages, or urgent vomiting at the commencement of an attack, are signs indicative of extensive general infection, and must therefore be looked upon as of very serious prognostic import." The prognosis is also, of course, serious in proportion to the thickness and extent of the exudation, and to the rapidity with which it extends. Like Sir William Jenner, Oertel, and others, he also points out that extreme frequency or extreme slowness of pulse, muffling of the heart's sounds, and intermittency of its beats, are signs of very grave and alarming import.

The chapter on Treatment is especially valuable, and we are glad to find that Dr. Mackenzie insists on the paramount importance of due nourishment, and of the free use of alcoholic stimulants. "There are few cases of diphtheria," he says, "in which systematic feeding does not constitute the most important part of medical treatment." The administration of alcohol is almost always advisable. Now and then a case occurs in which it is never required at all; but as a broad rule it is called for in small, and sometimes in large, doses from the very commencement of the attack, and "very often it supplies us with the best chance of saving the patient's life, and it must then be pushed with a boldness rarely needed in other forms of disease." Of the *recuperative* agents recommended he holds that iron, in the form of the tincture of the perchloride, is undoubtedly the most useful. The value of this remedy was discovered and made known to the profession by Dr. Healop of Birmingham in 1858,(c) and it has held its place ever since as a drug having great influence for good, both generally and locally. Quinine is generally most useful, perhaps, after the more serious symptoms have abated; but it is sometimes required early in the attack, especially when headache with high temperature, vomiting, and the symptoms of septic poisoning are present. Dr. Mackenzie has not been able to observe any certain benefit, while he has seen evil, from the use of various specific remedies; though he thinks that *perles* of copaiba are markedly useful in catarrhal cases. Of *general antiseptics*, besides iron, he has found the sulpho-carbolates and salicylic acid useful in the *secondary* poisoning of diphtheria, but not in the *primary* septicæmia; and he has not much faith, apparently, in the value of chlorate of potash. As regards local treatment, he discards altogether every kind of *caustic* application, and rarely uses any *astringent* except iron. Of *solvents* applied to the false membranes, he finds acetic acid the most reliable. He applies it freely with a brush, or by means of a piece of lint fastened on a wooden rod; and he has never met with any inconvenient results from its employment. He has also found lime water, or liquor potassæ (one part to four parts of water), useful when the false membrane is not very thick. *Antiseptics*, such as carbolic acid, permanganate of potash, chlorate of potash, etc., are very useful in the form of gargle or of spray. Hydrate of chloral has also been found very useful (twenty grains to one drachm). It was first recommended by Dr. Accetella, and in this country has been employed with great success by Mr. Hughes Hemming of Kimbolton, and Dr. C. Hemming of Bishop's Waltham. Mr. Hemming employs the syrup of the strength of twenty-five grains of chloral to one drachm, and directs it to be applied every hour or two. Dr. Mackenzie also thinks that some benefit may be obtained from *varnishing* the false membranes, and so excluding the air; and he prefers for this purpose an ethereal solution of tolu—one in five. When the false membranes have attained any marked thickness, the inhalation of steam is very useful; and hot, moist applications externally also seem beneficial, and agreeable to the patient. Oertel very strongly advocates the employment of repeated inhalations of steam, at a temperature of from 112° to 122°, for the purpose of hastening the formation of pus, and the separation and expulsion of the membranes; and he finds that lime-water is the best of all solvents of fibrinous exudations, however excited. On the other hand, Professor Bartels appears to have abandoned all forms of spray and inhalation in favour of simply sponging with a warm 1 per cent. solution of common salt. Dr. Mackenzie's opinions and directions about treatment are clear, precise, and unhesitating—a decided virtue in a book intended for the student and the busy practitioner.

The ninth chapter of the work is on "Laryngo-Tracheal Diphtheria, formerly called Croup." Dr. Mackenzie is, as we have already said, a very earnest and decided advocate of the identity of the two diseases, and he makes out a good case for this view. We cannot here go into the arguments that may be brought forward on either side of the question. It will, no doubt, be very fully discussed at the Royal Medical and Chirurgical Society before long, when the report of the Croup and Diphtheria Committee, which has not yet been published, comes on for discussion. There can be no doubt that very many cases of laryngo-tracheal diphtheria and of catarrhal laryngitis have been recorded as croup; but we are not ready as yet to admit that every case of laryngitis, in which false membrane forms, except those caused by irritants, is diphtheria. If it is granted, however, that membranous

(a) *Medical Times and Gazette*, vol. i. 1855, page 547 *et seq.* It must be considered very doubtful whether the case, in connexion with which Professor Laycock propounded this theory, was really one of diphtheria; but the theory was a great forecast of the germ theory.

(b) "Disease Germs." London, 1872, page 65 *et seq.*

(c) *Medical Times and Gazette*, vol. i. 1858, page 152 *et seq.*

laryngitis must be diphtheritic, there is nothing left to dispute about. We think that Dr. Mackenzie is not quite correct in saying that Sir William Jenner, in his lecture published in 1875, "gave in his adhesion" to the doctrine of the identity of croup and diphtheria. We rather think that he only said that, whereas he formerly thought the weight of evidence was in favour of the diseases being distinct, he then had come to think it inclined the other way; and that he still spoke very cautiously. In the first stage of the disease, in children, Dr. Mackenzie admits that it is sometimes very difficult to distinguish catarrhal laryngitis of a severe form from croup or laryngeal diphtheria, except by means of the laryngoscope. Sir W. Jenner, we think, says that an accurate diagnosis is almost impossible; and certainly very little help can be hoped for from laryngoscopy. Dr. Mackenzie points out that "the laryngoscope cannot often be successfully used in young children," and we suspect that, seeing how rarely his exceptional dexterity in the employment of that instrument is available, he might have spoken still more strongly. He rightly insists on the very careful examination of all expectorated matters, in order that the first signs of the presence of false membrane may be recognised. He also dwells on the great importance of not delaying the performance of tracheotomy "at the close of the second stage of croup, when inhalations and emetics have failed." But all the statistics he gives in proof of the value of tracheotomy are from French sources,—he does not give his own experience of the operation; and, on the whole, this chapter of his book is somewhat disappointing, compared with the earlier parts of it. It is as positive, but it strikes us as less clear and convincing. He dwells much, and rightly, on the necessity of the most constant and minute care and attention after the operation; a matter which, it will be remembered, was ably insisted upon by Mr. R. W. Parker, in his paper read before the Royal Medical and Chirurgical Society in December last year. The space at our command will not, however, allow us to notice this chapter more fully; and we will close our rather lengthy review of the work by saying that it well deserves the notice of the members of the profession, and will, we think, become very popular with them.

Clinical Manual for the Study of Medical Cases. Edited by James Finlayson, M.D., Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary, etc. London: Smith, Elder, and Co. Pp. 584.

I.

The work before us is in its nature composite. It consists of several parts. The first is by Professor Gairdner, to whom Dr. Finlayson was for some time assistant; this deals with the Physiognomy of Disease. The second is by Dr. Finlayson himself; the description given of it is this: On Case-taking, Family History, etc.; on Symptoms of Disease in the various Systems (except in so far as specified below). Next follows, among those below, Dr. Alexander Robertson, Physician and Superintendent of the Towns Hospital and the City Parochial Asylum, Glasgow, who writes on Insanity. Dr. William Stephenson, Professor of Midwifery in the University of Aberdeen, and who calls himself "Regius Professor"—a title most men would be inclined to drop for one which implies more substantial endowments than regius professorships often imply, —writes "On Disorders of the Female Organs." Mr. Samson Gemmell, M.B., who is assistant to Professor Gairdner, writes on the Sphygmograph and on the Physical Examination of the Chest and Abdomen. Dr. Joseph Coats, who is best known to us south of the Tweed as a careful and painstaking pathologist, deals with the modes of examining the fauces, larynx, and nose, and gives instruction as to the method of performing post-mortem examinations.

In judging of a book of this kind, it must be considered from more than one point of view, specially this: Is it a work intended for the student or for the past-masters of our profession—those at least who have obtained a degree or qualification? To the former class this one can hardly be devoted, since, as is said in the preface, "many portions of this book are adapted more for reference than for reading in a continuous manner." Such a statement relieves us from certain difficulties in the way of criticism. Books which are specially intended for students are within certain limits—that is to say, so long as they do not teach what is absolutely wrong,—hardly subject to the rules of criticism which should be applied to those of higher aim. Books on diagnosis have somehow or another become favourites among a large class of those who belong to our profession. In one way this is good; in another way it is bad. It is good that men should seek to make a correct diagnosis in any case rather than a mere haphazard guess; but it is at the same time unhappy that they should not have made themselves thoroughly acquainted during their student's career with the principles whereon all true diagnosis rests. All else depends on practice—in other words, experience. In all London hospitals now the education of the student is carefully looked after in this respect, and it is his own fault if he does not acquire a knowledge superior to that commonly offered him in handy guides to his profession. The book before us is conceived in a different strain, and merits treatment of a totally different character from that usually meted out to the class of books above referred to.

Professor Gairdner deserves not only the first place among the group of authors with whose work we are now dealing, but his remarks are in themselves so characteristic that they will well repay perusal, though perhaps they are hardly in their proper place in the volume before us. We wish we could quote the beginning of his short essay. In effect it is this: Avoid conventional phrases, especially those which seem to imply knowledge whilst containing none. A rash generalisation should not be the object of the physician, but a careful noting of well-ascertained facts, whence by a strictly logical process a conclusion more or less accurate may be deduced. Thus he is extremely severe on the tendency some men have to make a statement that a patient has a peculiar morbid tendency or bias in his constitution. This, says Professor Gairdner, is no fact, only an induction, or perhaps deduction, more or less imperfect. So, too, and still more, of *temperaments*. He is not quite so hard, however, on the question of *diathesis*, for says he, "The proof of diathesis is essentially the proof of disease, but it may well be disease in its earliest manifestations and least notable forms." In other words, he would look upon the indications of any particular diathesis as the remains of some pre-existing disease, apt to be followed by a disease of a similar kind, though, it may be, with different manifestations. If we mistake not, this view is somewhat different from that entertained by certain followers of the French school, both at home and abroad.

Thus he leads on to the discussion of the physiognomy of disease, and the first point he alludes to is the value of the *weight* and *size* of the body as a means of diagnosis. For our own part, we should be the last to undervalue any of the few exact numerical data available to the practising physician; but, to our mind, the indications thus afforded, though in their way very useful for diagnosis, have their especial value as a test of the patient's progress towards recovery or the reverse. Then follows an interesting discussion on the conditions of body ordinarily described as "stout" and "spare." But here we must abandon the direct pursuit of our author, who deals next with *anæmia*, and what he says is still current in medical language, its converse *plethora*. His account of that most classic of all physiognomical descriptions of disease, the *facies Hippocratica*, is supplemented by a reference to the other details of the moribund condition given by Aretæus. With most other writers we should have taken this as a piece of pedantry, even though our author quotes not the original, but Dr. Adams' translation; but we well know that Dr. Gairdner is far beyond this: he is not only an accomplished physician, but a thorough scholar in the old sense of the word.

There have been few writings on certain parts of this subject—that is, the physiognomical characteristic of certain diseases—of greater importance than those published years ago in the columns of this paper by Sir William Jenner. That great master of quick and accurate observation has there dealt with the outward signs of more than one disease, but especially with rickets (*Medical Times and Gazette*, vol. i. 1860) and with fever (in a volume now out of print); and these are here duly referred to; but, after the careful reading of other chapters, we come to the same conclusion as before. To a well-skilled physician Dr. Gairdner's remarks are calculated to be of much service, especially, we would say, by calling forth in the mind of the reader an occasional protest that things are not always so. To our mind, this is sometimes the very best kind of book. It makes

men think even when they cannot agree with, and mentally dissent from; it makes them fall back on their experience to furnish the grounds for this dissent. But we are quite sure Professor Gairdner would be the last to frown upon such a use as we suggest of his essay. His motto is always, Search—inquire—draw your own conclusions; his only object is that the foundation shall be good, the inferences logically drawn. Still, we must confess, looking to the great utility of such an essay as his, we should have been glad to see it separately and more decidedly addressed to the class to whom it promises to be most useful.

GENERAL CORRESPONDENCE.

LECTURES FOR MEDICAL PRACTITIONERS.

LETTER FROM DR. NORMAN CHEVERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having read Dr. William Dale's letter on Lectures for Medical Practitioners in your issue of the 18th inst., it is perhaps as well that I should mention that, in November last, several medical men residing in the neighbourhood of this College suggested the advisability of instituting short courses of lectures on special subjects—such as Diseases of the Eye, Ear, and Skin, Diseases of Women, etc., to be attended by members of the profession; and I have every hope that in a short time an arrangement of this kind will come into operation. I am, &c.,

NORMAN CHEVERS, M.D.

London Hospital Medical College, January 21.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 14.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

DISEASE OF THE MASTOID BONE.

MR. W. B. DALBY chose three cases to illustrate the prominent features of the diseases to which the mastoid bone was liable. In the first case a purely local irritation, without any predisposition in the patient towards cancer, had been productive of epithelioma, which, starting from the tympanic cavity, eroded and destroyed in its progress that portion of the temporal bone which included the mastoid process, the external auditory canal, the tympanum, and a large part of the petrous portion. In this as in all other recorded cases of malignant disease of the mastoid bone, the lining membrane of the tympanic cavity had been a discharging surface for a considerable period. In the existence of this discharging surface may be found (according to the writer) the irritation which preceded the new growth. In the second case, the middle ear having been the seat of inflammation for four weeks, the mastoid cells were opened for the relief of symptoms which were considered to endanger life. In connexion with this case the following questions were discussed:—1. Under what circumstances should the mastoid cells be perforated? 2. When should the case be allowed to proceed till the bone has so far become softened as to permit of the opening of the (so-called) abscess by the knife? The author considered that this operation was urgently called for when the symptoms pointed to the presence of pus within the mastoid cells; that under certain conditions external evidences, such as superficial tenderness, redness, swelling, and considerable œdema, should not be waited for; that the fact of the bone being apparently healthy should not contraindicate this proceeding, which he believed had frequently been the means of preventing cerebral abscess, meningitis, or pyæmia. In the third case the whole of the temporal bone of a child was destroyed by ulceration. The subject of the first case died; the subjects of the second and third cases lived. Specimens from Nos. 1 and 3 were exhibited.

OBSERVATIONS ON THE EFFECT OF DIET, REST, EXERCISE, ETC., IN CHRONIC NEPHRITIS.

DRS. EDWARD I. SPARKS and J. MITCHELL BRUCE contributed a paper on the above subject. The authors first give a brief description of the case on which their experiments were made—namely, a case of chronic phthisis and albuminuria with severe intercurrent exacerbations. They next showed what the relations of quantity of urine, albumen, and urea were to one another in this patient, on ordinary mixed diet, and while taking ordinary exercise. The results were then given of experiments with absolute milk diet, non-nitrogenous diet, excess of eggs, and nitrogenous diet with water, respectively, as well as of experiments on the effects of rest and of exercise, and of the administration of digitalis,—upon the amount of albumen and of urea, and on the specific gravity and total amount of urine. The conclusions at which the authors had arrived from the results of the experiments in the case were briefly as follows:—First, the amount of albumen was reduced by absolute milk diet, and by absolute non-nitrogenous diet. Secondly, the effect of the milk diet was not merely apparent, and due to the albumen being more than ordinarily diluted, for ordinary diet with an equal amount of water did not produce the same result. Thirdly, eggs in excess did not appreciably reduce the amount of albumen. Fourthly, the effect of a non-nitrogenous diet was decided; the effect was not immediately produced, and it persisted some time after nitrogen was re-ingested. Fifthly, absolute rest remarkably reduced the amount of albumen. And, sixthly, increase of arterial pressure by digitalis possibly increased the excretion of albumen. From these results the authors drew certain deductions with regard to the treatment of albuminuria, especially by rest.

The PRESIDENT said the thanks of the Society were due to the authors for their elaborate and laborious paper.

Dr. QUAIN cordially agreed with Dr. West that the Society was indebted to the authors for their investigation into the condition of the urine in this case of serious disease of the kidney, associated with serious pulmonary disease. The authors had not undertaken to say upon what conditions—whether of blood, bloodvessels, or nerves—the varying changes they found depended; but they had stated facts which were of great value as leading the way to future research, and as pointing out circumstances under which diminution in the amount of albumen excreted may be looked for. Variations in the quantity of albumen depending on varying circumstances should always be borne in mind. These variations explained the occurrence of discrepancies which occasionally occurred between two independent observers upon the same case of albuminuria. Examined at one time, the quantity of albumen might be very small; at another, large. These, then, were cases of "intermittent albuminuria," of which Dr. Quain had met with examples. One in particular was the case of a gentleman, whose urine Dr. Bruce had examined for him some years ago; it was marked by a large quantity of albumen after breakfast, the quantity gradually diminishing throughout the day, and falling to *nil* at night. The patient went to Australia, and on his return said that he had got rid of his albuminuria, but probably the night-urine only had been examined, for the urine passed after breakfast was still found to be highly albuminous. Yet in other respects this patient was in good health. Such a case showed the importance of testing specimens of urine passed at different periods of the day, and also showed that albuminuria may occur from altered general physiological conditions, apart from renal disease. Albuminuria and Bright's disease were not convertible terms, and excess of albumen in many cases should be compared rather with instances of excess in urea, in phosphates, or in urates. In other words, albuminuria, like the conditions just mentioned, had in many cases wider significance than as dependent on local renal changes; it was an indication often of some general constitutional condition which required to be investigated. Dr. Quain then referred to another feature of the case which had been the subject of these experiments—the association of phthisis with albuminuria; and he cited similar cases from his own experience. In one case there had been chronic phthisis of fifteen years' duration, with albuminuria lasting for five years, the patient during all this time doing useful professional work. He alluded to another case—that of a gentleman a late Fellow of the Society—a surgeon-major in the Guards, who had gone on doing duty for many years, labouring all the while under phthisis and albuminuria. Such cases seemed to show that albuminuria was, in some instances at least, rather a safeguard against the rapid development of tubercle. He could recall several cases of the subjects of chronic phthisis with albuminuria yet able to lead useful lives.

Dr. ANDREW asked as to the nature of the renal affection in

the case read. The presence of chronic phthisis was suggestive of this being lardaceous disease, and if so, the effects of diminution or increase of the blood-pressure upon the kidney would differ from what might be expected in granular disease. He did not think that a diet which included cabbage, potatoes, and rice could strictly be styled "non-nitrogenous." A purely non-nitrogenous diet was a powerful therapeutic agent, as he had shown some years ago in treating a series of cases of acute rheumatism solely upon arrowroot. Such cases did better than any others before the use of salicylate of soda had come into vogue. He asked further whether the general condition of the patient was affected by the measures taken; for it was possible to have a form of diet which, while considerably diminishing the amount of albumen and of urea, might yet seriously affect the patient generally.

The PRESIDENT thought Dr. Andrew's queries to be pertinent; for great as were the interest and value of the paper, he would hesitate to draw any definite conclusions from experiments ranging over so short a period of time, and that in a case, not of simple chronic nephritis, but of phthisis *plus* chronic nephritis. Nor was it an object in treatment simply to reduce the quantity of albumen, but to influence the condition of the patient in general; and he would ask under which of the modes of treatment did the patient most improve? He could confirm what had been said as to the great value of rest for children suffering from scarlatinal nephritis; after being kept in bed for four or five weeks without any albumen appearing, when allowed to get up and run about, albumen reappeared in a day or two. This was not simply due to the uniform temperature under which they were when in bed, but as a matter of rest also. He regarded the paper as one of those valuable contributions which serve as steps by means of which we may rise to more thorough and complete knowledge, and as such he thought the authors also would regard it. He thanked Dr. Quain for drawing special attention to facts which should prevent us in any particular case from too hastily doubting the observations or conclusions of another who had seen the case at a different time.

Dr. BRUCE, after thanking the Fellows for the favourable and lenient way in which the paper had been dealt with, disclaimed all but a very small share in the observations. All the analyses were carried out by Dr. Sparks, and under serious difficulties of bad health, imperfect apparatus, etc. The subject of the affection being himself a medical man, it was obvious that the experiments could not be conducted so fully as in the case of a hospital patient. But the normal condition having first been ascertained as fully as possible during seven consecutive days and nights, the experiments showed such a deviation from the mean, that more reliance might be placed upon the conclusions than might seem at first sight justifiable. The nature of the renal affection was obscure. The patient had chronic phthisis; there was a moderate amount of œdema; casts had never been found in the urine; the liver was slightly, the spleen not at all, enlarged. There was, therefore, a certain amount of probability in the view that the renal disease was lardaceous. Further, ever since a very early age he had had chronic cardiac disease, evidenced by a basic murmur. As to the effect of the different diets upon the patient, the milk diet could not be tolerated, and his health failed on the non-nitrogenous diet; whilst the precise effect of diet modified according to the indications of these results was uncertain, as the patient left, shortly after commencing it, for the South of France, where he always passed the winter. On the whole, he found it absolutely necessary to take a certain amount of meat daily. The diet which had been styled "non-nitrogenous" was not absolutely so, but in it the amount of nitrogen had been reduced as far as was practically possible. Dr. Bruce added that they wished to regard these observations simply as experiments, and did not desire to draw from them any settled conclusions; but, as Dr. West had said, to look upon them rather as steps to our knowledge of the treatment of albuminuria by diet and by rest.

DEATH OF M. MATHIEU. M. Mathieu, sen., the ingenious manufacturer of surgical instruments, so well known and appreciated by the whole medical world, has just died in the sixty-second year of his age. Mathieu, like his old master Charrière, raised himself, by his industry and intelligence, to a most honourable position, the services which he has rendered to surgical art having long since gained for him the consideration of the medical body.

NEW INVENTIONS AND IMPROVEMENTS.

ALLEN'S INVALID'S KETTLE.

MESSRS. ALLEN AND SON, of Marylebone-lane, so well and favourably known to the profession, have introduced to public notice a new article, which they call "The Invalid's Kettle." It is, we are sure, an article which will speedily recommend itself for its general usefulness. It is not intended to take the place of their regular bronchitis or croup kettles, now so well known and recognised by the profession, which are provided with internal chambers for receiving any medicinal substances that may be required to be used in serious cases; yet we are sure there are many to whom the new kettle will prove of great service. This kettle, divested of its tube, is to all intents and purposes, and can be used as, a strong and well-made ordinary kettle, ready to supply hot water for any domestic purpose, or for making poultices, etc., in the sick-

room. By a simple construction of the spout, a tube provided with each kettle can be simply slipped into the spout, and the article is at once converted into a vaporising or bronchitis kettle, ready at any time for any emergency that may arise for the use of such an article. To invalids confined to their room during many days, if not weeks, of the winter months; or to those who, from bronchial weakness or some slight bronchial affection, find the dry air of a well-warmed room irritating, this article will be found invaluable, the warm vapour acting almost like a charm in relieving the difficulty of breathing. It is the only kettle which has yet been introduced that combines the advantages of the ordinary household kettle with a vaporising kettle. It is strong (the specimen we received might have been better finished) and well made, holds three quarts, is fit for the roughest use, and its price is only 7s. 6d.

M. JULES GUÉRIN.—This medical veteran has just received a rebuff at the Académie de Médecine which has exacted an indignant remonstrance on the part of the Paris medical press. Whoever is cognisant of the proceedings of the Academy during the last thirty years must be aware that no one of its members has taken a more indefatigable part in these than Guérin; and, although he has been in the habit of developing his views on the various subjects that have come before that learned body, at greater length than would be deemed suitable with ourselves, yet he has in that only done what many others of his countrymen are in the habit of doing without having the same justification in the importance of their communications, and the skill and eloquence with which these are developed; for there can be no question that M. Guérin has originated and contributed to many improvements in the art of healing. He has never received any of the honours of the Academy; but this year it was resolved by the Bureau to propose him as a member of the Council. Such a proposition is almost invariably sanctioned by the Academy, but on this occasion, at its annual meeting, it substituted the name of M. Magne, who was accordingly elected. In a note addressed to the *Union Médicale* (January 16) M. Jules Guérin states that he had never sought the post which was spontaneously offered to him. He adds that a week before this occurrence he had offered to present to the Academy, for its new building now erecting, his anatomical museum, with 400 drawings and paintings of its contents, the whole having cost him more than 120,000 fr. It was probably on account of this offer that M. Béclard, the Secretary, had proposed his name to the Council as a candidate, and which that body unanimously accepted.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 16th inst., and when eligible will be admitted to the pass examination, viz. :—

Baines, Harald Athelstane, student of Charing-cross Hospital.
Bolton, Alfred, of Guy's Hospital.
Carr, Alfred A., of University College Hospital.
Clapp, William M. McL., of University College Hospital.
Colman, George M. H., of St. Thomas's Hospital.
Duce, Charles T., of the Birmingham School.
Durell, Robert E., of King's College Hospital.
Gripper, Walter, of St. Bartholomew's Hospital.
Harrison, Joseph, of the Leeds School.
Head, Philip A. D., of the London Hospital.
Jessop, Walter H. H., of St. Bartholomew's Hospital.
Locker, Edward H., of University College Hospital.
Medcalf, George, of University College Hospital.
Payne, John W., of the London Hospital.
Raymond, Henry A. J., of St. Bartholomew's Hospital.
Roberts, Frank E., of St. Mary's Hospital.
Smith, James E., of the Charing-cross Hospital.
Veness, Arthur W., of the Westminster Hospital.
Ward, Lawrence P., of the London Hospital.
White, Edwin F., of St. Thomas's Hospital.

Of the 149 candidates examined, 36 having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, and five more were referred for six months, in pursuance of the following resolution, passed at the last meeting of the Council, viz. :—"A candidate for the diploma of Member of the College referred upon his primary or Anatomical and Physiological examination, who shall not obtain more than half of the total minimum number of marks, shall not be re-admitted to examination until *six months* shall have elapsed, and shall then be required to produce, in conformity with the standing rule, a certificate of the performance of dissections during not less than three months since the date of his reference."

The following gentlemen having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst., viz.:—

Bennington, Robert C., L.S.A., Peckham, student of St. Thomas's Hospital.
Bridgeford, Walter A. Saunders, Sheffield, of the Sheffield School.
Childs, Christopher, L.R.C.P. Lond., Uppingham, of St. George's Hospital.
Davies, David S., L.S.A., Bristol, of St. Thomas's Hospital.
Deakin, James, L.S.A., Sale, Cheshire, of the Manchester School.
Hicks, Frederick J., M.A. Oxon., Magdalen College, Oxford, of University College Hospital.
Hughes, T. M., L.S.A., Bucknall, Horncastle, of Charing-cross Hospital.
Jones, Fredk. F., L.S.A., Llanfyllin, Montgomeryshire, of Guy's Hospital.
Leftwich, Charles H., Tufnell-park, N., of St. Bartholomew's Hospital.
Lucas, Chas., L.S.A., Burwell, Cambridgeshire, of the Middlesex Hospital.
May, Thomas H., M.D. Queen's Univ. Ire., Dover-street, W., of the Westminster Hospital.
Bigden, Brian, Canterbury, of University College Hospital.
Russell, George H., Helston, Cornwall, of Guy's Hospital.
Shaw, William, M.B. Edin., Broseley, Salop, of St. Bartholomew's Hospital.

The following gentlemen passed on the 21st inst., viz. :—

Alban, Evan, L.S.A., Aberayron, student of St. Bartholomew's Hospital.
Batty, William E. L., L.S.A., Birkenhead, of the Liverpool School.
Cheshire, Arthur R., Birmingham, of the Birmingham School.
Collington, William W., L.R.C.P. Edin., Merrick-square, of Guy's Hospital.
Colt, Thomas A., Torquay, of University College Hospital.
Cox, Llewellyn F., Bangor, North Wales, of King's College Hospital.
Dismoor, Henry, L.S.A., Gravesend, of Guy's Hospital.
Gwynn, C. H., M.B. Edin., Whitchurch, Salop, of the Edinburgh School.
Harrison, Arthur, L.R.C.P. Edin., Sheffield, of the Sheffield School.
Jones, Hugh P., Rhos, near Ruabon, of the Dublin School.
Martin, Theodore, L.S.A., Evesham, Worcestershire, of the Birmingham School.
Morley, Edward J., L.R.C.S. Lond., Blackburn, of Guy's Hospital.
Riley, James W., Birmingham, of the Birmingham School.
Robinson, Frederick, Ilkley, Yorks, of the Leeds School.
Saunde s, Wm., L.S.A., Stockton-on-Tees, of University College Hospital.
Smith, William H., Redditch, of the Birmingham School.
Taylor, William M., M.A. and M.B. Edin., Newcastle-on-Tyne, of the Newcastle School.
Thomas, William F., L.S.A., Madras, of University College Hospital.
Ward, G. J., L.R.C.P. Edin., Maida-vale, of St. Bartholomew's Hospital.
Welch, Samuel A., Kinver, Worcestershire, of the Birmingham School.
Young, William H. F., Brighton, of St. George's Hospital.

The following gentlemen passed on the 22nd inst., viz. :—

Addison, William H., Natal, student of King's College Hospital.
Bourns, Newcome W., Oxted, of St. Bartholomew's Hospital.
Butler, G. Henry, Hobart Town, of the Westminster Hospital.
Chillingworth, Andrew, Maldon, of St. Bartholomew's Hospital.
Cotton, Charles, L.R.C.P. Edin., Foulis-terrace, of St. George's Hospital.
Da Silva, Pascoal M., L.S.A., Bombay, of the Bombay School.
Francis, William, Eastbourne, of University College Hospital.
Hartley, John, Stocking Pelham, Buntingford, of the Middlesex Hospital.
Hoale, Henry, L.S.A., Gunnersbury, of Charing-cross Hospital.
Hoolbeche, Arthur O., Sutton Coldfield, of the Birmingham School.
Landon, Edward, L.R.C.P. Edin., Oxford, of St. Thomas's Hospital.
Marsh, William A., Hindley, of the Manchester School.
Roper, Edwin, Croydon, of Guy's Hospital.
Saundor, William, L.S.A., Stockton-on-Tees, of University College Hospital.
Seager, Herbert W., St. George's-square, of St. Mary's Hospital.
Smith, Ernest F., Devonport, of St. George's Hospital.
Thomas H. Bickerton, Liverpool, of the London Hospital.
Watkins, Sydney C., Norton Folgate, of the London Hospital.
Woollett, Sidney W., L.S.A., Chigwell, of King's College Hospital.

The following were the questions on Surgical Anatomy, and the Principles and Practice of Surgery, submitted to the candidates on the 17th inst., when they were required to answer at least four (including one of the first two) out of the six questions, viz. :—1. Enumerate, in their relative position, the viscera and bloodvessels contained in the upper zone of the abdomen—*i.e.*, between the diaphragm and a horizontal line drawn across the cartilages of the ninth ribs. Describe any surgical operations which may be performed in this region. 2. Mention in their order the structures divided in performing "Syme's amputation." Contrast the symptoms and the condition of the limb which result from sudden plugging of its main artery with those which result from plugging of its main vein. State the treatment in each case. 4. Describe the consequences, immediate and remote, of a puncture of the brachial artery during venesection, and the appropriate treatment. 5. What consequences are likely to ensue from the impaction of a fragment of iron —say from an anvil—in the cornea? How would you treat such a case? 6. What are the signs and symptoms of a loose cartilage in the knee-joint? Explain the origin of these bodies, and the treatment you would adopt.—The following were the questions on the Principles and Practice of Medicine submitted to these candidates on the 18th inst. who had not already passed a recognised examination in medicine, viz. :—1. How are lesions of the various cardiac orifices detected and diagnosed? Where, in the different cases, are abnormal sounds heard? and what are the pathological conditions that induce them? 2. Enumerate the various modes by which lead may be introduced into the system, and what symptoms it gives rise to. What is the prophylactic and medicinal treatment? 3. Enumerate the various metallic and vegetable substances contained in the Pharmacopœia that are employed as evacuants of the alimentary canal. Describe their *modus operandi*, the particular indications for their employment; and write a prescription in full of a diuretic mixture for an adult.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 16 :—

Corder, Ransome Sheppard, St. Margaret's, Ipswich.
Hague. James Thompson, Kingston House, Southampton.
Shaw, John, Richmond-terrace, Clapham-road.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Tennant, Wm. Drysdale, St. Thomas's Hospital.
Vores, Arthur, St. Thomas's Hospital.

BIRTHS.

BAKER.—On January 19, at 26, Wimpole-street, Cavendish-square, the wife of W. Morrant Baker, F.R.C.S. Eng., of a daughter.

FLEMING.—On January 18, at 10, Albany-place, Glasgow, the wife of William James Fleming, M.B., of a son.

LITTLE.—On January 21, at The Elms, Victoria-park, Manchester, the wife of David Little, M.D., of a son.

MURRAY.—On January 17, at Scarborough, the wife of Ivor Murray, M.D., F.R.S.E., F.R.C.S.E., late H.M.'s Colonial Surgeon, Hong-Kong, of a daughter.

YOUNG.—On January 14, at Brooke, near Liverpool, the wife of T. Frederick Young, L.R.Q.C.P., M.R.C.S. Eng., of a son.

MARRIAGES.

GALLOWAY—FOGARTY.—On January 14, at Brixton, Arthur Wilton Galloway, M.R.C.S., to Louisa Warde, daughter of the late George Taylor Fogarty, Surgeon 70th Regiment B.N.I.

RANKIN—MILES.—On January 15, at Londonderry, Derry, Wm. J. Rankin, M.D., Staff-Surgeon R.N., second son of Robert Rankin, of Allaskin, St. Johnston, to Rosa, eldest daughter of Thomas Miles, of Londonderry.

WEBSTER—HOWARD.—On January 18, at Brixton, George Edward Webster, M.R.C.S. Eng., of Rosebank, Upper Norwood, to Elizabeth Sarah Howard, of 47, Gresham-road, Brixton.

DEATHS.

GURNEY, HENRY CECIL, M.D., F.R.C.P.E., M.R.C.P.L., at Nice, on January 13, aged 59.

MAXWELL, EVELINE MURIEL, infant daughter of Theodore Maxwell, M.D., at Woolwich-common, on January 19, aged 7 months.

ROBINS, WILLIAM, L.S.A., on January 14, at Bexley-heath, aged 65.

WILDBORE, DANIEL PEACOCK, F.R.C.S., at Belsaln-road, Walthamstow, on January 15, in his 67th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified and registered. Further information may be obtained from Dr. Aitken, Medical Superintendent, to whom testimonials must be forwarded not later than February 8.

NORTH-WEST HOSPITAL FOR DISEASES OF WOMEN AND CHILDREN, KENTISH TOWN-ROAD, N.W.—Honorary Physician. Candidates must be graduates of a University, and registered. Applications, with testimonials, to be sent in on or before February 1.

RICHMOND INFIRMARY.—House-Surgeon. Candidates must possess a medical and surgical qualification and be registered under the Medical Act. Applications, with copies of (not more than six) testimonials, to the Secretary, the Infirmary, Richmond, Surrey, on or before February 16, from whom any further information may be obtained.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. Candidates must have a qualification in medicine and surgery from one or other of the Colleges of England, Scotland, or Ireland. Applications to Mr. J. B. Shepherd, Hon. Sec., the Dispensary, Stourbridge, on or before February 8.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Applications, with testimonials, to the Hon. Secretary, Tiverton.

WARRINGTON INFIRMARY AND DISPENSARY.—Resident Surgeon-Apothecary. Candidates must produce qualifications similar to those required from candidates for medical appointments under the Local Government Board, together with testimonials relating to professional education and moral character. Applications, with testimonials, stating if married or single, family, etc., to Joseph Davies, Hon. Secretary.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Candidates must be surgically qualified, registered, and unmarried. Applications, stating age, etc., with testimonials, to the Hon. Sec., P. D. Bennett, Esq., 13, Church-road, Edgbaston, Birmingham, on on before February 5.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Downham Union.—Mr. C. T. Ennals has resigned the Second District; area 6188; population 1124; salary £25 per annum.

Plomesgate Union.—Mr. K. O'Callaghan has resigned the Aldeburgh District; area 7425; population 3024; salary £40 per annum.

APPOINTMENTS.

East Grinstead Union.—Charles E. Collins, L.R.C.P. Lond., M.R.C.S. Eng., to the First District. John Magrath, M.D. Queen's Univ. Ire, M.R.C.S. Eng., L.S.A., to the Sixth District.

Petworth Union.—Mr. Robert E. Wilmot, M.R.C.S. Eng., L.R.C.P. Lond., to the Third District.

Redruth Union.—Thomas Sanctuary, L.R.C.P., L.R.C.S., L.S.A., to the Western District.

Wirral Union.—Samuel Warren, B.M. and C.M. Trin. Coll. Dub., to the Upton District.

Worcester Union.—Samuel W. Coombs, L.R.C.S. Edin., L.R.C.P. Edin., L.S.A. Lond., to the First District.

AMPUTATION at the right hip-joint was performed on the 22nd inst. at the Infirmary of the Royal Naval School for Boys, the patient being a lad upon whom excision of the hip-joint had been practised some months previously. The hæmorrhage was controlled by Mr. R. Davy, after the mothod devised by him, and now well-known, and only three ounces of blood were lost. The operation was performed by Dr. Armstrong, in the presence of Mr. Johnson-Smith, Mr. Pink, and some other gentlemen.

INHALATION OF OXYGEN IN ALBUMINURIA. — Dr. Dujardin-Beaumetz inquired of his colleagues of the Société de Thérapeutique (*Gas. Hebd.*, January 17) as to the results of their experience in treating albuminuria by means of oxygen. He related a case which had reached its last stage, all means having been tried in vain, when the respiration of oxygen was had recourse to. The albumen disappeared completely during the first twenty-four hours of its employment, and although this disappearance will probably prove only temporary, twelve days have passed without any return. Dr. Constantin Paul replied that he had published two analogous cases, in which, under the use of oxygen, the albumen disappeared, but in two months it returned as bad as ever. Similar cases have since been published, and the most that can be hoped for from this means is a comparatively long remission. M. Greletty observed that at Vichy it has long been the practice to administer oxygen both for diabetes and albuminuria, and as a general rule a diminution in the amount of albumen or sugar is observed; but the disappearance is not found to be total, and in all cases is only temporary.

DEATH FROM CHLOROFORM.—This unfortunate occurrence took place last Friday in Prof. Dumreicher's Clinic in a person to whom chloroform was administered preparatory to an operation for hydrocele. He suddenly expired after the inhalation of from fifteen to twenty grammes of pure chloroform. Every means of recovery, including tracheotomy, were tried in vain. At the autopsy nothing remarkable with respect to the organs of respiration and circulation was found.—*Allg. Wien. Med. Zeit.*, December 24.

CREMATION.—The first official cremation—that of the corpse of an engineer named Stier—has lately taken place at Gotha. The *Gazette Médicale de Paris* says the ceremony, which excited a great sensation in Germany, was organised by the Protestant clergy, according to the customary proceedings at an ordinary interment. The hearse was followed by the relatives of the deceased, by Baron Seebach, a State official, the Municipal Council, representatives of the Press, and a crowd of strangers from London, Amsterdam, Berlin, and St. Petersburg. At the church, after the chants sung by a choir of children, the Dean of the Clergy of Gotha pronounced a funeral oration, in which he pointed out that he attended in order to give a public and solemn assent to the principles of the system of cremation, and to declare that he could not see in it anything contrary to the letter or the spirit of the Gospel, there being nothing in either the Old or New Testament to forbid it.

THE EDINBURGH ROYAL INFIRMARY.—The annual general meeting of the contributors to the Edinburgh Royal Infirmary was held on the 6th inst. in Queen-street Hall, Lord Provost Boyd in the chair. It was stated that the new buildings, to be erected at a cost of about £120,000, are rapidly approaching completion, and may be expected to be finished in the course of the ensuing summer. The funds of the institution would appear to be in a most satisfactory condition, since the different items show a return of stock, £54,000; other funds, £76,000; Convalescent House account, £661; special fund for new nursing department, £667; and value of the old Infirmary estimated at £30,000. The ordinary expenditure of the Infirmary for the past year, ending October 1, 1878, has exceeded that of the previous year by £1594, but this is fully accounted for by the large increase in the number of patients treated during the period, the average number of occupied beds having been 460. The managers regret that the ordinary revenue falls far short of the ordinary expenditure, but they look forward to a large increase in the annual subscriptions to enable them to maintain the institution in all its usefulness, without, as heretofore, being obliged to trench largely on the legacies so urgently needed to enable them to complete the new Infirmary. In the course of their report the managers acknowledged the debt of gratitude under which the institution is placed to the medical and surgical officers, who have laboured so indefatigably in its behalf.

ABSENCE OF VAGINA AND UTERUS.—Prof. Polaillon related the following case (*Union Méd.*, November 12) at the Société de Médecine of Paris:—A woman, about twenty-three years of age, presented all the usual feminine attributes with regard to the breasts, pelvis, voice, etc., and her external genital organs were of natural conformation. But, on examination, the hymen was found to be imperforate and incapable of depression. The perineum was broad and resisting, and quite normal. On examining by the rectum, neither any menstrual collection nor any internal organs of generation could be perceived. On combining with this examination the introduction of a catheter into the bladder, this was so easily felt and followed as to prove that nothing like a vagina existed, and no trace of a uterus or ovaries could be perceived. Signs of puberty commenced in the eleventh year, and this proceeded in its ordinary development, except that the menses never appeared. Nor were there any of the symptoms of congestion produced when the menstrual flux is retained. But the disposition of the patient is entirely feminine. She has voluptuous sensations, and it is under the desire of being married that she has applied for surgical interference. Under these circumstances, it is certain that the ovaries must exist, although placed beyond the reach of careful exploration. In a case of absence of the uterus occurring in the practice of Dr. Gallard, the ovaries were found deeply lodged in the cavity of the pelvis. Of course, in this case of Prof. Polaillon's, all interference was pronounced impossible.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. John Forster.—Yours of June and November received with thanks Please refer to our issue of July 13, 1878.

Primary Education.—Our contemporary *Nature* gives, from a recent number of *La Nature*, the following interesting statistics of education in Germany:—Of the 86,177 conscripts enrolled in 1877 in the German army, 78,622 had received primary instruction in the German tongue, 5415 in other tongues, and 2140, or 2·483 per cent., could neither read nor write. The district of Posen furnished the largest contingent of this last category, 11·20 per cent.; then follow Prussia, Silesia, Pomerania, Westphalia, Hanover, Brandenburg, Schleswig-Holstein, the Rhine Provinces, Hesse-Nassau, and lastly Hohenzollern, of which all the conscripts had received primary instruction.

A Sanitary Precaution for the Port of London.—The Medical Officer of Health for the Port of London, in consequence of the reported spread of the plague in Russia, has made arrangements for examining all arrivals in the Thames from that country, with the view to avert any possible importation of the disease by water. The Customs authorities will co-operate with the Medical Officer in these precautionary measures.

Liquor Drinking in Belgium.—The report of Sir Henry Barron, just issued, respecting the duties levied in Belgium on wine, beer, and spirits, deserves notice at this time of "alcoholic" discussion. Sir Henry says it would be interesting, but quite impossible, to ascertain the exact amount of spirits consumed per head in different countries. It is certain that Belgium would take a high place in the list. Unfortunately, owing to the Belgian mode of assessment, the exact amount of spirits produced can never be ascertained. The quantity consumed in 1875 is officially recorded as 401,935 hectolitres, which, to a population of 5,836,185 persons, represents an average consumption of 1656 gallons per head. This figure fell to 1607 gallons for 1876, but it still greatly exceeds that recorded for the United Kingdom, which in 1876 was 1·28 gallons per head. The fact is accounted for thus: that some of the spirits paying duty in Belgium is used in manufactures, whereas in England that utilised for similar purposes is exempted from duty, and not included in the average consumption.

Teetotaler.—The decision of the Exeter magistrates was, that a licensed victualler calling in policemen to eject a man who is subsequently taken into custody and sent to prison for being drunk and disorderly, must pay the costs of the conviction.

Query, a Nuisance?—The gipsies' camp in Lordship-lane, Dulwich, comprises about twelve families. They are sheltered in wooden huts and vans, but the greater portion are huddled under tents upon the ground. During the late severe frost, snow, and hard weather they remained crouched together, and their mode of living seemed a perfect mystery. but when the severity of the weather moderated, they emerged from their canvas tents, and were seen gathered in groups as if emancipated from confinement. The land (about two acres) occupied by them is their own freehold property, but the ground is a perfect quagmire. Horses, goats, and dogs are kept, and there is a complete colony of gipsies. The camp is an intolerable nuisance to the inhabitants of the neighbourhood, both in a sanitary and social point of view, but the parochial authorities are set at defiance. The parish officials do not allege this gipsies' camp as dangerous to health in the locality, and to procure its riddance, though earnestly desired, seems a perplexing difficulty.

A Successful Experiment.—An experiment, which commends itself to public notice, to provide improved dwellings for the very poor, has been made with success by Colonel Deakin at Launceston. Two blocks of cottages have been erected in the Launceston-road. Each cottage contains four rooms—two on the ground floor and two above,—with lean-to at rear, and a small garden, and lets at £4 per year, which yields 5 per cent. on the outlay.

Refusing to appoint a Public Analyst.—The Dartmouth Town Council having declined to appoint a public analyst, as required by the Local Government Board, on the ground that the law on the question of adulteration was vexatious, and that it was undesirable to burden the borough with additional expenses for officers' salaries, the Local Government Board have had further communication with the Corporation. The Board points out that it is not necessary the analyst for the borough should be paid by means of a salary. It might be arranged that his remuneration should consist of the fees paid for analyses made by him, and that the Town Council might, subject to the provisions contained in Section 12 of the Sale of Food and Drugs Act, 1875, stipulate with him what his fees should be. The Board did not think that any sufficient cause had been shown why an analyst should not be appointed for the borough, and requested the matter to be again considered by the Town Council with a view to making the appointment. The Council reconsidered the subject at their meeting last week. After considerable discussion, a proposal to appoint an analyst fell to the ground in consequence of the withdrawal of a member of the Council, which deprived the meeting of a quorum.

Alleged Infringement of the Vaccination Act by a Surgeon.—The vaccination officer reported to the Leeds Board of Guardians, a few days since, that a surgeon had withheld a certificate of a child's vaccination from the month of August last until the 14th inst., thereby causing legal proceedings to be taken against the parent for not transmitting to the vaccination officer the certificate of successful vaccination within seven days from the time of the child being inspected by the surgeon. The withholding of the certificate by a medical man was a penal offence, and subjected him to a penalty. The Board ordered that the solicitor be instructed to prosecute the surgeon.

Noxious Vapours.—At the quarterly meeting of the North-Western Association of Medical Officers of Health, held at Manchester last week, the report of the Select Committee on Noxious Vapours was presented, and a discussion upon it ensued, resulting in a memorial on the subject to the President of the Local Government Board. The memorial set forth the necessity of dealing by more stringent and effective legislation with all works producing noxious vapours, and urged upon Government the amendment and extension of the Alkali Acts for the further mitigation of the injury to health and other evils resulting from noxious vapours. It also submitted various propositions indicating the nature and extent of the amendments required in the Alkali Acts which appeared most needful and desirable.

Anti-Cremationist, Sussex.—Yes; a small building and furnace are being erected at Woking, and cremation is about to be practically demonstrated; and unless the Home Secretary should be advised to interfere, bodies will there be burned instead of buried. The residents are greatly perturbed at the idea, but the *Engineer* states that there will be nothing offensive or repulsive; the building and furnace are not near any dwelling-house; they will be hidden from view by a circle of trees; and only by sight will their proximity be detected.

Treatment of Cases of Drunkenness at Edinburgh.—The Edinburgh Town Council recently considered the Police Bill as finally adjusted by the Lord Provost's Committee. The only clause on which any question of interest was raised was that defining the duties of the medical officer of health and surgeon of police, which evoked an inquiry whether the Council would, under that clause, have the right to ask their medical officer to instruct the police in simple medical operations, so as to enable them, for example, to give proper treatment to persons found drunk and incapable in the streets. A councillor remarked that he thought it would be a very dangerous precedent to turn policemen into half-doctors. There was an old saying that a little learning was a dangerous thing; and he did not know any profession to which this was more applicable than the medical. The Town Clerk, in reply to the question, said that the medical officer should "perform all duties which have been, or may be, attached to the offices of medical officer of health or surgeon of police, by public or local statute, or by order or regulation of the magistrates and Council."

Longevity of Quakers.—It appears from the annual list of the members of the Society of Friends, that the number of deaths among that body during the past year in Great Britain and Ireland was 281. There are about 17,000 members; the mortality is consequently much below that of the population generally, and again shows the longevity which prevails amongst the members of the Society. The infant mortality was very small, only 15 deaths of children under one year; between one and five years, 18 occurred; between five and twenty years, 11; between twenty and thirty years, 19; from thirty to forty years, 15; and 11 only between forty and fifty years. Above fifty years old the numbers rise, the deaths in the first decade being 24; between sixty and seventy, 46; while from seventy to eighty (the most fatal period) the deaths were 65. Above eighty and below ninety the number was 53—a very high rate out of a total of 281; while from ninety to a hundred there were 5 deaths. Of the total 281, 147 were males and 134 females.

Health of Liverpool.—Dr. Taylor, Medical Officer of Health for Liverpool, in his report to the Health Committee states that the deaths in the borough during the week ending 11th inst. were 334, or 171 in the parish and 163 in the out-townships, being a decrease of 14 on the corrected averages of the last ten years, and 1 more than in the corresponding week of last year, making the total rate of mortality equal to 32·3 per 1000 of the estimated population. Zymotic diseases occasioned 48 deaths, being a decrease of 30 on the average. Of the total deaths, 109 were of children below five years of age, and of these 46 were infants below one year old. From lung diseases there had been 150 deaths, or 59 above the average of 1878, and equal to 44·9 per cent. of the total deaths. There had been 66 deaths of persons above sixty years of age, being 25 above the average of 1878, and equal to 19·7 per cent. of the total deaths.

A Desideratum.—A proposal for adopting, in the parish of Islington, the Act of Parliament authorising the establishment of public baths and washhouses, has led to the appointment of a special committee of the Islington Vestry to consider the subject. The proposal has been so favourably received that it is expected Islington will, before long, possess such a useful establishment.

A New Magistrate.—Dr. J. J. D. Burns, Medical Officer of the Convict Prison, Rochester, has been appointed a magistrate for that city.

Surreptitious Cremation of an Infant's Body.—A young girl of seventeen years of age is in custody at Haverfordwest, charged with concealing the birth of her illegitimate child. The prisoner's grandmother confessed to a police-constable that the girl burnt the body of her newly-born babe, and that she (the grandmother) recalcined its bones. The accused is under remand.

COMMUNICATIONS have been received from—

Dr. G. Ernest Herman, London; Dr. J. Mitchell Bruce, London; Mr. Jonathan Hutchinson, London; Mr. John Chatto, London; Mr. W. E. Poole, London; Dr. J. Hughlings-Jackson, London; Dr. J. Pearson Irvine, London; Mr. B. R. Wheatley, London; Mr. T. M. Grone, London; Mr. R. W. Parker, London; Mr. D. Colquhoun, London; Mr. C. M. Golding, Folkestone; Dr. Sparks, Mentone; Dr. Rigler, Berlin; The Registrar of Apothecaries' Hall, London; Dr. J. W. Hunt, Wolverhampton; The Honorary Secretary of the Harveian Society; Messrs. J. Allen and Sons, London; Mr. J. B. Blackett, London; Dr. Carter, Liverpool; Mr. Howard Marsh, London; Mr. John Forster, London; The Registrar-General, Edinburgh; Dr. J. W. Moore, Dublin; Dr. Norman Chevers, London; Dr. Robert Lawson, Edinburgh; The Secretary of the Royal Institution, London; The Surgical Registrar of Westminster Hospital; Mr. R. Brudenell Carter, London.

BOOKS AND PAMPHLETS RECEIVED—

Henry Day, M.D., Ozone in Relation to Health and Disease—Jonathan Hutchinson, F.R.C.S., Illustrations of Clinical Surgery, fasciculus xiii.—Dr. H. Hager, Manuale Pharmaceuticum; Pharmacopœæ Recentiores, Anglica, Gallica, Germanicæ, Helvetica, Russicæ, inter se Collatæ—W. J. Russell, M.B., Domestic Medicine and Hygiene, second edition—Edward Weakes, M.D. Lond., On Deafness, Giddiness, and Noises in the Head—J. V. Vesey Fitzgerald, B.A., Notes of Statutes and Legal Decisions affecting the Public Health, 1875; from 1875 to 1878, inclusive—B. H. Paul, Ph.D., E. M. Holmes, F.L.S., and F. Passmore, Report on the Exhibits connected with Materia Medica, Pharmacy, Chemical Industry, etc.: Universal International Exhibition, Paris, 1878—William Newman, M.D., F.R.C.S. Eng., History of the Stamford, Rutland, and General Infirmary—M. G. Echeverria, M.D., On Nocturnal Epilepsy and its Relations to Somnambulism; De la Trépanation dans l'Epilepsie par Traumatismes du Crane—H. Strickland Constable, Fashions of the Day in Medicine and Science—Catherine M. Buckton, Food and Home Cookery—Transactions of the American Otological Society, vol. ii., part 2.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—El Siglo Médico—Révue Médicale Française et Etrangère—Boys' Own Paper—Erasl—Students' Journal and Hospital Gazette—Révue des Sciences Médicales—Morningside Mirror—Révue d'Hygiène et de Police Sanitaire—Colonies and India—Dublin Journal of Medical Science—Westminster Review.

APPOINTMENTS FOR THE WEEK.

January 25. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. H. G. Seeley, "On Reptilian Life."

27. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. R. J. Lee will give some remarks "On the Recent Improvements in the Steam Draft Inhaler." Dr. Sansom, "On Heart Disease in Children."

28. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Gowers, "A Study of the so-called Tendon-Reflex Phenomena."

29. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

30. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. J. H. Gordon, "On Electric Induction."

31. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Mr. H. H. Statham, "On the Logic of Architectural Design."

VITAL STATISTICS OF LONDON.

Week ending Saturday, Jan. 18, 1879.

BIRTHS.

Births of Boys, 1338; Girls, 1310; Total, 2648.
Average of 10 corresponding years 1869-78, 2467·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	983	964	1947
Average of the ten years 1869-78	806·2	800·2	1606·4
Average corrected to increased population ...	...	...	1721
Deaths of people aged 80 and upwards ...	...	...	101

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	3	4	7	2	12	...	4	...	3
North ...	751729	...	3	11	1	14	1	...	...	2
Central ...	334369	...	...	5	...	6	...	3	...	2
East	639111	...	2	7	2	18	...	3	3	1
South	967692	9	9	14	2	17	...	10	3	5
Total	3254260	12	18	44	7	67	1	20	6	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·839 in.
Mean temperature	35·4°
Highest point of thermometer	46·4°
Lowest point of thermometer	19·4°
Mean dew-point temperature	33·4°
General direction of wind	Variable.
Whole amount of rain in the week	0·85 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 18, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Jan. 18.	Deaths Registered during the week ending Jan. 18.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2658	1947	46·4	19·4	35·4	1·89	0·85	2·16
Brighton ...	105608	44·9	43	40	44·9	20·8	36·3	2·39	1·12	2·84
Portsmouth ...	131821	29·4	88	55	...	...	...	...	...	...
Norwich	85222	11·4	52	58	43·0	19·0	34·0	1·11	0·31	0·79
Plymouth	74293	53·3	48	38	50·5	17·5	39·2	4·00	1·98	5·03
Bristol	209947	47·2	172	118	49·0	11·5	35·3	1·84	1·23	3·12
Wolverhampton ...	75100	22·1	49	32	45·4	15·8	31·7	−0·17	1·44	3·66
Birmingham ...	388884	46·3	310	216	...	...	...	0·84	0·86	2·18
Leicester	125822	39·3	109	63	45·8	19·2	33·5	0·56	0·58	1·47
Nottingham ...	169396	17·0	122	83	45·3	15·2	33·0	0·56	0·58	1·47
Liverpool	538338	103·3	461	376	47·9	25·5	36·2	2·33	1·35	3·43
Manchester ...	361819	84·3	286	242	...	...	...	...	...	...
Salford	177849	34·4	153	118	...	...	...	...	...	...
Oldham	111318	23·9	77	60	...	...	...	...	...	...
Bradford	191046	26·5	122	81	47·0	23·2	34·8	1·58	0·98	2·49
Leeds	311860	14·5	255	145	47·0	26·0	36·3	2·39	0·85	2·16
Sheffield	297138	15·1	243	144	46·0	23·5	35·3	1·84	0·92	2·34
Hull	146347	40·3	109	57	48·0	25·0	34·6	1·45	1·26	3·20
Sunderland ...	114575	41·4	84	44	45·0	30·0	37·2	2·89	0·66	1·68
Newcastle-on-Tyne	146948	27·4	99	65	...	...	...	...	...	...
Edinburgh	226075	53·9	167	100	46·2	16·5	34·8	1·45	1·30	3·30
Glasgow	578158	95·8	367	300	48·0	21·7	38·1	2·28	1·47	3·73
Dublin	314686	31·3	172	291	54·2	26·3	41·0	5·00	0·40	1·02
Total of 23 Towns in United Kingdom	8502896	38·6	6247	4670	54·2	11·5	35·6	2·01	1·03	2·62

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·84 in. The lowest reading was 29·50 in. on Wednesday morning, and the highest 30·08 in. at noon on Friday.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

PRESIDENT'S ADDRESS

TO THE

CLINICAL SOCIETY OF LONDON.

BY

EDWARD HEADLAM GREENHOW, M.D., F.R.S.

GENTLEMEN,—On taking the President's chair for the first time, I beg to thank you most heartily for the great honour you have conferred upon me—an honour which is much enhanced, in my estimation, by the circumstance that it is bestowed by my professional brethren; and that it is held in connexion with a Society founded for the special purpose of advancing that branch of medical science, upon the study of which my life-long thoughts and energies have been centred. When, indeed, I was nominated by the Council for the office of President, I felt much diffidence as to the propriety of accepting their flattering proposal, for I thought it probable that some other member might, perhaps, occupy the chair more advantageously for the objects of the Society. Looking at the ability of your former Presidents, and the admirable manner in which each of them has performed his duty, I feel that I have a difficult task before me. But I shall use my best efforts to promote the objects and prosperity of the Society; and I trust that I may be able, at the close of my period of office, to transmit it to my successor with prestige undiminished and dignity unimpaired. In this effort I well know that I shall be ably and cheerfully assisted by the executive officers of the Society, and I also feel assured that I may count upon your individual and collective support.

It has been customary for the President to address some preliminary words to the Society at the first meeting after his election. I feel that on the subject of clinical study I can add nothing to the wise and thoughtful words you have already heard from my predecessors, neither can I pretend to the eloquence which some of them displayed. Therefore, during the short time for which I shall occupy your attention to-day, I propose to take a humbler, though I trust not an altogether unprofitable, theme.

The Clinical Society has now entered on its twelfth session, and it appears to me a suitable occasion for inquiring into the nature and character of the work which it has done, and of ascertaining how far it has fulfilled the intentions with which it was founded. From such a retrospect of its past labours we may perhaps form some forecast of the direction which its future efforts should take. That the Society has, in some senses, been eminently prosperous, you are well aware. The report of the Council, read at the annual meeting a fortnight ago, was in this respect quite satisfactory: it showed how largely our numbers have grown; while the increasing interest manifested in our meetings indicates that the work done is generally approved. It is not, therefore, from any doubt or suspicion of failure that I propose this inquiry; but rather in the hope that we shall thereby be encouraged to make still greater efforts in future.

The Society was founded professedly for the cultivation and promotion of practical medicine and surgery, by the collection of cases of interest, especially of such as bear upon unsettled questions in pathology and therapeutics. The field of its prospective labours was therefore a very wide one—for I suppose the time will never arrive, when there will cease to remain such questions as yet unresolved,—but it could not well have been more restricted; for a field that did not comprise the whole extent of clinical research would have scarcely justified the formation of such a society. Our rules lay down more definitely the mode in which the main purpose of the Society is to be carried out. Communications of two classes are to be received. Those of the first class are to consist of written reports of cases already complete—written, in order that they may be accurate and definite; drawn up after a certain plan, in order that they may comprise every important particular. Communications of the second class are to consist of cases still under observation; and this class of papers was mainly designed to afford an opportunity for appointing a small committee of members to assist in drawing up a full record of the case. It is further provided that every communication shall conclude with explanatory remarks by the author; he being, presumably, the person most competent to afford an explanation of the nature of the case he has observed, and of its bearings either upon pathology or treatment; and to draw from it whatever lessons it is capable of affording. The history of the case is thus kept, as much as possible, separate from the opinions and conclusions deduced from its study. The facts accurately related would thus, it might be hoped, constitute a record valuable for future reference, even though the inferences drawn from them at the time of their occurrence should subsequently be set aside. It is obvious from these regulations, that the founders of the Society had not only a definite idea of what it was to aim at doing, but also took considerable pains to secure the accuracy and completeness of the work to be performed.

For more efficiently carrying into effect the object of the Society, it was resolved, at an early meeting of the Council, that the President shall have authority to nominate, from time to time, committees consisting of not fewer than three members of the Society, for the purpose of carrying out the investigation of clinical and especially therapeutical questions.

Now let us endeavour to ascertain how far these plans have been successful.

With regard to the first class of communications, it has occurred, as might have been expected, that they have formed by far the greater proportion of the papers read at the meetings; and I venture to say that it is impossible to read the volumes of our *Transactions* without observing that they have been, for the most part, extremely interesting, and mainly in accordance with the scheme of operations laid down in the laws of the Society. This has been largely due to the energy, zeal, and good judgment of the several gentlemen who have successively held the office of Secretary; and, whilst referring to the services of these gentlemen as a body, I cannot help specially naming our first Medical Secretary, Dr. Burdon-Sanderson, without whose active co-operation the Society never would have existed, and to whose logical and strictly scientific cast of mind we mainly owe whatever is best in the original scheme of the Society's operations. Having latterly devoted himself, almost exclusively, to a different kind of scientific work—in which, I need scarcely remind you, he has gained a world-wide reputation,—we have unhappily lost him as an active fellow-worker among us; but I know that we still have his cordial sympathy in our labours, and feel sure that we may count upon his assistance on any suitable occasion.

It would manifestly be impossible to mention the many communications of this class in detail; but I may, perhaps, without impropriety, refer to a few of them as illustrations of the work that has been done. I must, however, premise that I shall select them without any view to their comparative excellence, but solely because they relate to cases which possess some special pathological or practical interest.

At our second meeting, held on January 24, 1868, important communications were presented by Drs. Hermann Weber, Murchison, and Burdon-Sanderson, upon sudden death in rheumatic fever, with excessive temperature. These cases were read here some months prior to the publication of our associate Dr. Wilson Fox's very interesting monograph on the same subject; and, with the exception of three cases, published in the *Medical Times and Gazette* by Dr. Ringer in 1867, they were, I believe, the first brought before the profession in this country. Several other cases of high temperature, either in rheumatic fever or other diseases, have been subsequently communicated to the Society by Drs. Hermann Weber, Southey, and C. T. Williams, and gave rise to very interesting discussions upon the use of cold baths in the treatment of hyper-pyrexia.

At the first meeting in our second session, Mr. Hulke read the history of a case of ichthyosis of the tongue, upon which epithelioma supervened. I believe I am correct in stating that this was the first instance of the kind ever recorded, though our *Transactions* contain similar cases, reported at later dates, by Sir James Paget and Mr. Brown.

The volume for 1868-69 also contains a valuable paper by Dr. Peacock, giving an analysis of 146 cases of acute and sub-acute rheumatism, made chiefly in reference to the proportion of cardiac complications. Coming from so distinguished an authority on diseases of the heart, and founded on such an extensive and prolonged experience, this paper cannot fail to be of permanent value.

Among our more important and interesting communications, in an etiological and pathological point of view,

was a case recorded by Mr. Langton in 1877. It was one of cutaneous eruption contracted by a groom from attending to a horse with cracked heels; and it singularly corroborates the facts adduced by Dr. Jenner, showing that the affection in the heels of horses called "grease" is capable of exciting, in the human subject, a disease which exactly resembles cow-pox, and which, like it, affords protection from the contagion of small-pox. Neither must I omit a passing reference to Sir William Gull's very striking cases of anorexia nervosa that appear in our seventh volume of *Transactions*.

Diseases of the skin and of the nervous system have, of late years, attracted a large share of the attention of some of our ablest and most active workers. Upon the latter subject, especially, we have had many admirable and most valuable communications, far too numerous to allow of detailed mention in the brief time at my disposal; and where all have been excellent, it would be manifestly improper to make any selection.

We have had many very interesting surgical papers upon which I do not feel myself altogether competent to offer an opinion; but I may refer to those on aneurism in various situations, as appearing to me peculiarly valuable. Whilst upon this subject, papers in the fifth and seventh volumes of our *Transactions* seem to deserve special mention. In the first of these papers Dr. Cockle relates a case of aneurism of the thoracic aorta, in which Mr. Heath tied the left carotid artery, in the hope of producing consolidation of the contents of the aneurismal sac, and bringing about what Mr. Holmes happily calls "a practical cure." In the second of these communications, Mr. Holmes reports a similar case, in which he also tied the left carotid artery for aneurism of the thoracic aorta. Both the patients were exhibited here, and in both of them the result of the operation was "indubitable and very marked relief." Mr. Heath's patient lived for several years, and appears to have died in consequence of resuming hard agricultural labour, which brought on a recurrence of his disease. An instance reported in our seventh volume by myself, of spontaneous cure of thoracic aneurism, where some of the distal arteries were obliterated, seems to lend great support to the propriety of this operation.

Few important novelties in surgery have failed to be brought forward at our meetings. Mr. Pollock communicated to us in 1870 a series of fourteen cases in which he had practised skin-grafting, or transplantation, in patients suffering from indolent ulcers; and, on the same occasion, Mr. Lawson read the history of two similar cases. These cases were treated in St. George's and the Middlesex Hospitals soon after M. Reverdin originated this plan of treatment, and were the first of the kind recorded in this country. Papers on Esmarch's method of preventing loss of blood during surgical operations were brought before the Society by Mr. Henry Arnott in 1873, and subsequently by Professor Esmarch himself in the following year.

The modes of preventing hæmorrhage by acupressure, torsion, and various kinds of ligatures, were also fully discussed at several of our meetings, the subjects having been introduced by the late Mr. C. H. Moore and by Messrs. Cooper Forster, Callender, Gant, and Bryant. The employment of Sayre's jackets in the treatment of spinal disease was recently advocated by Mr. Berkeley Hill; and the management of wounds on plans calculated to prevent the occurrence of erysipelas and other diseases arising from uncleanliness was brought before us at a very early date by our late valued coadjutor and Vice-President, Mr. Campbell De Morgan, by Mr. Durham, and more recently by Mr. Callender: showing that our London hospital surgeons are as keenly alive as any others to the necessity of guarding against, and as successful in averting, such untoward sequences to surgical operations. Whilst upon this subject I must not omit to mention that one of my predecessors in this chair, Mr. Prescott Hewett, showed conclusively, in one of his addresses, that pyæmia, one of the diseases said to be caused, for the most part, "by hospital air and the aggregation of surgical cases in the wards of our large hospitals," occurs also sometimes in patients placed in perfect isolation, in good houses, well-ventilated bedrooms, and, in fact, to all appearance under the most favourable conditions. This would seem to indicate the existence of some state of the patient predisposing him for the disease, or possibly some peculiarity of season favouring its development.

As regards therapeutics, which was one of the departments to the advancement of which it was hoped the Society would conduce, I may refer to cases recorded in our *Transactions* by Mr. De Morgan and Mr. Hulke, on the treatment of cancer by condurango, showing the uselessness of that once much vaunted remedy; also to communications upon the value of nitrite of amyl by inhalation in angina pectoris, by the late Dr. Anstie and by Dr. Brunton. I need scarcely say that these latter communications have borne good fruit, as many of us have doubtless found in the treatment of similar cases.

One feature of our *Transactions* must not be overlooked; it is that on many subjects we have had a succession of communications. I have already referred to those upon aneurism. We have likewise had several instructive papers on the treatment of ascites, communicated by the late Dr. Hillier and by Drs. Bristowe, Henry Thompson, Robert Liveing, and Day; and others on the employment of tapping in pleuritic effusion, by Mr. Berkeley Hill, and by Drs. Douglas Powell, John Murray, Cayley, and Broadbent.

If the work done by the Society, in the form of papers upon cases already complete, has been ample and satisfactory, that done by committees has been, I think, less than might have been expected. In looking through the volumes of *Transactions*, I find only eighteen reports made by committees upon individual cases. No less than seven of these were made during the first brief session of 1868. Of the remainder, seven only were founded on cases brought forward with the view of being submitted to the consideration of a committee; the other four having been upon cases referred to a committee for examination, on account of some doubt being expressed by the Society as to the deductions drawn by the authors from the facts they related. The perusal of these reports well shows the advantage of submitting suitable cases to the investigation of committees, consisting of members selected for their special acquaintance with the subject under consideration. Seeing how largely the *Transactions of the Pathological Society* have been enriched, and doubtful questions of morbid anatomy elucidated, by the reports of the "Morbid Growth" and other committees of that Society, I cannot help feeling that we have not in this respect carried out our programme so fully as might have been desired.

One of these reports on vaccino-syphilis touches on a subject so important as to merit special notice. It was founded on a case which, if not, as I believe, the earliest authentic case of the kind, was at least one of the earliest recorded in this country; and preceded by several months the more extended and complete groups of cases communicated by Mr. Jonathan Hutchinson to the Royal Medico-Chirurgical Society. Such instances are, in fact, so exceedingly rare, that whereas successful and healthy vaccinations can be counted by millions, these mischances—if I might employ such a term for unhappy results which can be entirely avoided with due care—can only be reckoned by units. The facts contained in these papers indubitably prove that carefully conducted vaccination cannot convey syphilis, even when the vaccinifer happens to be the subject of that disease. In Mr. Smith's case only one of the four punctures was infected with syphilis; the other three having escaped, although they presented the proper appearances of vaccination. Mr. Hutchinson's wider experience leads him to the conclusion (which is, indeed, but a necessary deduction from the facts he has so clearly recorded) that the vaccine virus and the syphilitic virus were present in totally different fluids; and that the one might be conveyed in all its vigour without any admixture of the other. He shows that it is "quite possible for vaccine lymph and blood to be transferred at the same time, and for each to produce its specific results"; but, on the other hand, that by suitable precautions it is no less "possible to vaccinate successfully from a syphilitic infant, in the utmost stage of potency as regards its blood, without communicating syphilis."

Two most important lessons are deducible from the history of these cases—the one, that the greatest care should be exercised in the selection of children from whom vaccine lymph is drawn; the other, that it should be the rule in every case to use only the transparent lymph drawn from pustules at the proper stage of the disease; and that whenever blood is accidentally drawn by the puncture, the lymph from that vesicle should be rejected. I repeat, due attention being paid to these precautions, and also to the health of the child proposed to be vaccinated, "small-pox," in the

words of Mr. Simon, "need cause no further fear, nor its antidote be accepted with distrust."

I hope that I may be pardoned this digression, springing out of Mr. Smith's paper, on account of the great importance of the subject. Of the many blessings conferred on mankind by the art of medicine, none probably has been so widely beneficial as the discovery of vaccination. It is not too much to say that it has been the means of saving hundreds of thousands of lives which would otherwise have fallen victims to small-pox, and prevented millions of persons from life-long disfigurement. Those among us who can carry our recollection back far enough, cannot fail to be struck by the inconsiderable number of persons now met with, who present the seared visages so common a consequence of small-pox among the members of the older generation forty years ago.

The discussions consequent on the reading of communications have formed a very useful part of our proceedings. They have been most interesting, and have rarely failed to develope and add to the value of the subject under consideration. Indeed, they have in many instances possessed a very high degree of merit. It would be impossible to dwell at length upon this part of our work, but I may be permitted, amongst so many that have been good, to refer especially to one on so-called fibroid phthisis, held upon a paper read by Dr. Andrew Clark at one of our early meetings. To the discussion already referred to, on the employment of cold baths in the treatment of hyper-pyrexia; to that on pyæmia, held after one of Mr. Prescott Hewett's addresses; to that on the use of salicin and its congeners in the treatment of rheumatic fever; and also to those on several important surgical questions; and especially to recent discussions on the subjects of aneurism, rodent ulcer, and gastrotomy, as having been, in my opinion, both excellent and most valuable. The interest taken in some of the discussions has been so great, that the propriety of printing them, either in full or in abstract, in the *Transactions* has been more than once suggested to the Council, who have, however, uniformly, and I conceive judiciously, negatived the proposal.

Only four committees have been appointed by the President, under the regulation passed by the Council at one of its earliest meetings. Two of these have reported; two are still sitting, but we hope to receive their reports during the present session. One of the latter is inquiring into the "incubation period of scarlatina, diphtheria, typhoid fever, erysipelas, and allied diseases"; the other into the "deleterious effects which follow the prolonged and continuous use of chloral in ordinary doses." From the former of these committees, in particular, we may hope to receive an important and valuable report. We already know, with considerable accuracy, the period of incubation that elapses between exposure to the contagion and the evolution of the symptoms in small-pox and measles. It is probable that the period is less definite in some of the analogous diseases which form the subjects of inquiry; and it is also probable that the irregularity may vary among them, and be greatest in such diseases as typhoid fever and cholera, in which local insanitary conditions are mainly instrumental in spreading the disease. The state of the patient at the time of exposure will, perhaps, also be found an important element in determining the duration of the latent stage.

Whilst on this subject, I may observe that we already have, in the last volume of our *Transactions*, a most instructive paper on the period of incubation in scarlet fever and some other diseases, by Dr. Murchison; from which it appears certain that this period varies within considerable limits in some of these diseases. If this should be confirmed by the wider inquiries of our committee, it will become very important to inquire into the causes of such variations. Sir William Jenner is chairman of both these committees —a sufficient guarantee that the greatest care and widest experience will be brought to the examination of the facts and opinions upon which their conclusions will be founded.

Of the committees which have already reported, the first was appointed to "investigate the temperature in syphilis." It was composed of Dr. Bäumler, Dr. Duffin, and Mr. Berkeley Hill, and their report was read at a meeting of the Society held May 27, 1870. Although that report was only considered by its authors as a preliminary one, they were able to arrive at certain conclusions in reference to syphilitic periostitis and affections about the joints. I think it is much to be regretted that the investigation, thus commenced, was not extended, either by means of the same or of some other committee, to an inquiry into the characters and peculiarities of the febrile stage accompanying the onset of constitutional syphilis, more particularly the cutaneous eruptions.

The other committee to which I referred was appointed "to investigate the value of quinine as a means of diminishing bodily temperature and pulse in pyrexia." It comprised Dr. Murchison, Dr. Symes Thompson, and Dr. Hermann Weber, and their report was read on May 27, 1870, and is printed in the same volume of our *Transactions* as that on temperature in syphilis. This report seems to me a perfect model of what such reports should be. On commencing operations the committee laid down a uniform plan for conducting the investigation, and entered the results of each experiment in a tabular form, prepared beforehand for that purpose. Discarding a large number of preliminary observations, from which no conclusions could be drawn, their report is founded upon fifty-two cases of various kinds of acute disease; and their conclusions are unquestionably of great value. This committee again regarded their investigation as quite a preliminary one, and suggested a further examination of the subject—a suggestion which I should rejoice to see still carried out.

And now gentlemen, in conclusion, what encouragement can we derive, or what suggestions may we gather, from this very imperfect sketch of our past labours, to guide our future course? The Society has done good and valuable work. It has given facilities for bringing prominently forward many questions that might otherwise have failed to obtain such wide diffusion; it has been most useful in affording an opportunity for the interchange of opinion and the free discussion of questions of practical interest; and we must all, I think, feel that these discussions have led us to listen with respect, and to consider with care, the opinions of others, even though we ourselves may have differed from them. For myself, I can honestly say that I have rarely heard a paper read, or listened to a debate, without deriving from it some valuable information or some useful practical hint.

But, although we have thus good reason to be satisfied with the past, we cannot regard our work as having been altogether perfect,—there is still room for improvement; and it would be well for each of us, when drawing up cases to be presented to the Society, to remember the regulations laid down in our laws, and to cast them strictly in the shape therein provided. As regards communications upon cases still under observation, probably my reference to the subject will serve to remind us that, whenever it seems desirable, the Society will be ready to associate a committee to assist in investigating an unusual case, or to verify uncommon facts. It appears to me, however, that our chief development might advantageously take the direction of making original investigations by means of committees. We have already done so to a limited extent; but such work might with great advantage be increased. Subjects of scientific importance, or of great practical interest, could, undoubtedly, be satisfactorily inquired into by us. Any report emanating from a select committee of this Society would be received with respect, and would, unquestionably, carry great weight with the profession at large.

I may mention, as an illustration, one such subject that occurs to me, which it might have been advisable to refer to such a committee for investigation some time since, when we had a most animated debate upon the use of salicin and its congeners in rheumatic fever. A committee appointed at that time for the purpose of investigating the effects of salicin and its compounds, might have aided in placing it in its proper position as a remedy for acute rheumatism. Having, by your favour, held an important position on the Council since the formation of the Society, I feel myself largely to blame for having allowed so good an opportunity of usefulness to pass by unimproved. We have all, probably, now formed our own opinion as to the value of salicin from personal experience, for it has, I believe, been largely tried in all the London hospitals; and it is, therefore, perhaps no longer necessary or desirable to institute an investigation which might have been useful and appropriate at an earlier period; but similar opportunities are certain to arise, and I trust that we shall use them, and so assist the advancement of our art.

In the early days of the Society, when its position was less assured than at present, and its pecuniary resource

were small, it was necessary to husband our funds, so as to provide for carrying on the operations of the Society for a year or two, even though we should on some occasion expend more than the income of the year. This state of things no longer exists. We have accumulated a small capital, and for several years, though our expenditure has been liberal as regards the cost of the annual volume of *Transactions*, our income has exceeded our requirements. It might now, therefore, be a proper question for the consideration of the Council, whether committees consisting of not less than three persons, selected from among some of our able and energetic young members, might not be appointed, from time to time, to undertake the practical investigation of important subjects bearing especially upon therapeutics or etiology; receiving from the Society a moderate honorarium for their services. I merely venture to offer this suggestion for consideration, "without prejudice," as the lawyers express it.

If the Society continues as it has begun, and especially if it aims at doing higher and more complete work, its volumes of *Transactions* will in the future, even more than in the past, constitute a rich storehouse of information; gathered together, I trust, for the legitimate objects of the art of medicine—namely, "the glory of God and the relief of man's estate."

ORIGINAL LECTURES.

VIII.

CLINICAL LECTURE
ON VARIOUS KINDS OF PERIMETRITIS.

BEING THE EIGHTH OF A COURSE OF LECTURES DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL

By J. MATTHEWS DUNCAN, M.D., LL.D.,
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THE diseases to be considered to-day are various forms of internal inflammation. That pathological condition is the cause of the most frequent, and therefore—and for other reasons—the most important diseases of women. Inflammations not of distinct organs, as of the uterus or of the ovaries, are divided into two sets—perimetric and parametric. To-day we consider inflammations in the former category. When I say "inflammations not of special organs," I do not wish you to understand that inflammation of special organs, as ovaritis or metritis, has nothing to do with the diseases under consideration; for, although we speak, for example, of metritis and of perimetritis separately, yet the metritis, or it may be, ovaritis, is frequently the cause of the perimetritis, and error as to the frequency of inflammation of special female organs arises from neglecting this circumstance.

There are three kinds of perimetritis—adhesive, serous, purulent. Of these three the purulent is the most important, including, as it does, a large number of what are called pelvic abscesses; but of the purulent form I have no time to say anything to-day. There may be another kind of perimetritis characterised by dryness and slight roughness of the peritoneum; but, from the deep position of Douglas's space in the body, this form of inflammation has, so far as I know, never been recognised in this situation. It is common in cases of uterine fibroid and in cases of ovarian dropsy, and is easily made out by friction being both felt and heard. It often lasts for a long time, and does by no means always end in producing adhesions.

Adhesive Perimetritis is almost certainly second in point of frequency among the diseases of women, the first position being held by uterine cervical catarrh. In post-mortem examinations of women no pathological condition is more frequently discovered than adhesions between the internal genital organs and neighbouring parts, especially about the ovary. The disease is generally characterised by very little, or by complete absence of, pain; it is generally, not always, limited in extent; and generally, so far as the life the patient is concerned, it is of little importance. Persistent adhesions are sometimes the cause of aching or more decided pain, as John Hunter knew; but then persistence is a somewhat rare occurrence. Adhesions in this situation are gradually worn away and removed just as they are when in the pleura or in the pericardium; and about the womb the same filmy or stringy adhesions, sometimes of great length, are not rarely observed, just as they are observed in post-mortems in the pleural cavity or in the pericardial. At length all these adhesions disappear. The upward and downward movements of the viscera rub them all away. They persist longest and may be never removed about the ovary, and when persistent there they connect the ovary with the neighbouring tube and broad ligament; and you can easily understand why they are not removed here, for the mechanism of their removal is absent, there being produced by inspiration and expiration no movement of the ovary upon the parts to which it remains persistently adherent. It is only in rare cases that uterine adhesions remain, either getting so organised as to resist the mechanism of their removal, or being so fixed as never to yield to it. An instructive illustration of this disease in its earliest stage was lately seen in the post-mortem theatre. The case was one of malignant disease of the cavity of the uterus, and solution of perchloride of iron had been injected into it. The woman died within two days afterwards. She had no complaint of pain in the region of the womb, but she had perimetritis—the characteristic perimetritis confined to the peritoneum of Douglas's space. The report of the autopsy says—"The posterior surface of the uterus and Douglas's space were injected and covered with a thin layer of recent lymph." Before I leave this kind of perimetritis I must remark upon its recent and insufficient recognition, and this arises chiefly from the circumstance that the professional mind connects with peritonitis high fever and intense pain. An adhesive perimetritis frequently occurs without any symptoms at all—indeed, generally. It produces fixation of organs and the feeling of solid lumps in the pelvis; and these feelings have hitherto proved a fertile source of error.

Before I leave this subject I must say a few words regarding a case which has just been dismissed from "Martha." In this case the adhesive perimetritis was produced by the use of pessaries—a not unfrequent cause of the disease. The case illustrates well the physical conditions and the rapidity with which evidence of the disease may disappear. At the end of the case you will observe the contrast with the description of the beginning, there being only left a little tautness on one side, no doubt the result of adhesions still persistent in that situation. You will remark also how, as improvement went on, a lobulated feeling supplanted the previous more uniform surface, the disappearance of the diffused inflammatory swelling allowing the forms of the organs to be felt.

Mrs. C., aged twenty-four, married for three years, had a child a year before admission, and a miscarriage seven months thereafter. Menstruation is copious, painful, and lasts a week. Micturition has been painful for the last fortnight. Feels and looks ill. Temperature 99·6°. Complains of pain and tenderness in the lowest part of the abdomen, chiefly on the left side. This she has had more or less for three years, and she has worn a large number of instruments for "bent womb." Latterly she has been so much worse as to seek refuge in the hospital. Externally tender hardness can be felt occupying the brim of the pelvis. The cervix uteri is in its natural situation, and all around it, especially posteriorly, is dense, uniform, tender hardness extending to the bony brim and producing fixation of all the organs and parts in this situation. The uterus is natural in situation, and there is no special tenderness of its interior. She was ordered to have moderate diet, to be confined to bed, to have hot cataplasms to the hypogastrium, and to have the bowels regulated. Under this treatment she gradually improved, losing all pain and tenderness. After nine days' confinement in bed, examination discovered great diminution of the tenderness of the hardened and fixed parts; there was a lobulated feeling in the hardness, the organs being felt through it; and the uterus was nearer to the sacrum. After sixteen days' confinement in bed, the hardness was no longer to be felt per hypogastrium. Per vaginam the uterus could be made out, somewhat anteverted; its cervix adjoining the upper part of the sacrum. It is easily displaceable, and no adhesion can be made out except on the right side, where there is tautness produced by moving the uterus from it. She feels now, and looks, well.

I now come to consider Serous Perimetritis. This form of the disease is very uncommon, at least in a well-marked form. In an imperfect clinical form it is frequently observed

in the post-mortems of cases where there has been peritonitis, there being found, under such circumstances, adhesions at one part and little collections of serum at another. Such collections may be numerous, and some of them may be of pus, not of serum. The serous perimetritis that I am now speaking of resembles purulent perimetritis or pelvic abscess in every respect, except the slighter degree of the symptoms of suppuration. Its special character is only, so far as I know, recognisable by evacuating the contents. This is done according to the same surgical plans as in cases of purulent perimetritis or pelvic abscess; and when it is done, the peculiar nature of the disease is discovered, serum being withdrawn instead of pus. Analogous collections of serum are more frequently observed in the pleura than in the hypogastrium; in the latter situation they are undoubtedly rare. In the first case which I shall read to you, the disease was characteristically retro-uterine, the tumour filling the pelvis, and bulging downwards in a manner often compared to a stage of progress of the fœtal head, filling the pelvis. This retro-uterine position is common in hæmatoceles. In a well-marked case you have to press the finger between the swelling and the symphysis pubis in order to reach the cervix uteri, which is displaced upwards. So it was in the case that I am to read. This forcing of the finger you have also to do in some uterine and ovarian tumours, and in retroversion of the gravid uterus; and it is well to keep these facts in mind. The case I am just to read was supposed to be an abscess, and it was resolved to open it behind the cervix uteri. The finger was applied to feel if any artery was pulsating at the point of selection in the mesial line. This point is selected in order to insure entering the expanded Douglas's space. Here, in a healthy woman, the peritoneum comes in apposition with the roof of the vagina; but I would not warrant that any of you would puncture Douglas's space with any certainty in a healthy woman, for the extent of vaginal roof covered by peritoneum is then very small; but when Douglas's space is expanded by being filled with serum, pus, or blood, which are detained there by adhesions formed above, enclosing the serum, and pushing it downwards into the pelvis to a greater or less degree, then there is no difficulty. If you are sure of the nature of your case, and of the need for interference, you plunge your knife into the point of selection, and the fluid flows. Now for the first case.

Mrs. B., married four years, had one child four months ago; no miscarriages. About a month after her confinement she began to have pain in the hypogastrium, and shortly afterwards pain and difficulty in micturition, and constipation. On April 4 she was admitted to "Martha." Her bowels then had not been opened for a week. They acted freely after a dose of castor oil. Temperature in morning 100·8°, in evening 101·6°. The lower part of the abdomen is occupied by a hardness, somewhat tender, nearly of the shape and size of a four-months gravid uterus, but not of the same feeling. There is comparative dulness on percussion over it. The pelvis is occupied by a globular elastic mass. The cervix uteri is with difficulty reached by pressing the finger between this mass and the pubes. The uterus is above the pubes. The probe passed into it enters two inches and a half, and it is deflected to the right side, the fundus being situated about four inches above the right Poupart's ligament. The tumour in the pelvis makes the perineum bulge, and the rectum at the anus is partially everted. The tumour was opened per vaginam by incision in the mesial line, when about a pint of slightly turbid serous fluid escaped, and the hypogastric swelling disappeared. Next day the temperature was 99·8°, and afterwards soon normal. Slight blood-stained discharge went on for a few days. Ten days after the opening of the collection there was to be found only induration behind the uterus, which was fixed. She left the hospital feeling quite well.

Local peritonitis of any kind, or perimetritis, is not a rare complication of a uterine fibroid or of a small ovarian tumour; and the next case which I have to read to you is an illustration of this disease. The case, I admit, is not so clear as the one just related to you, about which there could be no doubt; but I have scarcely any hesitation as to the cause of the conditions in the large serous collection, whose history I have now to read. There was never any evidence of the existence of a sac enclosing the serum; indeed, the whole clinical evidence tallies only with the presence of a serous perimetritis of an extensive kind. The basis of the disease was, no doubt, a tumour of the pelvic organs, which was not discovered until late in the history of the case. You will observe that during its progress the urine suddenly became albuminous, and bloody stools were passed. These occurrences were simultaneous with diminution of the serous accumulation, and were, at the time, supposed to arise from discharge of the serum through the bladder and through the rectum. This is, however, only a supposition. I am indebted to Dr. Church for this case, having been consulted by him repeatedly in regard to it.

L. M., a virgin, aged eighteen, healthy-looking and well-nourished, was under treatment three months before admission for pain in her right side. Nine days before admission it returned, and has been getting worse since, and her attention has been drawn to a swelling in the lower belly. Pulse 120; temperature 101°. The lower half of the abdomen is excessively tender, especially on the right side, and is occupied by a large tumour, which protrudes in the middle. The tumour is dull on percussion, with some resonance in the flanks, especially in the left. It rises to an inch above the umbilicus. The uterus is found to be low down, its cervix pointing forwards. The roof of the vagina is not hardened, and the tender swelling above can just be felt through it. The catamenia are regular, profuse, not painful. Micturition very difficult. The day after admission she was tapped by Mr. T. Smith, and a pint of clear brownish serum drawn off; it solidified on heating. This operation relieved her pain. The day after, pulse 100; temperature 99°. Eight days after the operation, pain and fever returned, but soon subsided. On the ninth day after the operation, the urine contained pus and albumen (half). In a week afterwards the urine was again normal. Two days after, pus and albumen were found in the urine. She had bloody stools, with diarrhœa for a day. All this time the tumour was gradually diminishing. Seventeen days after the tapping it was found that the abdominal tumour was gone. Dulness in the hypogastrium extended two inches upwards from right Poupart's ligament. The uterus is high up, and far back in the pelvis. Above it, in front of it, on its right side, and just accessible by the tip of the examining finger, is a rounded tumour, of the size of an orange, displaceable, but not freely mobile nor presenting distinct indications of connexion with the uterus. She was discharged in good health.

I now come to the last subject of this lecture—Remote Perimetritis. This kind is not in the same category with adhesive, serous, and purulent perimetritis. Each of these kinds may be remote. There are remote inflammations of serous membrane, well known in female pathology, which are produced through or in connexion with a constitutional affection, as in septicæmia. The remote perimetritis we are now considering has no such origin or history. It is analogous to the remote parametritis, upon which I hope to lecture this day fortnight, and whose history is better known than that of remote perimetritis. In remote perimetritis the inflammation was at one time continuous with the pelvic peritoneal inflammation. In remote perimetritis the pelvic peritoneal inflammation may have disappeared while the inflammation persists in a remote region, or the remote inflammation may co-exist with the persistent pelvic peritonitis. The best example I have ever seen of a remote perimetritis, where all inflammation of the uterus and its neighbourhood had disappeared, occurred in one of the clinical wards of the Royal Infirmary of Edinburgh, and I was called to it by the late Professor Laycock. The history of that case showed distinctly that the peritoneal inflammation which persisted had originally been part of an extension of a perimetritis after delivery. When I saw it the uterus was mobile, and the roof of the pelvis was soft and not tender. The only disease was a rounded swelling containing fluid, situated below the navel, and to the left side, and which produced the constitutional symptoms of suppuration. The prognosis of the case was favourable, and it ended as had been predicted. The abscess burst into the intestinal canal and suddenly disappeared, leaving behind it only local hardness.

I shall conclude my lecture by giving you an example of remote perimetritis, coming on many weeks after an unfortunate confinement and imperfect recovery, where the inflammation extended to the remoteness of the umbilicus, but maintained its continuity with similar inflammation in the roof of the pelvis. This case is remarkable for many reasons. It is rare; it occurred long after the liability to perimetric attacks following delivery had ceased to be dreaded.

It caused severe constitutional symptoms, but the local symptoms were of the slightest kind; yet the physical examination discovered abundant evidence of the local disease. The patient was the wife of a physician, and was very carefully watched, and the history is very instructive. The evidence of a large tumour excited great alarm, from the difficulty of being satisfied as to its exact nature. I never doubted as to its real nature; and the history of its origin and of its complete disappearance leaves no room for entertaining any view of it other than that it was a case of remote adhesive perimetritis. The tumour could be handled freely, and in every part of it there was resonance on percussion. I here give you only a sketch of the case.

Mrs. M., aged thirty-six, has had, since her marriage at twenty years of age, nine children and two miscarriages, and was confined on May 25 of her tenth child. Had hæmorrhage an hour and a half after the birth of her second child; labour natural. Tenth child weighed ten pounds and a half. After the birth of the child a drachm of ergot was administered. Fever supervened on the second day, and was subdued by the liberal use of salicylic acid, which at the same time produced very painful symptoms. On the tenth day after delivery I was called, and found her feverish and suffering from occasional nausea. The uterus was large, rising nearly to the umbilicus, but not tender; the lochia not offensive. Ergot was administered, and the following day a rounded decomposing clot of blood as big as an orange was expelled. The uterus gradually resumed its proper dimensions. She suckled her child till near the end of the second month. About this time she went out driving more than once, but her temperature never descended to its normal condition. Then she was suddenly seized with the perimetritic disease. It was announced by giddiness, and severe and persistent bilious vomiting, slight acceleration of pulse; no further rise of temperature, no abdominal pain or tenderness. Some diarrhœa, weakness, prostration, and emaciation came on, and gradually increased, and Professor Gairdner, who saw her, considered her disease to be an indistinctly defined swelling in the hypogastric region, the result of an inflammation having its origin in the pelvis. The swelling was not tender. I again visited her on the sixty-seventh day after her confinement. The whole lower half of the abdomen was occupied by an ill-defined, moderately hard, not tender, swelling, not dull on percussion, evidently formed by the matting together of the pelvic viscera and superjacent intestines as far as the level of the umbilicus. The uterus was fixed, and tender hardness surrounded it. She was kept in bed, and the abdomen was kept anointed by iodised oil. She slowly recovered. Before six weeks had passed from my visit, the temperature had resumed and maintained a normal condition, and she began to put on flesh. After some more weeks no trace of the abdominal tumour could be discovered on the most careful examination. Since then she has had another child without any trouble or alarm.

"Counter Practice" in France.—The following case is quoted by the *Lyon Médical* from the *Journal des Connaissances Méd.* for January. A woman obtained at a *pharmacie* a little Goulard water for her husband who had sustained a slight burn, the *pharmacien* little suspecting what would happen to him for supplying it. At the end of a few days the man died with all the symptoms of tetanus duly certified by his attendant; but the widow took it into her head that his death had been caused by the application sold to her by the *pharmacien*, and at once set the law in motion. An expert was appointed to make an examination of the lotion, and found that it consisted of a very diluted solution of acetate of lead. On the case being heard it was decided that the man had died of tetanus, and that all idea of poisoning was out of the question; but the verdict did not acquit the unfortunate *pharmacien*, for he was declared to have committed an illegal act of the practice of medicine by selling to the wife of the deceased the Goulard water without a prescription. As "extenuating circumstances" existed, however, he was *only* fined 500 fr., which with costs was increased to 625 fr., to say nothing of what he had to pay his advocate, loss of time, and the bad reputation his *pharmacie* will have gained—for nothing will ever persuade the gossips of the neighbourhood that the Goulard water did not cause the death.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF GLAUCOMA.

By W. SPENCER WATSON, F.R.C.S.

If we inquire into the history of glaucoma, we find that very vague notions prevailed as to its nature and pathology up to the time of Gräfe. He demonstrated the fact that intraocular pressure was the one essential characteristic of the disease, and that this was associated with visible pulsations of the retinal arteries, and after a time with perceptible excavation of the optic disc. That the eyeball was harder to the touch in glaucoma than in the normal condition had been recognised previously by several observers, notably by Demours, Weller, Platner, and W. Mackenzie. The last named was the first to propose puncture of the sclerotic coat as a remedy, but it does not appear that he put this suggestion into actual practice. To Gräfe, however, is due not only the merit of having demonstrated that the intraocular pressure was the one chief characteristic of glaucoma, but also of having practised the operation which has up to the present day been most in favour for its relief, viz., iridectomy.

It would, however, be out of place to give details as to the various theories of glaucoma, except in so far as they bear upon treatment; for whether we regard it as a posterior arthritic ophthalmia (the view taken by Beer, Wharton Jones, and others), or as a change in the vitreous humour and hyaloid membrane due to senile degeneration (the theory advocated by W. Mackenzie and Middlemore), or as an alteration of the nutrition of the intraocular membranes due to irritation of the sympathetic (the theory suggested by Wecker), or as a spasm of the ciliary muscle (Hancock's view), or as a degeneration of the sclerotic coat analogous to that of the palmar fascia in chronic contraction of that part (Jonathan Hutchinson's view); whether we regard it as a primary affection of the eyeball, or as a secondary result of changes in the nerves or vessels connected with that structure—in any case the main danger consists in the exalted intraocular pressure, and the removal of this mechanical danger by mechanical means is the only treatment which can be of any avail. Prophylactic measures are of course to be adopted during the premonitory stages; but this does not affect the main proposition, that surgical treatment is alone to be relied on in the confirmed disease.

The operations from which relief is chiefly to be anticipated are iridectomy and sclerotomy. Simple paracentesis of the cornea has a certain value, and, if repeated often enough, might perhaps be thoroughly effective, but the necessity of frequent repetitions is in itself a condemnation.

Iridectomy is described fully in all the text-books; but sclerotomy is not so well known, and a short description may not therefore be out of place. The operation may be performed at any part of the circumference of the cornea, but the upper margin is perhaps the part least liable to objection. A narrow Gräfe's cataract-knife is made to penetrate the sclerotic at about one line from the apparent corneal margin, at a level with a line crossing at right angles the vertical diameter of the cornea opposite its upper one-sixth. The knife is carried horizontally across the anterior chamber, skirting its upper angle, and made to emerge at a point exactly opposite the point of entrance, but on the nasal side of the cornea. The edge of the blade is then made to cut its way out upwards obliquely through the sclerotic, until it is visible through the superjacent conjunctiva. This latter membrane is left undivided, and the knife slowly withdrawn from the wound. After completing the section the iris sometimes prolapses into the wound; more commonly it is drawn somewhat upwards, leaving a slightly distorted pupil, but without actual prolapse. There is a free escape of aqueous humour and a good deal of bleeding. The blood, however, does not find its way into the anterior chamber, but flows out through the conjunctival punctures.

In choosing between sclerotomy and iridectomy we are at once met with the fact that the former is a comparatively new operation; and that the mass of experience gained by the surgeons who have practised iridectomy is a very strong argument in favour of the latter. I have been led to give the preference to sclerotomy in many cases for the following reasons:—

1. Iridectomy cannot well be performed in some cases of

absolute glaucoma in which the iris is wasted; and in which, therefore, an attempt to seize a portion of it for excision endangers the lens-capsule or ligament, or both.

2. Iridectomy cannot well be performed in nervous patients when an anæsthetic is inadmissible, and when therefore it is desirable to shorten the steps of the operation as much as possible. Sclerotomy can be performed in less than half the time required for iridectomy.

3. In all cases of glaucoma with total loss of vision the only object of an operation is to relieve pain, and sclerotomy is preferable for this purpose.

4. Sclerotomy is preferable in persons who have been affected by eczema of the head or face. In these subjects any surgical operation is likely to aggravate the eczematous tendency, and therefore sclerotomy, as being a less severe operation, is to be preferred.

In a case already published, I performed iridectomy on one eye, and sclerotomy on the other of the same patient, with about equal results; but it is only fair to mention that the eye on which sclerotomy was performed suffered a relapse, for which the operation was repeated, and this time with a permanently good result—a result verified two years and a half after the operation.

Besides those to which I have alluded, there are other cases in which I cannot but think that sclerotomy would be less objectionable than iridectomy. It is often very difficult, when introducing the iridectomy-knife into a very shallow anterior chamber, to avoid wounding the lens. The incision employed in sclerotomy is less dangerous in such a case; it is also, I think, less liable to be followed by intraocular hæmorrhage—an accident not unknown during the performance of iridectomy. The section of the corneosclerotic junction in sclerotomy can be made much more slowly, and the knife can be withdrawn much less suddenly, than is the case in iridectomy. I am of course supposing that the section of the sclerotic is sub-conjunctival, and that the points of entrance and exit of the sclerotomy-knife are mere punctures, through which the aqueous humour can be allowed to drain away slowly, and that the intraocular tension is thus not too suddenly reduced, and the intravascular tension not too suddenly increased, by the removal of external pressure.

On the other hand, I am aware that sclerotomy has been proved dangerous to the eye from the incision having extended too far into the ciliary region, and from subsequent irritation of the eye operated on, and sympathetic irritation of its fellow-eye. This has not happened in any of my own cases, but the fact that it has occurred in the practice of skilful ophthalmic surgeons is sufficient to make a note of warning desirable.

In my own practice, a somewhat unsightly protrusion of the iris in the sclerotic wound was in one case a source of some irritation to the eye operated on, and much impaired the result; but I did not ascertain that any ill happened to the fellow-eye in this instance.

After the operation, whether of sclerotomy or iridectomy, I have found opiates in some form and bromide of potassium very useful in allaying irritation. Sulphate of eserine in the form of collyrium is also said to be useful, either when from any cause the operation is delayed, or after the operation if the tension returns. I have not found as yet that the tension is reduced by the use of eserine.

It is sometimes a point of anxious inquiry to determine how long after an attack of acute glaucoma there is a fair chance of restoring some amount of useful sight. There is probably always a fair chance as long as any, even the slightest, perception of light is detectable. Mr. Bowman has reported a case in which, even thirty-five days after all perception of light had been lost, the patient recovered useful vision (read Jäger 8) after iridectomy. As a rule, however, if twenty-four hours have elapsed since all perception of light has been lost, the chances of a restoration of useful or indeed of any vision are extremely small, and the best result to be hoped for is the relief of the neuralgic pains, from which the patient is probably still suffering.

A certain number of cases still remain in which neither sclerotomy nor iridectomy is admissible, where nevertheless the sufferings of the patient must be relieved by some means or other. If the eye remains stony, hard, and painful, especially if the symptoms have come on some time after an injury, and there are besides circumstances indicating the possibility of a foreign body being embedded in the eye; if too the sight is utterly lost—the best thing to be done is to enucleate the affected eye, and to avoid the present pain and the risk of sympathetic irritation of the fellow-eye. The same proceeding is necessary when copious intraocular hæmorrhage has occurred during the performance of or after iridectomy.

Several other methods of treatment have been employed, among which the principal are Hancock's and Vose Solomon's intraocular myotomy, and Dr. Argyll Robertson's operation of trephining the sclerotic.

Hancock's operation has, no doubt, been successful in many cases, but I cannot but regard it as dangerous, and consider it to be founded on a false conception of the nature of glaucoma. It would, moreover, appear impossible to attain the object proposed—viz., the division of the ciliary muscle—by following the directions laid down in the description of the operation as given by Mr. Hancock. It is at the best but a paracentesis of the sclerotic, and seems to be a paracentesis also of a region not generally wounded with impunity. Vose Solomon's operation is also a paracentesis of the sclerotic, certainly in a safer region, but, being founded on a theory of intraocular muscular spasm, it is on that account unworthy of support.

Dr. Argyll Robertson's operation of trephining the sclerotic has been very successful in his hands, and deserves, I think, a more extended trial in cases unsuited to iridectomy. It is, however, an operation requiring extreme delicacy of manipulation, and in Dr. Robertson's last modification of it must be still more so. He now only removes a disc of the sclerotic coat, and leaves the choroid undivided. This must be an operation of the greatest difficulty. If the trephine passes even one-hundredth part of an inch deeper than is intended by the operator, the choroid must be in danger of being divided. I have no doubt, however, that with great skill and care, such as Dr. Robertson employs, this operation is feasible.(a) The results have been exceedingly good thus far, and in one patient, of whose case Dr. Robertson has sent me some particulars, the cure has been permanent in a trephined eye. He states that "the thin yielding tissue that replaces the circular disc of the sclerotic removed will permit of ready transudation of fluid from the vitreous chamber, and this also acts as a permanent means of keeping down the intraocular tension."

In an analysis of 42 cases of glaucoma, I find that 28 were acute or subacute, 6 absolute, and 8 chronic forms of the disease. In 19 of the acute or subacute cases, iridectomy was performed with very good results in 9, with some improvement in 7, and with loss of sight or no improvement in 3. Sclerotomy was performed in 8 of the 28 acute or subacute cases, with 7 good results and 1 failure. In one case there was reported to be permanent relief afforded by the use of means for correcting an inversion of the lower lid, the irritation of which appeared to have been the exciting cause of the attack of glaucoma; and in one case paracentesis of the sclerotic into the vitreous chamber was performed with only temporary relief of the symptoms.

In the 6 cases of absolute glaucoma, vision was slightly improved in 1 by iridectomy, in 4 of the others relief of pain and tension was either only slight and temporary or was not afforded at all, and in 1 enucleation was performed with complete relief.

Of the 8 cases of chronic glaucoma, iridectomy was performed in 5, with decided improvement of sight in 2, and relief of tension but no improvement of sight in the other 3.

In 3 cases of the chronic form, sclerotomy was performed with considerable improvement of sight in one eye of one patient, with little or no improvement in the others, but with relief of tension in all. In one instance a chronic irritability of the eye, with rather extensive prolapse of the iris into the sclerotic wound, was noted.

From these statistics, however, I do not think we can draw any definite conclusions as to the relative value of iridectomy and sclerotomy. The number of cases of the latter operation is too small to warrant a comparison with the large amount of experience of iridectomy; but the cases seem important enough, and successful enough, to encourage a more extended use of sclerotomy in properly selected cases of glaucoma.

(a) Since writing the above, I have succeeded in trephining the sclerotic for glaucoma, and leaving the subjacent choroid undivided and protruding from the wound. The tension, however, in this case remained as excessive as before the operation, three days after it.

A CASE OF URTICARIA PIGMENTOSA.

By JAMES F. GOODHART, M.D.,

Assistant-Physician to Guy's Hospital and to the Evelina Hospital for Children.

I PUT the following case on record to add to the number of published cases of a disease of which there are at present but few, and that it may aid the recognition of others.

Esther B., aged seven months, a perfectly healthy-looking child, came to my out-patients at the Evelina Hospital on October 29, 1878. It had had no previous illness. Two months before it was brought to the hospital, when it was five months old, an eruption appeared upon the abdomen. It commenced with small whitish elevations, which were surrounded by a reddish blush, and seemed to cause irritation, as the child was given to scratching them. There was no notice of feverishness or other bodily disturbance at the time. They had not altered much in their appearance or course from then till now.

The following is the description of the appearance of the eruption when first seen:—The greater part of the entire body, though chiefly the stomach and back, is spotted with patches of deep brownish hue, some of them round, others oval or irregular. The intervening skin is white and natural, so that the disease is rather sharply defined where it occurs. The patches are not merely pigmented, but on close inspection are seen to be wrinkled-looking or slightly rugose, due to an irregular, slightly raised condition of their central parts, as might occur supposing the original condition to have been one of closely set blunted papules, which became confluent and persistent. The general aspect of the eruption is, indeed, that of a deep maculation of some fading eruption of rather wide distribution, with central paler flattened elevations. On pinching the skin between the fingers there is no induration of the deep parts, and the raised parts give a soft, kid-like sensation, in this respect unlike a lichen. There are smaller patches of similar character round the neck, back of the head, and ears. The hands and feet are free; so also is the face. The lower extremities are much less affected than the trunk. There are several wheals of urticaria over various parts of the trunk, and it is to be noted that they are surrounded by a livid-brownish staining, more red and less brown than the rest of the stains. The mother says that these are fresh patches just come out, and that all the others have come in the same way. I could not produce any factitious urticaria.

There are no marks or scars round the anus, nor any evidences of congenital syphilis. It has never snuffled. The child is not in such a cleanly condition as to be above the suspicion of flea-bites, though I have not seen any marks of such. December 17: Fresh patches of urticaria still come out in various parts, and the pigmentation is still deep around the older patches, but less so than it was. The irritation is also less than it was. It has been treated with sulphur and bicarbonate of soda—five grains of each in a powder three times a day, and subsequently with cod-liver oil. No local application has as yet been applied.

I have seen one other case like this, but with less pigmentation, but have mislaid my notes of it; and a somewhat similar case, as I believe, occurred to me in 1875, but I have not noted the presence or absence of urticaria in the case. It was in a girl of nine years, and in whom a peculiar mottling of the skin had been noticed almost from birth. The skin of the trunk was discoloured by irregular pale-brown patches of the colour of tinea versicolor, and on close inspection these were seen to be composed of deeply pigmented, rather prominent papules. A later note states that the papules are now whitish upon a dark pigmented ground, and are apparently in the substance of the skin rather than raised above it; the papules being no longer prominent, but blunted.

There has been some difference of opinion expressed as to the nature of these cases (I only refer to the first of my two, as the second admits of doubt)—that is to say, if those recorded by Dr. Tilbury Fox, Mr. Baker and Dr. Thin, Mr. Hutchinson, Dr. Sangster, and Dr. Thomas Barlow, and this, are all of the same kind. Dr. Pye Smith and Dr. Frederick Taylor have seen my case, and agree with me in regarding it as a similar affection to that shown by Dr. Barlow at the Clinical Society on December 13. Dr. Barlow's case, in turn, was, I believe, considered like the others previously exhibited or recorded; so that any conclusions to be drawn from this case bear in a measure upon all.

Now, there seems to me to be no doubt of this: firstly, that the disease in this particular case is an urticaria at its commencement; secondly, that the pigmentation follows the urticaria; and thirdly, that it ensues so rapidly after the appearance of the wheal as to make it probable that there is some peculiar tendency in this child to the deposition of pigment upon slight irritation of the skin. The ultimate changes are best designated, I think, by the term "urticaria perstans," the persistent elevations being considered as organised or semi-organised wheals. What the origin of the urticaria may have been, I do not know, but it is probable that fleas, as Mr. Hutchinson thinks, may have had something to do with it. But I think that, as with the allied disease, lichen urticatus, or lichen prurigo, there are some cases which can be attributed to no such cause; so here the disease is due to some constitutional peculiarity—if I may use the term in a wide sense—on the part of the patient, over and above any local irritation; a sequence similar to that observed in the case of varicella and vaccinia prurigo. Cod-liver oil has done this child some good. Perhaps this fact—though I know of no other—would support Dr. Thin's hypothesis, from observations of the minute changes in the skin in Mr. Baker's case, that the disease is a form of lupus; but the clinical aspect of the cases I have seen is, it seems to me, entirely opposed to any such view.

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REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CANCER OF CÆCUM—PERFORATION—THROMBOSIS OF COMMON AND SUPERFICIAL FEMORAL AND POPLITEAL VESSELS—GANGRENE OF LEG.

(Under the care of Dr. SIEVEKING.)

DINAH E., married, aged sixty-three years, was admitted on October 4, 1878. She stated that she had always enjoyed pretty fair health, but had never been very strong. She had had three children; one died of scarlet fever, the two others died soon after birth. About five years before admission she ruptured herself in the right groin through lifting a heavy weight, and had worn a truss from that time. Since then she had suffered from sickness more or less, and had to be careful about her diet. For twelve months preceding her admission to the hospital she had suffered from pains in the stomach; she felt as if her intestines were being "drawn up into knots." She was unable to keep her food down, and her vomit was sometimes black and very bitter. For about three months she had been getting worse. She had great pain in the abdomen, more especially in both inguinal regions; she was losing flesh; was much troubled by sickness, and her motions were very offensive and black. Some discharge also seemed to have come from the rectum, consisting of blood and pus.

On admission, patient was somewhat emaciated. The arcus senilis was distinctly visible in both eyes; the tongue was thickly coated with yellowish-white fur, not extending quite to the margins. The heart and lungs were normal; the liver was somewhat enlarged, and pressure over its left margin caused slight feelings of nausea. In the right groin, above Poupart's ligament, and in the situation of the cæcum, an irregular growth, tender on pressure, and about the size of a large-sized hen's egg, could be felt. There was also a femoral hernia on that side. The temperature was normal; pulse 136, weak and regular; bowels regular, and urine normal. Patient slept badly, and had rather profuse perspiration. She had frequent attacks of pyrosis, the fluid ejected being clear. Considerable prostration existed. The following notes show the further progress of the case:—

October 8.—Patient has been taking milk and soda-water, which does not seem to have agreed with her. Liebig's infant food was ordered, and since the change there has been no sickness. The bowels have been opened twice to-day. Perspiration is still profuse.

11th.—She has still bad nights. The pain in the abdomen is worse, and she complains of headache.

15th.—The stomach is becoming rather distended. The lump in the right groin has increased in size. She says her stomach in the night-time seems to get drawn up into knots. Her cough is troublesome.

18th.—She says she has been in great pain during the last two days. She is suffering from slight bronchitis. The bowels are open, but have a tendency to costiveness, the motions being very hard. Temperature slightly subnormal.

22nd.—The growth is very tender. She continues to have bad nights and perspires freely. The bowels are open.

28th.—Patient still complains of pain, but now it is under the right ribs, but she says she feels a great deal easier. She has had diarrhœa for the last two days, her bowels having been open about twenty times in twenty-four hours; the motions are very offensive. The face and cheeks are very much flushed this morning. Temperature 99·8°; pulse 120, weak and easily compressible.

November 1.—Bronchitic symptoms have been rather troublesome. The diarrhœa continues, and the stools are very offensive. She has pain of a somewhat colicky nature in the abdomen.

12th.—Bowels are still rather relaxed. Morphia injections have been used at night to relieve the pain. There is no change in general symptoms.

19th.—Diarrhœa has again been troublesome. Patient is very low in spirits. Her appearance is cachectic. Temperature normal.

22nd.—The diarrhœa still continues. Patient complains of more pain now in the abdomen.

27th.—To-day the tumour suddenly became much smaller, and the temperature rose in the evening from about normal to 100·6°. She complains somewhat of pain, and her knees were drawn up and her abdomen was very tender.

28th.—Patient is much better. She has had an enema of starch and opium for the diarrhœa, which is still troublesome. There is dulness down the whole right side of the abdomen and tympanites on the left side. There is pain now in the left side on pressure.

29th.—There has been no diarrhœa since the enema was administered yesterday. She is still low, but seems better on the whole. This morning she vomited some yellowish-looking fluid. The urine is acid (specific gravity 1025), and contains lithic acid crystals and some granular and hyaline casts.

30th.—Yesterday evening patient complained of intense pain in the left leg, which assumed a white, waxy appearance from the knee to and involving the foot. This changed to a mahogany colour subsequently.

December 2.—She is unable to bend the left leg, which is now of a purplish-red colour along the shin-bone.

6th.—The femoral artery can be felt pulsating. Sloughing has commenced below the knee. Sensation of the leg is impaired.

10th.—In place of the circumscribed tumour in the abdomen, an induration can be felt which has no distinct outline. The bowels are open. There is a patch of discoloration on the outer side of the left leg, about four inches long by three inches broad. The extremity is quite cold; sensation is absent. No pulsation can be felt below the femoral artery.

13th.—There is now another slough on the inner side of the left foot, which is of a dark maroon colour. Patient cannot bear the left foot to be touched.

17th.—There is now no sensation below the upper third of left leg, and below this the limb is quite cold and mummified. The right abdominal region is much softer, and the tumour there much less.

Patient sank and died on December 21. The post-mortem examination (of which notes are appended) showed that the gangrene was caused by thrombosis of the femoral and popliteal vessels. The subsidence of the tumour, noticed on November 27, was explained by the rupture of the gut. It was somewhat remarkable, that accompanying this there were no symptoms of collapse, but that on the following day patient was able to express herself as feeling, if anything, better than she had previously been. Little reference has here been made to treatment, which was of course purely of a palliative nature.

Post-mortem Examination (December 23).—There was found to be thrombosis of the common and superficial femoral vessels extending for about three inches; there was a similar condition of the popliteal artery and vein, the intervening parts of the femoral vessels being free. On opening the abdomen there was found to be some peritonitis in the iliac fossæ and in the pelvis. The coils of the intestines were adherent to each other by bands of organised lymph. At the posterior part of the cæcum there was a large ragged perforation, evidently the starting-point of the recent peritonitis. A *cul-de-sac* the size of a large walnut led from the posterior part of the cæcum; its walls were gangrenous from the pressure of a new growth. This new growth involved the cæcum and part of the ascending colon, and was evidently of a cancerous nature. Its surfaces were irregular and sloughing; the ileo-cæcal valve seemed quite destroyed by it, and in that situation there was a ring of cancerous tissue which so encroached on the aperture that the tip of the little finger could barely be passed through. There were no secondary growths in any of the viscera, but the left pelvic glands were somewhat infiltrated. The liver was enlarged and fatty. There were hæmorrhagic infarcts in the spleen and kidneys. The lungs were œdematous and congested throughout; in the left apex there were traces of old cavities with a large amount of fibroid thickening round them.

HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS.

NOTES OF TREATMENT—JANUARY, 1879.

The treatment of diseases of the skin is so often unsatisfactory that the following rough notes of the practice of this hospital may be interesting to those who have not an opportunity of attending a special institution. The cases described are under the care of Mr. Hutchinson and Mr. Waren Tay.

Lupus Erythematosus.—Patient was a woman of about sixty-nine years of age. Her face was affected on both sides, and there had also been patches of psoriasis about the elbows. She had been attending the hospital since 1876, but the disease remained obstinate. The patient believes that the disease began after exposure to a hot sun in July, 1875. She seemed fairly nourished and stout. The erythematous and non-ulcerative characters of the lupus were well marked. The present treatment consists of the internal administration of quinine and arsenic, and the local application of a lotion of glycerine and liquor carbo detergens.

Lupus Vulgaris.—There was one case of this disease. A girl aged about nine years, who was an in-patient, had lupus of an ulcerative character attacking both ala of the nose, and extending in the form of scrofulous ulceration to each cheek. The patient was markedly strumous. In addition to constitutional treatment, the actual cautery (Paquelin's) was to-day applied to the diseased surface.

Pustular Sycosis.—There was one case of this disease in a somewhat unhealthy-looking man. The pustules were numerous about the cheeks and chin. The local treatment ordered was the application of carbolic acid lotion, and of white precipitate ointment.

Eczema of the Leg; Chronic Ulcers of the Leg.—There were several cases, mostly of a chronic nature, of eczema. The treatment generally adopted was the application of a lotion of liquor carbo detergens (about a drachm to half a pint of water), and of the unguentum creasoti—the former ordered to be kept applied during the day, the latter to be used at night. This form of treatment is very generally successful, so that Martin's pure rubber bandages (which have been recommended in such cases) are not used here. Mr. Hutchinson believes that the confinement of the secretion of the affected parts by these bandages might be useful in cases of old standing eczema where there is great thickening of the skin; but that its use in cases which yield readily to other treatment is not called for. Martin's bandages have been used with great benefit in several cases of chronic ulcers of the leg. They seem to be especially useful when the ulcers are large, flabby, and thick-edged; and, as Dr. Martin stated, they enable patients who are unable to desist from their employment to walk about with comfort and without injury. In syphilitic ulcers the local treatment adopted in many cases is the application of the red mercury ointment of the Pharmacopœia.

Porrigo Capitis.—A child was brought to hospital with the entire scalp covered with a dense porriginous eruption. This

disease, which might be called porriginous eczema, was generally associated, Mr. Hutchinson remarked, with pediculi, as in that case. The glands at the nape of the neck were enlarged, which was not so in eczema. The secretion from the part was contagious, and the main treatment consisted of entirely getting rid of all incrustation of matter by poulticing and washing and attending strictly to cleanliness, and the use of an ointment of ammonio-chloride of mercury. With care this disease should always be got rid of in a week or two.

Psoriasis.—Among several cases of this disease one was distinguished by the smallness of the patches. These occurred about the face and neck, and were bright red in colour, and only slightly scaly. The parts itched and smarted a good deal. This was in a somewhat acute stage, and the local application ordered consisted of what is called "compound petroleum ointment," and which contains, with other ingredients, chrysophanic acid (ten or five grains to the ounce). This application is somewhat irritating to the skin, and is only applicable where there is no acute inflammation. Arsenic (liquor sodæ rsenitis) was also administered internally.

Lichen Planus.—Two cases of this disease presented themselves. One was about the legs of a middle-aged man; the parts were very irritable, but had passed out of the papular stage. The other case was in an old woman whose arms were affected; there, also, the disease was dying away, but in both the pigmentation was pretty extensive. These cases were treated with arsenic internally, and tar externally, to which they almost invariably yield.

Serpiginous Eruption about Face (Syphilitic).—A young man, about twenty-one years of age, presented himself complaining of a swelling in his throat. He was very anæmic, and all over the face were patches of a copper-coloured eruption, not unlike psoriasis in parts, but traced out in lines about a twelfth of an inch wide. These were arranged in various patterns, some being almost circular, some dumb-bell-shaped, etc. The tongue was ulcerated about its middle and back parts, and there were ulcers about the tonsils. Patient thought he had contracted syphilis in France last September. A chancre had appeared on his penis about seven weeks ago, and about Christmas his face became affected. He thought his tongue had been bad for about five or six weeks. This seemed to be a case of secondary symptoms following very soon on a primary sore—whether this was dependent on the nature of the infection or on the constitution of the patient was a matter of doubt. The treatment was antisyphilitic.

Pityriasis Versicolor.—Chrysophanic acid ointment (five grains to the ounce) has been used with perfect success in the treatment of several cases of this disorder. A lotion of sulphite of soda has hitherto been the general application ordered; and, although the chrysophanic acid is effectual, it seems to offer no advantage over the sulphurous acid.

Ringworm of the Scalp.—Two children, brother and sister, attended. They had ringworm about last Easter, which remained obstinate under other treatment, but had become well under the application of chrysophanic acid ointment. The heads were ordered to be well washed several times a week with soft soap and warm water, and the hair to be kept closely cropped. Another case was associated with kerion, but was also doing well.

STUDENTS AT THE BERLIN UNIVERSITY IN 1879.—The official calendar of this University shows a most remarkable increase in the numbers of the students of all the faculties during the present session, and that notwithstanding that there has also been an increase during the last three years. The entire number of matriculated students amounts to 3213, against 2569 of the last summer session, and 2834 of the winter session of 1877-78. There are 176 theological students, 1211 juridical, 433 medical, and 1493 students of philosophy and natural science. To the medical students have to be added 190 students of the military academies, making a total of 623 medical students. In the last summer session the total was 534, and in the winter session of 1877-78 it was 563. Besides the matriculated students, those of many other academies are allowed to attend the lectures, as are 286 non-matriculated students, making a grand total of 5187 auditors.—*Berliner Klin. Woch.*, Jan. 6.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 1, 1879.

THE PLAGUE.

IT may, we think, be fairly said that, up to the present time, we have no really reliable information as to the great epidemic outburst of disease which has occurred in South-Eastern Russia. Details regarding it are, no doubt, in existence; but any that have yet been made public are, for the most part, totally unworthy of credit. We can hardly be said as yet to be, in point of fact, assured that the malady in question is the real and terrible Oriental plague, or other than an unusually fatal outbreak of typhus fever (which is never absent from Russia), even though we now have the authority of such a distinguished physician as Professor Botkin of St. Petersburg in favour of the former belief. Not that there is such an essential difference between the two; for, by all reliable accounts obtainable, the plague itself had most of the characteristics of an exceedingly acute typhus, coupled with complete and profound alteration of the blood, and the development of buboes in the axillæ and groins.

It is plain, however, that this Russian outbreak has sufficed to alarm not only the Russians themselves, but also their nearest neighbours, who are now eagerly taking measures of precaution against the inroads of the epidemic. That the malady is exceedingly deadly is plain, from the facts which have been allowed to escape, though we may feel justified in doubting whether that total destruction which has been described in at least one public print has fallen on the unhappy inhabitants of the infected districts. Under the circumstances, and having, as we have already said, nothing before us to which we can give absolute credence, it may not be amiss to lay before our readers some of the facts observed in former epidemics, which may be deserving of their attention.

It is a curious fact that the best accounts we have received of the various outbreaks of the plague have been given and handed down to us by lay writers. Hence it is that many of

the points which interest physicians have not been recorded, whilst the moral effects have been dealt with at length. Thucydides' account of the plague at Athens is well known, and less widely that of the plague at Constantinople by Kantakusenos. Boccaccio gives a vivid account of it in his "Decameron," itself the immediate offspring of this outbreak at Florence. Whilst if we turn to writers whose works partake more or less of the nature of romance, though founded on fact, there come foremost Defoe's "History of the Plague in London," and the well-known Italian romance "I promessi Sposi."

But from all these various sources which are at our command we obtain a fairly uniform picture of a disease fearfully fatal in its effects, devastating vast tracts of country, and in these and certain other respects—especially its tendency to follow the routes adopted by commercial or other forms of intercourse—closely resembling the more modern cholera, though differing totally in all other essentials from the more modern disease. Both, however, originated in the East, fostered there by the unhealthy surroundings of teeming populations; and both seemed best to thrive in the midst of the general condition of filth and degradation produced by utter ignorance of anything like a notion of what we now call sanitation, and the misery of almost constant warfare on scales of all sizes, from the tiniest to the most gigantic.

Of all the outbreaks of this formidable malady, that which occurred in the fourteenth century, and has ever since been known as the "Black Death" or the "Great Mortality," has left behind it the most dreadful memory; though in this country that which occurred just before the Great Fire of London, in the reign of Charles II., has been a formidable rival in this unpleasant kind of fame. In all outbreaks of the plague, the appearance of black spots on the chest, arms, and thighs, together with the buboes in the groins and armpits, have been looked upon as the test-symptoms of the malady. But in that fatal outbreak known as the "black death," when the disease first appeared there was hardly time for some of these signs to develope themselves. There seemed to be such a profound alteration of the blood throughout the whole body that the entire surface was speedily covered with black or purple wheals and blotches, becoming in the worst cases confluent, and giving rise to the popular name for the malady. Then, too, in many cases there were discharges from various organs of this decomposed blood—especially the lungs were affected; the breath of the victims became so fearfully fetid as to be hardly bearable, and was reputed to be the main channel for propagating the disease. Such patients died very quickly; but when the first force of the disease had spent itself, though the black marks still were plentifully found, and only too plainly indicated the probable fate of the unhappy sufferer, other symptoms asserted an increasing importance. Thus, both in the later stages of the Great Mortality and in the Great Plague of London, though the black spots are referred to—in London they were called the *tokens*,—the development of buboes is specially mentioned. These were found chiefly in the groins and armpits, but similar swellings might exist elsewhere, and in the worst cases carbuncular inflammations were found in various parts of the body. These swellings were intensely painful, in some instances driving people frantic, even impelling them to suicide. It is also noted that when these swellings, or "imposthumes" as it was usual to call them, broke and discharged, the patient commonly got well. During the height of the various outbreaks such an event as recovery after the breaking out of these spots was rare: the appearance of the black marks was held as the invariable precursor and immediate sign of death.

Are we to look for such manifestations at the present day? It is hardly likely; but whilst we are surrounded by such improved sanitary conditions, we must not forget the lessons which the cholera taught us—lessons which have found fruit in our present improved, but far from perfect, sanitary arrangements. Especially we must not forget the greatly improved means of intercommunication. The plague would no longer advance with the slow, impressive manner of an army on the march, but might come by "leaps and bounds," following the course of railways and steamboats. Though at the present day anything like a perfect quarantine is for this country out of the question, we need not shut our eyes to the possibility of this pestilence being introduced among us, or fail to take in time prompt steps to arrest it by isolation or otherwise should it make its appearance at any spot.

THE DETECTION OF PYLORIC INSUFFICIENCY.

A METHOD of diagnosing alterations in the structure of the pyloric orifice of the stomach, which render it incapable of complete closure, is described by Professor Ebstein, of Göttingen, in No. 155 of Volkmann's *Sammlung Klinischer Vorträge*.(a) The method is not new in principle but new in its diagnostic application, and it consists in artificially distending the stomach with carbonic acid gas. If the pylorus is able to contract naturally, this gas simply renders the contours of the stomach clearly visible through the abdominal wall, while on percussion a markedly tympanitic note is produced over the whole area of the stomach, which clearly defines it from the neighbouring intestinal tract. Supposing, however, the pylorus is incapable of complete closure, almost immediately after the stomach becomes dilated, the gas makes its way into the duodenum and thence into the bowel, giving rise to acute tympanites. The latter varies in degree in various sections of the intestine, while the distension of the gastric walls remains but slight, so that it is not always possible to mark out the stomach, either by inspection or percussion. Gaseous distension has been used by Dr. S. Fenwick in England, and by Frerichs and Heinrich Wagner in Germany, with the view of determining the boundaries of the stomach, but Professor Ebstein appears to be the first who has utilised it for the purpose above mentioned. Opinions have been rather divided as to the normal condition of pyloric contraction during digestion, and Professor Ebstein has himself undertaken some interesting experiments on animals, with a view to acquire some accurate knowledge on the subject Four dogs and a cat were experimented on, and all the animals were narcotised and killed at the end of the experiment by the injection of chloroform into the trachea. The plan adopted was as follows:—In three cases a solution of tartaric acid and then one of bicarbonate of soda was introduced into the stomach, and the upper end of the catheter was closed by a clamp. In the two others pure carbonic acid was forced into the stomach by the pressure of a short column of water. In all the cases one arm of a bent glass tube was tied into the commencement of the small intestine, and the other carried to the bottom of a vessel containing baryta water. In no case did the least cloudiness occur in this reagent so as to indicate the passage of any trace of gas through the pylorus. Care was also taken to make certain that there was no abrupt bend in the intestine to confine the gas, and that the duodenal catheter was quite permeable. The contraction of the pyloric muscles continued even until after death. In one case an incision through the longitudinal and circular fibres of the pylorus was made while the animal still lived, and it was not till the innermost circular fibres were divided that the stomach collapsed and the gas escaped. Professor

(a) "Ueber die Nichtschlussfähigkeit des Pylorus (*Incontinentia Pylori*)."

Ebstein refrains from drawing too strict a conclusion as to the contraction of the pylorus in man from these experiments on the lower animals, but such clinical observations as he has as yet collected are all in favour of the view that a healthy human pylorus is able to prevent all escape of gas into the duodenum. In examining a patient by this method a teaspoonful of tartaric acid is given in a little lukewarm water, and this is immediately followed by a large teaspoonful of bicarbonate of soda similarly dissolved. In two cases of cancer of the stomach (and it is mainly with this affection that the symptom of pyloric insufficiency is combined), the diagnosis made *intra vitam* by this method was completely confirmed. In one case the cancerous mass gave rise to a semicircular chink large enough to allow the forefinger to pass through it; and in the other a large ulcer, which extended deep into the left lobe of the liver, had destroyed as much of the pyloric ring as would admit two fingers. In five out of six other cases of pyloric insufficiency, without necropsy, the other clinical signs enabled an almost certain diagnosis of cancer of the stomach to be made. In the sixth case there were strong grounds for a similar diagnosis, as neither ulcer of the stomach nor any other organic changes, which in the absence of cancer would explain the great emaciation, vomiting, and severe dyspeptic symptoms, could be detected. Professor Ebstein, however, distinctly admits that the existence of incomplete closure of the pylorus is not necessarily connected with cancerous changes, or that we are as yet able to draw from this symptom an accurate conclusion as to the form of disease. A simple ulcer may impair the function of the pyloric muscles, and very probably pyloric insufficiency may, in some cases, have a nervous origin; for example, in hysteria, where the tympanites of the intestine can then be explained by the immediate passage of the air which such patients swallow, from the stomach into the bowel. The majority of cases will, however, probably be cancerous; and further, if in a given instance the diagnosis of cancer of the stomach can be definitely made, and the carbonic acid test reveals pyloric insufficiency, Professor Ebstein believes (and probably no greater authority on cancer of the stomach exists) that even if vomiting is absent the seat of the disease may, with great probability, be assigned to the pylorus. In conclusion, he points out that this method, assisted by careful post-mortem examination of the pyloric region, may help to clear up some of the obscurer symptoms of diseases of the stomach. It may be used without fear either of distressing the patient or of enlightening him as to the character of his malady.

Thus says Professor Ebstein: but we have some hesitation in accepting this dictum. The intense and overpowering distress sometimes occasioned by over-distension of the stomach with air or gas of any kind is unfortunately too well known to many. Not only are the movements of the diaphragm and that of respiration interfered with, but the movements of the heart, both directly and through the cœliac plexus, are also impeded. Such a degree of oppression is thus produced, that it is not an uncommon factor in the immediate cause of death in certain forms of disease.

THE CLIMATE OF CYPRUS.

The *Journal of the Scottish Meteorological Society* for the half-year ending June 30 last contains some interesting observations on the climate of Cyprus made by Thomas B. Sandwith, Esq., her Majesty's Vice-Consul from 1866 to 1870. The mean annual temperature of the island is 66·6°; the coldest month is February, with a mean temperature of 52·8°, which is all but identical with the temperature of London during May. The hottest month is August, with a mean temperature of 81·5°, being closely approximate to the summer temperature of Algiers, Alexandria, Athens, and Constantinople. The mean temperature for the six months from November to April varies between 52·8° and 60·9°; and since between these mean temperatures deaths from diseases of the respiratory organs, and from bowel complaints, are either at a minimum or are comparatively small, it may safely be stated that, so far as atmospheric temperature is concerned, the climate of Cyprus is exceptionally good during these months. It is probable, therefore, that several situations round the coasts of Cyprus will be found with winter climates so good, and for a large class of invalids so safe, that they will take rank among the best sanatoria of the Mediterranean. On the other hand, the temperature of the six months from May to October is very high, being from 68·1° to 81·5°. This high summer temperature Cyprus has in common with the coasts of Algeria and the south coasts of Italy, Greece, and Asia Minor, in all which regions a still higher temperature prevails on advancing from the coast inland. The differences between the highest and lowest observed temperatures of the four years, viz., about 30°, show that the climate of the island has a character decidedly insular, and therefore very equable. The mean annual rainfall is 12·80 inches, nearly the whole of which falls during the cool season from November to April; since the rain which falls in May and September is trifling in amount, and of rare occurrence, it may be considered that there are practically five rainless months in the year in Cyprus. The state of the barometer and the winds connect the meteorology of Cyprus with that of Central Asia, where atmospheric pressure is extraordinarily high in winter and low in summer. In summer the prevailing westerly winds of the Levant are only part of the extensive atmospheric current which sets in at this season towards the region of low atmospheric pressure in Asia, and the great breadth of sea swept by this atmospheric current before reaching Cyprus doubtless mitigates in some degree the heat of summer. Since, owing to their exposure to the cold dry winds of the mistral and to other causes, the winter climates of North Italy, South France, Spain, and Algiers are characterised by the occasional occurrence of lower temperatures, as well as by a more fluctuating temperature generally than that of Cyprus, it would seem to follow that Cyprus presents superior attractions for the establishment of winter sanatoria. It is to be noted, also, that at this season the rainfall is moderate, being not much different in amount from that of London; but it falls much seldomer, three days out of every four being without any rain whatever. Though there is no definite information regarding the summer climates of the higher regions of Cyprus, there can be no doubt, if we may reason from the meteorology of the Caucasus, and from remarks scattered through Mr. Sandwith's meteorological journals, that in addition to a lower temperature, due simply to a greater height, showers of rain, with and without thunder, are not of unfrequent occurrence among the mountains of Cyprus in summer. There are, it is scarcely necessary to say, other conditions affecting the health of a country than merely atmospheric conditions; these, in a country like Cyprus, are the malarious and other noxious elements which find their way into the atmosphere from lands once cultivated, but now allowed to lie uncultivated, and from lands where the drainage is more or less defective. Much may be done in mitigation of the effects of the summer heat by the establishment of sanatoria among the mountains, and by the carrying through of agricultural improvements and engineering works. Mr. Sandwith's observations may be said to contradict much which has been written against our most recent acquisition; and they will have some weight with those who judge impartially, since they were written at a time when politics had not raised any vexed question as to the salubrity of the island.

THE WEEK.

TOPICS OF THE DAY.

At a meeting of the Council of the Hospital Sunday Fund, held at the Mansion House last week, under the presidency of Sir Sydney Waterlow, M.P., the Secretary reported the removal of the offices from the Mansion House to No. 1, Queen Victoria-street, E.C. It was further resolved, at the instance of Dr. Glover, that it should be referred to a committee to consider and report to what extent, if any, the information to be obtained by the Distribution Committee from the various participating charities should be tabulated and printed. And as the Southwark Wesleyan Circuit has hitherto held aloof from the movement, it was considered desirable to communicate with the President of the Wesleyan Conference, with a view to that Circuit being included in future collections. The committee of the Fund and the secretaries were re-appointed before the meeting finally separated.

The following memorial has been addressed to the Home Secretary by a conference of delegates from the various district boards of works and vestries of the metropolis appointed to consider the question of providing hospitals for the non-pauper classes:—"Your memorialists, having given the matter full consideration, have come to the conclusion that the most practical way of meeting and overcoming the difficulties in providing hospital accommodation for persons not in receipt of parochial relief would be for the Metropolitan Asylums Board, who already have all the necessary staff and appliances, to be legally empowered to receive into their hospitals all persons who may be suffering from infectious disease, and whom the sanitary authorities may deem it necessary to have removed from their homes, upon their being sent to such hospitals by the order of their medical officer of health; and that the sanitary authorities should pay the Metropolitan Asylums Board for all patients so sent to the hospital. That, inasmuch as the Metropolitan Asylums Board were able to receive into their hospitals all the small-pox patients sent during the epidemic of 1877-78, and also during the more serious outbreak of 1871-72, your memorialists are of opinion that sufficient hospital accommodation exists for both classes of persons who it is desirable should be removed, whether in actual receipt of parochial relief or not; and further, that your memorialists have reason to believe that the managers of the Metropolitan Asylums Board are quite willing that both classes of persons should be so received. That your memorialists are also of opinion that persons not in receipt of parochial relief, who are removed to hospitals at the instance of the sanitary authorities, should, if such authorities require it, be liable to repay to them the cost, etc., which they may incur in and about the removal to, and their maintenance in the hospital. That your memorialists crave your attention to the matters set forth in this memorial, and hope that such steps may be taken as are necessary for the amendment of the law, so that the Metropolitan Asylums Board may be empowered to receive into their hospitals all persons suffering from small-pox, or from any other infectious disease which the medical officers of health appointed by the several sanitary authorities may deem it expedient or necessary to have removed from their own homes, notwithstanding that they are not in receipt of parochial relief."

The Thames valley drainage question threatens to rival the German "story without an end." Only last week another large public meeting was held at Kingston to consider the proposal of the Board to have a sewage farm at West Moulsey. The Rev. J. Dawes presided, and proceedings were opened with a speech from Mr. Gould, J.P., in condemnation of the scheme, after which a memorial to the Local Government Board was adopted, pointing out that the land chosen was subject to frequent inundations by the rivers Mole and Ember. The Sewage Board having been established for the purpose of carrying out a sanitary measure, the memorialists fail to see why it should have selected a site so eminently unfitted for the purpose of sewage treatment in the following, amongst other respects, viz., that, being the receptacle of the rainfall of the Surrey hills, it was subject to floods of a very sudden and impetuous character, and was, when free from such visitations, wet and water-logged; that it was in the centre of valuable residential property which would be most injuriously affected by it, and it could not fail to be a source of danger to the health of all persons thus unexpectedly brought within its influence; that it was midway between the palaces of Claremont and Hampton Court, and the escape of the effluent water was to be into the Thames just opposite the latter; that the area was inadequate to the necessities of an increasing population, as it was incapable of enlargement. The memorialists further consider that in going to Parliament in the first instance, without having previously applied to the Local Government Board for their approval, there was an attempted denial of justice, especially as the opponents of the measure would be involved in ruinous expenses by a Parliamentary opposition, which might have been avoided had the usual course of going first to the Local Government Board been followed. The memorialists therefore prayed the upper Board to aid them in obtaining a proper inquiry into the disposal of the sewage of the Lower Thames valley. Without hazarding an opinion as to the fitness or otherwise of the scheme in question, it will be at once evident that if every decision arrived at is to be challenged by the different sub-committees, the drainage of the Thames valley will never be completed.

The *Times* has only lately noticed the statement issued by the members of the board of examiners of the candidates for the Army Medical Department, with reference to the report of the War Office Committee on the state of that Department. The Board deny that the examinations do, or are intended to, search into the most minute details of medicine, surgery, and physiology; and they do not agree with the report that competition has ceased on account of the paucity of entries, but, on the contrary, maintain that it is as active with a small as with a large number; and they notice, moreover, that the paucity of entries has relation only to the Army Medical Department and to the Naval Service for reasons wholly irrespective of the actual examination. Our readers will remember that we reported and commented on the statement of the Board of Examiners in our columns on December 21 last.

The Leicester Board of Guardians recently adopted the rather singular course of calling upon their Medical Officer, Dr. Clarke, to attend their meeting to explain his conduct in having "punished" a patient in the infirmary by taking away his extra diet. Dr. Clarke, in explanation, assured the Board that he had no intention of inflicting "punishment" in this case, but the patient, a notoriously refractory subject, had used impertinent and disgusting language to him, and as upon a previous occasion a reduced scale of diet had produced a beneficial effect, he (Dr. Clarke) determined to have recourse to it again. A motion was subsequently passed, by eighteen votes to six, exonerating Dr. Clarke from all blame, and that gentleman reminded the Board that unless he had their support it would be perfectly impossible for him to carry on his duties in a proper and efficient manner.

It will interest some of our readers to compare the following vital statistics, issued in New York, with our own:—In that city during the year 1878 there were 27,005 deaths,

being 802 more than in 1877. The greatest number of deaths from any one disease was from phthisis—viz., 4477; and the next highest number, 2964, was from diarrhœa. There were only 2 deaths from small-pox during the year, the smallest number reported for any year since 1824—a result which is attributed to the activity of the vaccinating corps for several years past. There were 2416 deaths from diseases of the brain and nervous system, 1098 from heart diseases, 1155 from Bright's disease and nephritis. Apoplexy caused 445 deaths, 52 succumbed from the direct effects of solar heat, and there were 137 suicides. The deaths included 7090 under one year of age, 12,354 under five, and 1600 at ages above seventy years. Only 25,729 births were recorded, and 2292 children were born dead. In the course of the year 20 mothers gave birth to their fourteenth child, 10 to their fifteenth, 4 to their sixteenth, and 3 to their seventeenth child. Two mothers at fifteen gave birth to their second child, and 442 mothers over fifty bore children.

The fortnightly returns of the hospitals of the Metropolitan Asylums Board, presented last Saturday, showed that in the Hampstead Asylum 6 patients had been admitted during the period, 5 had been discharged, and 19 remained, leaving 231 beds available. At the Fulham Asylum 13 had been admitted, 4 had died, and 5 had been discharged, leaving 47 under treatment, and 193 beds available. At Deptford Asylum during the fortnight 131 patients had been admitted, of whom 15 died, 93 had been discharged, leaving 247 under treatment, and 83 empty beds. These returns show 313 patients under treatment, against 260 at the last report. The report of the Stockwell Fever Hospital showed that during the fortnight 24 patients had been admitted, 5 had died, 38 had been discharged, leaving 97 patients under treatment, and 115 beds available. At Homerton 31 patients were admitted, 4 died, and 18 were discharged, leaving 131 under treatment. The total number of fever patients at the two asylums (228) was 10 less than during the preceding fortnight.

It was stated at the North Union meeting, Dublin, last week, that small-pox was still extending in the city. During the week there had been an increase of eight cases; the hospitals were crowded with acute and convalescent cases, and there was now practically no accommodation for more.

THE METROPOLITAN WATER-SUPPLY FOR DECEMBER LAST.

From the monthly report of the Water Examiner for the Metropolis for December last we extract the following information:—The state of the water in the Thames at Hampton, Molesey, and Surbiton was indifferent and turbid from the 1st of that month to the 7th; it then became clear, and remained in a good condition until the 26th, when it again became turbid, and continued in a bad state during the rest of the month. The water in the river Lea was fairly good during the greater part of December. Amongst the doings of the various companies it is noted that the Lambeth Company is proceeding with the construction of additional filters at Ditton, and had contracted to institute an experimental boring at that place with the object of testing the depth of the chalk basin, and the probability of procuring an auxiliary supply of water therefrom. Should the result of this boring prove favourable, it will no doubt be followed by operations to procure water in larger quantities. The Lambeth Company have turned on a constant supply of water throughout a large portion of their district, and will extend the system by degrees until their whole district is thus provided for. They complain, however, that the public does not in all instances co-operate with them in carrying out this improvement; and whilst some inhabitants are satisfied that constant supply is a great boon, others object to the preparation of their fittings for it. Up to the present time about 4200 houses are on constant supply in this Company's district.

THE STAMFORD AND RUTLAND INFIRMARY.

Dr. Newman, F.R.C.S. Eng., one of the Surgeons to the Stamford Infirmary, has published a short history of that institution, which was established in the year 1828. The object Dr. Newman has had in view is to show how the early purpose of the founder has flourished into a permanent existence for good. The Infirmary owes its existence to Mr. Henry Fryer, a well-known surgeon, who died in 1828 at St. Martin's, Stamford, leaving the residue of his personal property (£7477) to be appropriated to the purposes of an infirmary, on the condition that within five years of his death such an institution should be established either in the town of Stamford or in the county of Rutland. The close called the White Friars in Stamford was eventually selected as the most eligible site, and the necessary land was kindly transferred by Lord Exeter to a committee, at a price much below its estimated value, the building being opened for the reception of twelve in-patients on August 5, 1828. From that date the history of the Stamford, Rutland, and General Infirmary is brought down step by step to the present time; all details of enlargements and improvements, with any shortcomings found to exist, being faithfully given. The Infirmary would seem to owe a great deal to the profession, for it is recorded that, in the year 1875, a bequest of £3552 was received from the executors of Mr. Arthur Clay, surgeon, a member of an old Stamford family, who died in Japan. Dr. Newman's small work, which is very carefully compiled, cannot fail to be locally interesting.

THE HAMPSTEAD HOSPITAL CASE.

On Tuesday last, in the Exchequer Division of the High Court of Justice, Baron Pollock delivered judgment in the case of Sir Rowland Hill and others *v.* the Metropolitan Asylums District Board, the arguments upon which had occupied the Court for many days on previous occasions. After reviewing, at considerable length, the evidence which had been given on both sides, and minutely examining and comparing the different sections of the Acts of Parliament bearing upon the case, his Lordship stated that the conclusion at which he had arrived was, that the plaintiffs were entitled to have a verdict entered for them, and also a judgment for costs. With respect to the injunction asked for, his Lordship proposed to follow the course which was adopted by the Lord Chancellor in the case of the Attorney-General *v.* the Colney Hatch Lunatic Asylum. He therefore granted an injunction to restrain the defendants, their servants or agents, from carrying on the Asylum so as to be a nuisance to all or any of the plaintiffs; and issue of the injunction was suspended for three months, with liberty to either side to apply.

THE INTRAVENOUS INJECTION OF MILK.

An interesting case of the intravenous injection of milk occurred in Dublin last week, the full details of which will be, no doubt, brought before the profession before long. The following are the more prominent circumstances connected with the case:—The patient, a young man about thirty years of age, had typhoid fever in November last. After all febrile symptoms were past, he continued in a state of extreme exhaustion. Several of the leading physicians in Dublin saw the patient (with Dr. Austin Meldon, his attendant), among others Dr. Lyons, who, finding all ordinary means to fail, suggested transfusion as a last hope. Dr. Robert McDonnell was asked by Dr. Meldon to see the patient, with a view to performing this operation with the simple apparatus he has devised for the purpose, and with

which he has performed the operation several times with good result. Dr. McDonnell suggested that the case was one suitable for the intravenous injection of milk, as recommended by Drs. Pepper, Hodder, T. Gaillard Thomas, and others in America. Dr. Meldon, after considering the cases published in America, recommended to the patient's parents that, as a last hope, the operation should be undertaken. They readily consented, seeing that their son had not otherwise many hours to live. Dr. Robert McDonnell performed the operation on Wednesday, the 22nd inst. Drs. Martin, William Smyly, and Meldon were present and assisted. The milk was fresh from a cow brought to the spot, and was warmed to 100° Fahr. Nine ounces and a half were allowed to pass into a vein at the bend of the elbow. While passing in, the pulse, which was watched by Dr. Martin, rose in strength. The milk was permitted to pass into the vein slowly, so that between twelve and fifteen minutes elapsed before the injection was completed. After the operation the pulse became very rapid and feeble. The immediate effects were similar to those observed by Dr. Pepper—"great respiratory disturbance, capillary injection, etc." This condition of depression continued for about two hours. A marked improvement then took place. The patient passed a quiet night. Since then he has made favourable progress, and last Monday, on the sixth day after the operation, he was taking nutriment freely, although very weak and emaciated.

TYPHOID FEVER IN PEMBROKE TOWNSHIP, DUBLIN.

For some time the great and increasing prevalence of typhoid fever in one of the most fashionable suburban districts of Dublin (the Pembroke Township) has been causing much anxiety and inconvenience. The most populous part of the Township consists of modern streets of first-class houses, with gardens in front and behind; the roadways planted with a double line of flourishing elm-trees, and freely open to the pure breezes from the Dublin mountains in all winds from S.E. through S. to S.W. Notwithstanding these advantages, typhoid fever has raged in the Township during the past two or three years to such an extent, that public opinion has been of late thoroughly aroused to the necessity for coping with the evil. An influentially signed memorial was recently presented to the Local Government Board for Ireland by the inhabitants of the district, asking that a searching inquiry should be held as to the sanitary condition of the Township. The Board, however, have not consented to hold such an inquiry; but we understand that they are about to issue a sanitary commission to investigate the state of affairs. From what has already come to light it would appear that, while the main drainage system of the Township is far from perfect owing to deficient fall, the real fault consists in the deplorable condition of the house-drains and water-fittings. In many cases there is no connexion whatever between the house-drains and the main sewer. In most of the houses the water used for drinking purposes is taken from the water-closet cisterns, instead of being drawn directly from the main. The basement storeys are uncemented, the wooden floors being laid on rubbish filled in during the building of the houses. These and such-like violations of the principles of sanitary house-construction are believed to be amongst the causes of the prevailing epidemic of typhoid fever, which is doing so much to damage what is perhaps the most beautiful outlet of Dublin.

SECTIONS OF THE FROZEN HUMAN SUBJECT AT THE ROYAL COLLEGE OF SURGEONS.

During the last few weeks we learn that Dr. Garson, the Anatomical Assistant at the Royal College of Surgeons, has been engaged in making frozen sections of the body similar to those made by Pirogoff in Russia, Braune in Leipzig, and Rüdinger in Munich. The sections, which are the first of the kind made in this country, have turned out very well, and reflect much credit on Professor Braune's teaching, as well as on Dr. Garson, who was for some time a pupil of his, and learned from him the mode of making frozen sections. The process consists of surrounding a body with a freezing mixture of salt and ice until it is perfectly frozen through. Subjects whose bloodvessels have been injected with a composite substance of different colours for veins and arteries are placed in sheet-iron cases surrounded with a freezing mixture of salt and ice, where they are allowed to remain from three to four days, according to the degree of cold obtained—taking shorter time when the frost is intense, and longer when not so great. We are informed that several minutiæ have to be attended to in order to insure success. When the subject has been successfully frozen, it should be like a piece of hard oak wood, so that it can be sawn into sections with a fine-toothed saw, like wood, and give off sawdust. They are then sawn into plane sections about one inch and a half thick, and are kept in spirits for some days, after which they are finally cleaned, and put up in spirits in glass cases. One body has been divided entirely into transverse sections, and another into longitudinal ones. The sections, as made by Dr. Garson, show very accurately the position of the various organs and structures of the body, and their relations to one another. Altogether, much may be learned from the sections, and they will prove to be a valuable addition to the College of Surgeons' Museum, for which, we learn, they are intended.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

The annual general meeting of the above Association was held on Wednesday, January 22, when the following officers were elected for the ensuing year:—*President:* S. J. A. Salter, F.R.S. *Vice-Presidents:* J. A. Baker; S. Cartwright; W. A. N. Cattlin; Alfred Coleman; John Smith, F.R.S.Ed. *Treasurer:* Thos. Edgelow. *Hon. Secretary:* J. Hamilton Craigie. *Council:* S. Hamilton Cartwright, J. Fairbank, F. Fox, G. Gregson, W. Donald Napier, George Parkinson, John H. Parkinson, and W. G. Ranger.

HEALTH OF THE LAMBETH DISTRICT.

In the twenty-second annual report on the health of the parish of Lambeth for the past year, recently made public, Dr. Archer Farr, the Medical Officer of Health for the district, reports that the rate of mortality was considerably lower than in previous years. This result, he considers, is mainly due to the fact that the seasonal changes during the year, as affected by moisture, temperature, etc. (although conducing to the spread of small-pox), have been favourable to the public health generally. Following up the suggestion made in his last annual report, recommending that the excreta passing from small-pox and fever patients in hospitals should be thoroughly disinfected before being allowed to mingle with the sewage of the district, Dr. Farr states that Dr. Soper, of the Metropolitan Asylums Board, has invented and applied to the drains of the Stockwell Fever and Small-pox Hospitals an apparatus by which any infection contained in the sewage can be conveniently and effectually destroyed on its way to the main sewer. The invention consists in the application of chlorine gas by means of a generator, which is in the shape of a cone perforated at the apex. Connecting the sewer with the surface of the ground is an eighteen-inch sewer-pipe placed perpendicularly, into which the generator, previously charged, is lowered by means of a chain. It is so adjusted that when *in situ* its perforated end dips some inches into the sewer, and emits a continuous stream of chlorine gas, the charge being so regulated as to require renewing twice a week only. During the recent epidemic

the defective drainage in many of the houses in which small-pox occurred within the Stockwell district pointed strongly to the possibility of the infection having been conveyed through the medium of sewer-gas; the result of Dr. Soper's application, as affecting the health of his locality, will therefore be looked for with some interest.

THE HUNTERIAN SOCIETY.

THE general meeting of the members of this Society, for the purpose of electing officers for the ensuing year, will be held in the London Institution on Wednesday, February 12, at half-past seven o'clock. On the same evening, at eight o'clock, the Hunterian Oration will be delivered by Mr. Rivington in the theatre of the Institution. The annual dinner of the members and their friends will take place at the "Albion," Aldersgate-street, on Saturday, February 15, at half-past six o'clock.

FILARIA SANGUINIS HOMINIS.

AT the next meeting of the Epidemiological Society of London, on Wednesday, February 5, Sir Joseph Fayrer will read a paper on "The Relation of Filaria Sanguinis Hominis to Endemic Disease in India."

FROM ABROAD.

PENSIONS FOR WIDOWS OF DOCTORS DYING FROM CONTAGIOUS DISEASES.

A PETITION has recently been presented to the French Senate by several medical men, calling for a law which shall accord pensions to the widows and gratuitous education for the children of medical men who have died from contagious or epidemic diseases contracted during the practice of their profession. Men succumbing in the struggle with disease in infected localities, the petitioners declare, incur a death neither less meritorious nor less glorious than that of the soldier who falls on the field of battle; and the nation which adopts the family of the latter, ought for the same reason extend its aid and protection to the relatives of the former. At first sight the proposition will sound plausible, but a brief examination shows that it is based upon a false analogy. None of the French medical press that we have seen have supported it, and two of the leading organs of this, the *Gazette Hebdomadaire* and *Gazette Médicale*, urged by the promoters of the petition to render their aid for its furtherance, adduce arguments against its adoption which seem to us unanswerable. M. Dechambre, the editor of the *Gazette Hebdomadaire*, expresses himself (December 27) as follows:—

"It always has a bad appearance not to encourage efforts made in favour of the interests of the medical body. But deficiency of frankness would not be more meritorious, and frankness compels us to declare that, if we have not hitherto noticed this petition, it is because it seemed to us as excessive as impracticable.

"The medical profession is a free profession. He who embraces it should weigh both its advantages and its disadvantages. At the moment of peril he has the right of retiring, although he would be cowardly in so acting; but if he remains he fulfils simply and purely his duty. This is no business of the State; and the assimilation which has been sought to be established between the doctor and the soldier is entirely factitious. The soldier performs a public service, which is obligatory upon him, and which removes him from a professional life. He is the pupil of the nation for which he fights. The doctor renders what services he pleases, and how he pleases, to the advantage of individuals and to his own proper advantage, and the nation owes him nothing. Moreover, if we once entered on this course, we must also pay the same attention to the ward-attendants and nurses, the married Protestant pastors (who are still more compelled than doctors to brave the approach of infectious disease), and even to Old Catholics if ever they succeed in spreading through the country.

"I say, moreover, that this project is impracticable because it is very often an obscure question to decide whether the contagious disease to which a doctor has succumbed has been communicated to him by a patient. Say an epidemic ravages the country, whether it be cholera, small-pox, or diphtheria. Every doctor, with few exceptions, has treated one or more cases, and one of the number contracts the disease and dies of it. Where did he get it? from a patient, or from the vitiated air? Is he the victim of a professional act, or of an epidemic? An inquiry alone could establish the facts; and even it would generally fail to do so. If pensions are to be demanded for the widows of all practitioners dying of epidemic diseases, can it be supposed that the Legislature would engage the finances of the country in such an adventure? The medical body itself must heal its own wounds; and for this purpose it has association. That, under exceptional circumstances, when the sacrifice has surpassed the ordinary measure, and when the service rendered has been extraordinary, the gratitude and generosity of the State be appealed to, well and good—and the intervention of the General Association would certainly be listened to; but a petition drawn up as this has been is a remnant of the times of privilege, a want of the appreciation of suitableness, and a dream."

M. de Ranse, the editor of the *Gazette Médicale*, fully agreeing with M. Dechambre's appreciation of the question, observes in the number for January 11:—

"Yes, surely the death of the practitioner a victim to the care he bestows on his fellow-men is quite as glorious as that of the soldier who falls in face of the enemy. It is even more so, for he voluntarily exposes his life, since no force or authority can constrain him to do so. If he fly before danger, apart from the shame which his weakness may entail upon him, no repressive law can attain him. The soldier, on the other hand, is forced to march, and if in his patriotism, or in the communicative enthusiasm of his comrades, he does not find the force necessary to meet death bravely, he knows the lot reserved for the coward and the deserter. His only alternative is a glorious death or an ignominious death; and it is just this liberty on the part of the doctor and this obligation on the part of the soldier which do not permit of any similarity being established between them. . . . . The petitioners, with the best intention in the world, seem then to us to be seeking to engage the medical body in a false direction. It is not to the State that we should look for recompense for our devotion—a devotion which should be as disinterested as it is free. This it is that constitutes its merit, and which elevates and ennobles our profession. It appertains to ourselves to honour our heroes and our martyrs; and the medical officers of the Navy so understand it, and have just presented a salutary example by raising in their own body a subscription for the erection of a monument to the memory of those of its members who exhibited the courage and devotion required to repair to Senegal to combat the yellow fever, to which they were not long in falling victims. It is not at the hands of the State that we should demand succour for the widows and orphans of those of our body who have preceded us to the grave. It is to ourselves that we must look, to our fraternal solidarity and to association. Let us unite together, ameliorate our present institutions, and create others if it is necessary; and let us by our mutual support provide shelter for our widows and children against the eventuality of misfortunes."

TEETH-GRAFTING.

Two interesting papers were presented to the Académie des Sciences at its meeting on January 6 (*Comptes-Rendus*, 1879, No. 1), by Dr. Magitot, and by one of his pupils, Dr. David. Dr. Magitot, after adverting to his former communications relating to grafting of the dental follicles in certain species of the mammalia, states that in the present paper he carries the subject very much farther, embracing grafting the adult dental organs, and supplying practical applications.

"There are," he observes, "three varieties of dental grafting—1. By *restitution*, in which the tooth removed from its alveolus is restored to it, either immediately, or after a variable period of time. 2. In grafting by *transposition* a tooth is removed from one alveolus, and transplanted into another, whether in the same or in a different subject. 3. In *heterotopic* grafting, the teeth are grafted on various

parts of the body other than the jaws, examples of which are recorded as resulting from the experiments of Hunter, A. Cooper, Philipeaux, etc." In the present paper Dr. Magitot confines himself to grafting by restitution, combined with the excision of the diseased parts before restitution is made. His researches on this point were first published in the *Gazette des Hopitaux* for 1875; others have been published in the theses of his pupils, Drs. David and Pietkiewics; [and the operations of this kind have now reached the number of sixty-two. Of these sixty-two cases, fifty-seven have been definitively cured, a great number of these cures dating back from two to two and a half years. The age of the patient does not seem to have exerted any influence on the results, and the various kinds of teeth have been alike excised and grafted. The surgical indication for grafting combined with excision is essentially based upon the diagnosis of a special lesion characterised by *chronic periostitis* of the summit of the fang of the tooth—*i.e.*, inflammation of the periosteum, denudation and necrosis of the subjacent cement, and absorption of the ivory. It is a kind of mortification of the root. The morbid process which results consists in a series of accidents, as phlegmon of the gums and face, denudation and necrosis of the alveolar margin, and mucous or cutaneous fistulæ, etc. These accidents sometimes assume the chronic form and sometimes are intermittent. Left to themselves, they may give rise to great mischief, such as deformities and cicatrices of the face, and a general condition that may even place the patient's life in danger. As the mortified summit of the root of the tooth cannot be otherwise got at, preliminary extraction is required in order to enable the diseased portion to be excised, the portion of the tooth which remains sound then being restored to its original place. Before restoring it the surgeon may, if necessary, resort to various procedures, such as washing out the purulent cavity or removal of sequestra, while, as regards the tooth itself, he may excise portions of its crown, or perform plugging in the case of caries. In a good number of the cases treated, the periostitis of the summit was not accompanied by concomitant caries, but in others a co-existing caries was able to be stopped while the tooth was out of the mouth. The subsequent treatment consists in the application, when necessary, of guttapercha supports, drainage, and the removal of any mortified portions of the alveoli, etc. In general the consequences of the operation are very simple. When consolidation has been effected a slight local reaction takes place, accompanied by few or no general phenomena. The fistulæ close, the discharge ceases, and complete consolidation takes place in from a week to a fortnight. The tooth recovers its vascular connexions and its uses are re-established. When the attempt fails, the tooth is simply eliminated by suppuration in a few days.

M. David in his paper thus speaks of "grafting by restitution":—"Re-implantation combined with extraction is a procedure which enables us to subject the teeth to operations which would have been impracticable in the mouth. We have personally resorted to it—1. For the adjustment of certain anomalies of direction. 2. In the treatment of caries when the situation of this did not admit of our reaching the pulp in order to destroy it, and practise *in situ* a satisfactory stopping. 3. In the treatment of the form of alveolo-dental periostitis, in which this affection is limited to the summit of the root. It allows of our excising the affected parts just as is done on a diseased bone; and this excision is the only means of radically curing the neighbouring lesions which so often accompany this form of periostitis, as osteitis, necrosis, fistulæ, etc. If the tooth is carious it can also then be stopped. 4. It may also be resorted to in order to facilitate the execution of operation on another tooth or in another part of the mouth. The consolidation of the tooth replaced in its alveolus takes place, on the mean, from the tenth to the fourteenth day. It is more rapid (by the second or third day) when the roots are healthy. In cases of periostitis it is slower; and then, principally when there are osseous lesions in the vicinity, the existence and maintenance for some days of a well-established dental fistula is of first-rate importance. By this means the suppuration obtains free external issue, and does not disturb the organic phenomena which are in progress between the root of the tooth and the alveolus. To the discharge of the pus by the alveolus is due our single failure. The various lesions of the vicinity (fistulæ, etc.) in general are cured soon after consolidation takes place. The cure has remained durable in our earliest cases for more than two years.

"Thus methodised, this procedure seems to us to carry the curability of dental affections to its farthest limits. It has given us but one failure in twenty-two cases."

REVIEWS.

Zur Behandlung einfacher Fracturen der Extremitäten mit Gyps-Hanf-Shienen. By Dr. F. Beely. Hartung, Königsberg. 1878.

On the Treatment of Simple Fractures of the Extremities by means of Plaster-of-Paris and Tow Splints. By Dr. Beely. Pp. 75, and twelve lithographic plates.

The treatment recommended in this little *brochure* was carried out for some time in the surgical section of the Königsberg Hospital and Policlinic under the superintendence of Professor Schönborn. About fifty in-patients and 250 out-patients were so treated. The author claims for it the merit of simplicity, general adaptability, and cheapness. After giving various directions concerning the plaster of Paris, which are too well understood to need repetition here, he describes his peculiar method. The plaster is mixed to the consistence of cream; small hanks of well-combed, long-fibred tow are soaked in the mixture, and then laid on the broken limb, generally on its anterior surface, until about one-third of the circumference of the limb has been covered; these hanks of tow, saturated with thin plaster, are laid side by side, slightly overlapping, until a thickness of about one-third of an inch is uniformly obtained. If it is desired to swing the limb, or suspend it, suitable iron hooks are inserted at proper intervals among the soft tow. A bandage is then applied provisionally until the plaster has firmly set. The limb, of course, has to be held in proper position after reduction of the fracture until the plaster is hard. A permanent bandage is then applied according to requirements.

We need scarcely say more about this plan. Each surgeon will be able mentally to follow the further treatment as regards its details. On the whole, we should think the plan likely to succeed, but we do not see any advantage which this method offers over others which have long been in use. We are in favour of the treatment of fractures by the plaster-of-Paris method, and, as the result of considerable practice, confidently recommend it. But we think, of all the methods hitherto introduced, the gauze bandages are the most useful, as they are the most convenient and the least *messy*. Plaster of Paris will always have the disadvantage in private practice of being considered dirty; and the number of hands, and of basins, etc., required has hitherto tended to interfere with its general adoption. Nowadays, however, a surgeon need only provide himself with half a dozen gauze bandages into which the plaster has been well rubbed: he can carry these in his pocket, and in case of need, after first soaking them in water, can "put up" almost any fracture he is likely to meet with, without further apparatus. If the limb swell subsequently, the plaster jacket can be cut down the centre without being removed, and an ordinary bandage applied over it. This, in our estimation, is the best method, as well as the most economical one, of applying plaster of Paris. We have not tried our author's particular method, though we are acquainted with similar methods. Thus, it has been proposed to lay a fractured limb on a cushion filled with plaster, and allow the limb to settle itself, assisting it in doing so by a little gentle pressure, and by means of a bandage. We agree with the author in thinking that the success of the method depends largely on having good plaster.

SHORT NOTICES OF BOOKS.

Mechanical Dentistry. A Practical Treatise on the Construction of the various kinds of Artificial Dentures, comprising also Useful Formulæ, Tables and Receipts for Gold Plate, Clasps, Solders, etc. By Charles Hunter, Mechanical Dentist. Crosby, Lockwood, and Co., 7, Stationers' Hall-court, London. 1878. Crown 8vo, pp. 268, with numerous wood engravings.

The want of a practical treatise on the construction of artificial dentures has, we believe, been long felt; and Mr.

Hunter's work on "Mechanical Dentistry" meets that want very successfully. It is the outcome of his own experience of some twenty years as a mechanical dentist, and contains moreover much derived from the practical knowledge of other dentists. The book does not contain, we imagine, anything original, but the tone is modest, it is concise and very clearly written, and gives, here and there, many very useful and practical hints. The value of the book is also much added to by the illustrations, several of which are from blocks belonging to the well-known firm of Claudius Ash and Sons, and by the formulæ, tables, etc., for gold plates, solders, etc. The work is likely to be very useful to the dental student and to all mechanical dentists.

Harvey and his Claims as a Discoverer. A Lecture delivered at Folkestone on the Three-Hundredth Anniversary of his Birth. By Robert C. Jenkins, M.A., Rector of Lyminge, and Hon. Canon of Canterbury. London: T. Richards, Printer, Great Queen-street. Folkestone: all Booksellers. 1878.

This is one of the products, and a good one, of the movement to celebrate the tercentenary anniversary of Harvey's birthday. The pamphlet gives a good and reliable account of Harvey's work in life, and for all time, and may be recommended as well suited for lay readers. Canon Jenkins has evidently carefully and patiently studied his subject; and he gives us here the result of his researches. He sets forth the state of knowledge at the time when Harvey took up the study of the circulation, and points out the difficulties he had to contend with in establishing the truth of his discovery; and he examines into and disposes of the claims set up in favour of earlier teachers to the credit of the discovery of the circulation of the blood. He gives an abstract of Harvey's famous treatise "De Motu Cordis et Sanguinis," and commends the spirit in which he worked for imitation by all future searchers in the field of scientific truth.

The proceeds of the sale of the pamphlet, the price of which is one shilling, are to be devoted to the Harvey Tercentenary Memorial Fund. We hope it will find very many readers.

The Preservation of Health in Tropical Climates. By Geo. W. Thompson, L.F.P.S. Glasg., L.S.A. Lond. Edinburgh: Maclachlan and Stewart. London: Simpkin and Marshall. 1878.

The author of this little pamphlet, who was formerly Surgeon to the African Association, has had a considerable experience of tropical climates, having resided at Brass River, Sierra Leone, and other similar places. The work tells nothing new, but it may be commended to all who are going to India or to any other hot climate for the first time. It is written in a very readable style, contains much good common-sense advice about dress, food, the mode of living, and occupation, etc., and is likely to be useful.

On Artificial Disinfection as a Means of Preventing the Spread of Infectious Diseases. By the Rev. J. H. Timins, M.A., F.G.S., Vicar of West Malling, Kent. London: J. and A. Churchill, New Burlington-street. 1878. Pp. 47.

Mr. Timins, who before taking holy orders was a medical student at St. Thomas's Hospital during four consecutive years, gives in the pages of his pamphlet the practical results of artificial disinfection in its application for the eradication of small-pox, scarlet fever, and diphtheria, in numerous outbreaks of those diseases during the years 1875-6-7-8, in the Local Board Districts of Maidstone, Tonbridge, Southborough, Bromley, and Dartford, and also in the Rural Sanitary Districts of Maidstone, Bromley, Malling, Tenterden, and Cranbrook. We are not quite prepared to accept as scientific truth all that he says of infection and contagion; but what he says of the various disinfectants most in repute is good; and his directions as to modes of using them, and the rules laid down for his disinfecting nurses, are very good and thorough. We do not hesitate to recommend the pamphlet as a very useful and instructive little work.

Street's Indian and Colonial Mercantile Directory, for 1878-79. London: G. Street and Co., 30, Cornhill; and Street Brothers, 5, Serle-street, W.C.

This work contains, in addition to trade returns, tariffs, populations, etc., full particulars (with rates and times of transit) of the steam and other communications with the various places treated of, wherever anything like a mode of conveyance exists; and the average time of transit by sailing-vessels is also given. The leading merchants and traders of every class are enumerated; short descriptions of each country and town, the railways in operation or in course of construction, and various other particulars, such as weights, measures, coinage, and official information, are also furnished. And maps are given of different countries, showing the relative positions of the chief towns. The book is well calculated to be of use to travellers, and to medical men and other persons thinking of settling in India or the colonies.

The Boy's Own Paper.

We have received from the office of the *Leisure Hour*, 56, Paternoster-row, the first and second numbers of a new journal for boys, which is conducted by the editor of the *Leisure Hour*. It is intended to supply lads with a magazine "that shall be at once readable and healthful, entertaining and instructive"; and the two numbers already published well carry out that object. They contain the commencement of two tales, by W. H. G. Kingston and Mrs. Eiloart, well-known writers of boys' books; "Out with a Jack-Knife," by Rev. J. G. Wood, the author of "Illustrated Natural History," and other similar works; Captain Webb tells how he swam the Channel; Frank Buckland writes of his monkeys, and how he managed them; and the rest of the contents includes "sports, pastimes, travels, adventures, and a variety of amusement and instruction." The tone throughout is healthy and good; the journal is freely illustrated; it contains sixteen pages folio; and its price is only one penny. If the character of the journal is kept up to the mark of the first two numbers—and the fact that it is under the management of the editor of the *Leisure Hour* gives excellent guarantee that it will be,—the *Boy's Own Paper* ought promptly to win wide popularity. We have no hesitation in strongly recommending it.

A general meeting of the National Health Society was held last week at the Society's offices, Berners-street. The report of the year's work was read by the Secretary, Miss Lankester. A new scheme for house sanitation was discussed, and the following resolution was passed:—"That this Society earnestly expresses the hope that the School Board of London will, at the earliest possible opportunity prior to the ensuing spring, find means for fitting and opening the playgrounds attached to the School Board Schools, for the purpose of systematic recreation during the Saturday evenings and summer holidays."

Infirmities in France.—In the new volume of the *Statistique de la France*, just published, we find the following information respecting the insane, the *goîtreux*, the blind, and the deaf and dumb. There are 82,873 *insane* (39,887 *à domicile*, and 42,986 in asylums), and therefore 23 insane to 10,000 inhabitants. Of the 39,887 returned as *à domicile*, 7931 are lunatics properly so called, and 31,956 idiots or cretins; but in the asylums the lunatics number 38,200, and the idiots only 4786, showing that but a small proportion of the lunatics are retained in their families. The number of male lunatics and idiots is 42,421, and of female 40,452. In the asylums the number of females is larger than that of males. *Goître* seems to be on the decrease. From 33,878 returned six years ago, the number has descended to 29,638. Females suffer much more from this disease than males, as, of 26,789, they numbered 18,374, and the males only 8415. The number of *blind* has also diminished, having sunk from 30,214 to 28,491. Accidental blindness is far more frequent than congenital—viz., 23,247 cases to 5244. It is the contrary in regard to the *deaf-dumb*, 16,127 of whom are so from birth, to 5268 from accidental causes. Of the blind as well as of the deaf and dumb there are more males than females. Summing up all the subjects of infirmities, these are found to amount to 159,548, or 1 to every 232 inhabitants. —*Union Méd.*, January 23.

GENERAL CORRESPONDENCE.

LOW THERMOMETER AND HIGH DEATH-RATE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Every student of statistics is already familiar with the fact that a great increase of mortality occurs at two periods in every year—during the weeks of greatest heat and greatest cold,—and will be thankful to Drs. Buchan and Mitchell for the fulness and precision with which they have worked out the details of this fact.

In good sooth, heat and cold are the most deadly enemies to human life; but whilst quite a panic is created and every possible means set on foot in case of an invasion of zymotic disease, we seem contented to allow heat and cold to slay their thousands and ten thousands as if it were a matter which could not be helped.

Leaving the subject of heat for the present, the great mortality from cold is a measure of the insufficiency of our arrangements for protection against it. These are food, clothing, fire, and house. Food and clothing are matters within the reach of everyone who can afford them, but in the matter of fire there prevails an ill-judged parsimony: in many otherwise comfortable families no fires are allowed in the bedrooms, and young delicate persons are obliged to dress and undress, and perform their ablutions, night and morning, in a room at or below freezing point. The intense cold is an impediment to ventilation; chimneys are apt to be stopped up to keep out draughts; bed-clothes are not properly aired and dried; and in case of a thaw, intense dampness is often added to the closeness which marks an ill-ventilated bedroom. The backs of houses, too, with a north aspect are often built with exceedingly thin walls, with ill-fitting windows, and are piercingly cold and damp; but for the misdoings of builders there is no remedy. Yet we may say of fire what the Italians say of the sun, "Ove va il sole, ove no va il dottore." Fire dries the walls, sweetens and purifies bed-linen and other clothes, brings ventilation without draught, it costs very little in itself, and anyhow is cheaper than a bad cold or neuralgia. Of course there is warmth enough wasted, with our present arrangement of fires, to make our houses comfortable, but this generation will hardly be emancipated from the misdeeds of builders.

I am, &c., EMERITUS.

THE Hunterian Oration will be delivered on February 14, and a large number of distinguished guests have already accepted the Council's invitation to the festival, which will take place in the library of the Royal College of Surgeons, and not (as stated in a morning contemporary) at a tavern.

DIMINISHED NUMBER OF MEDICAL STUDENTS IN AUSTRIA.—The number of the students has diminished in a remarkable manner in all the medical faculties of Austria. In the year 1870 there were 1271 in Vienna, 418 in Prague, 257 in Graz, and 80 in Innsbruck—altogether 2026 medical students. In 1877 Vienna had but 712, Prague 238, Graz 138, and Innsbruck 45—altogether 1033. The whole of the universities combined then had not so many medical students in 1877 as Vienna had alone in 1870. The decrease has been alike in all these faculties, amounting to about one-half in each; and it has also been constant, as during all these seven years no one of them has exceeded its predecessor in the number of medical students.—*Wien. Med. Presse.*

AT the pass examination just concluded for the membership of the Royal College of Surgeons, the following very interesting clinical cases from St. Bartholomew's, St. George's, St. Thomas's, St. Mary's, Guy's, University College, and the Westminster Hospitals, were submitted to the candidates:—Large hydrocele, amputation of penis, secondary deposits, fatty tumours, lymphadenoma, enlarged bursa, cyst at back of the neck, encysted hydrocele, carpal bursa, fatty tumours in various parts of the same patient, inguinal hernia, preputial warts, enormous hydrocele, chronic enlargement of the left leg and thigh, exostosis of tibia, flat feet, bursa on the back, popliteal bursa, thecal abscess, erythema nodosum, encysted hydrocele of cord, inflammation of testicle, strumous disease of ankle, syphilitic eruptions, sore on scrotum, strumous ophthalmia, etc.

REPORTS OF SOCIETIES.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, JANUARY 17.

Dr. STEVENSON, President, in the Chair.

THE minutes of the previous meeting having been read and confirmed, the report of the Council relative to a Bill "To Remove Disqualification by Medical Relief for Infectious or Contagious Disease" was read. It was resolved that the Bill as printed be so extended as to prevent any disability from rights of citizenship, etc., of patients in receipt of medical treatment, save and except in the case of persons treated in workhouse infirmaries. The Council recommend the general approval of the Bill to amend "The Artisans' and Labourers' Dwellings Act, 1868 (Torrens' Act)." They have made a few alterations, as detailed in the report, with special reference to the need for compensation to owners for the destruction of their property after it has been condemned as unfit for habitation. The Council also recommend that the district vestry be the local authority, and not the Metropolitan Board of Works, for the purposes of the Act.

A letter and report were submitted from the Metropolitan Asylums District Board, relative to the proposal to provide hospital accommodation for patients other than paupers.

Mr. Edward Bayley and Dr. Willoughby were balloted for as Associates, and elected. Professor Ansted was proposed as an Honorary Member; Mr. Whitaker, of London, and Mr. J. B. Mackey, of Brighton, as Associates; and Mr. A. Clarke, of Twickenham, and Dr. Brookfield, a retired medical officer of health, as members.

Dr. TRIPE gave notice of a proposal to alter the amount of subscription to the Society.

Mr. DANFORD THOMAS read a paper on "The Present System of Registration of Deaths, with Suggestions for its Improvement." Having briefly recapitulated the chief sections in the Registration Acts, 1836 and 1874, as far as they relate to the registration of death, he drew attention to the actual practical working of them. For thirty-eight years the registration of all deaths that occurred was secured with such information as to the cause of death as might be obtainable. For the last four years more accurate information of the cause of death has been obtained from the certificates which medical practitioners, without fee or reward, have been by these Acts compelled to give, under a penalty for refusing to do so. The registrar, in receiving a medical certificate or in obtaining the best information he can as to the cause of death from the informant, has in this respect fully completed the duties of his office. The number of uncertified deaths per cent. of all deaths varies considerably in different parts. In London, where the coroners (particularly the Middlesex ones) and their officers are usually active, the number is not more than 2 (probably now about 1) per cent. In Durham during the last quarter, out of 361 deaths registered, no less than seventy-one, or 19·7 per cent., were "uncertified," and this fact, in the words of the Registrar-General, "appears therefore to call for investigation." In very many cases of uncertified death some cause of death is assigned by the informant and entered by the registrar, and the result of this must be to depreciate the value of the national death-register as the basis of trustworthy mortality statistics. When uncertified deaths are numerous, unqualified practice is ripe, and this is exceedingly difficult to prevent in the present state of the law. A large proportion of the causes of the deaths registered as "certified" are valueless for public health purposes. Take the well-educated, high-minded, conscientious medical man: does he not occasionally, perhaps frequently, omit to state in his certificate the real cause which ultimately produced the death, and will he not continue to do so as long as the law on the subject remains in its present form? Dr. Farr finds from the registrars' returns that 1120 persons died from the excessive use of alcohol out of 510,315 deaths registered in the year 1876. Dr. Thomas Morton has endeavoured to ascertain the more correct number. Twenty of his friends (fourteen in London, and the rest in different parts of England) have carefully gone over the counterfoils of their death-certificates with the following result, that out of 1375 deaths between the ages of twenty-five and seventy-five, the causes of death in 98 were

wholly due to alcohol, and that 164 were partially due to it. This gives a proportion of 1 in 14 wholly due, and 1 in 8·38 partially due, or 1 death in 5·24 referable in some degree or other to this agent. Applying these ratios, says Dr. Morton, to the number of deaths from all causes between twenty-five and seventy-five, which for the year is returned at 198,678, we have 14,191 deaths wholly due to alcohol, and 23,709 partially due to it; in all, 37,900 deaths entirely or partially caused by alcohol. How many of the deaths returned on the medical certificates as cirrhosis, hepatitis, jaundice, hæmatemesis, dyspepsia and pyrosis, stomach disease, Bright's disease, phthisis, insanity, paralysis and apoplexy, cephalitis, dropsy, etc., are due more or less directly to alcohol, or accelerated by it? Ought not this fact, when it exists, to be stated on the certificate of death? The medical practitioners would certify correctly if our system of registration were improved. Syphilis and the various forms in which it appears, when causing death, are seldom registered as such, from the same reasons as those mentioned with regard to alcohol. In the Registrar-General's Report of 1876, from which I take my figures, 2344 deaths were registered, the causes of death not being specified; 181 deaths were returned as from "violence," without being classified; 2537 were "sudden" deaths, "causes not ascertained." There were 23,615 deaths registered of children under five years of age as dying from atrophy or debility, no primary cause for these deaths being certified. How many of these last were due to exposure, absence of breast-milk, bad and improper food, and neglect, it is difficult to estimate. There is a large number of deaths which the Registrar-General designates as "undistinguished"; they are registered as follows:—"Disease of heart, etc." One gentleman for years was content with stating the cause of death as "natural causes," giving no further particulars. One practitioner, to my knowledge, gave fourteen certificates in succession of the deaths of children as dying from "effusion of serum on the brain." The Coroner for Manchester, out of 800 inquests held in one year, returned to the Registrar about 250 of them simply as "natural causes," although he is required by law, as previously stated, to ascertain the "cause of death." In Central Middlesex, the returns of the Coroner show that one in ten are recorded as dying from the direct effects of alcohol, but in many instances the fact of the drinking is concealed by the friends. The Coroner estimates that about one in five of the deaths upon which he holds inquests are either directly caused or accelerated by drink. Every registered medical practitioner should be appointed a primary registrar of deaths, and his returns should be made to a superintendent registrar, who should be the medical officer of health for the district in which the death occurred, or where the body lies. On one page or side of the prescribed form the registrar would enter all those particulars which are now required from an informant of a death. Copies of this return should always be obtainable by anyone from the superintendent registrar, on payment of a fee, as heretofore. On the other side should be a confidential report to the superintendent registrar, and through him to the Registrar-General. This report should consist of answers to a series of questions so arranged as to afford a concise but complete medical history of the deceased, as far as can be ascertained by the registrar, who, as medical attendant, would be in a position, from his knowledge of the patient, to answer very fully all the questions asked. The superintendent registrar should be empowered, in the absence of a coroner's inquest, to order a post-mortem to ascertain the medical cause of death if not otherwise apparent. All expenses to be paid by the sanitary authorities. The coroner and the medical officer of health should act as much as possible in unison, and the coroner should be compelled to return to the superintendent registrar more exact details connected with the death. In special cases, where the ordinary inquiries of a coroner's constable previous to an inquest being held are insufficient to determine the coroner as to whether he should hold an inquest or not, the superintendent register should be empowered to make a special inquiry and report, which might enable him to register the death without further inquiry, and on production of an order from the coroner for that purpose he should receive a fee for so doing, either from the coroner or from the sanitary authorities.

Dr. Thursfield read a paper on "Contagious Cynanche (Diphtheritic Sore-Throat), with special reference to the sanitary dangers of the present custom of Nomenclature," of which we subjoin an abstract. The germ of contagion is in this disease so persistent in its vitality under favourable local conditions, that cases of recrudescence occur long after every record of previous outbreaks have faded away; and these outbreaks are apparently more capricious, owing to the great influence, in this disease, of personal susceptibility. Diphtheria may in several ways be disseminated like enteric fever, but its ordinary mode of travelling across a country and becoming epidemic is, like scarlatina, by personal agencies. It is the disease of all others which is disseminated by schools. The term "diphtheria" is unfortunate as so suggestive of a well-known, but by no means constant, symptom of the disease, viz., the diphthera or membrane; and very frequently this is looked upon as a paramount consideration, altogether regardless of the more important point, whether the disease is infectious or not. I have constantly seen severity of symptoms in diphtheria appear to result from passage of the infection through cases either personally, or from surroundings specially predisposed to suffer severely. The introduction of a new subject, as a domestic servant, to close contact with the disease has resulted in an attack at once setting up a more virulent form of infection. If we accept as a principle that all cases of infectious sore throat (not symptomatic of other disease) are identical in nature, then we ought to give practical effect to this principle in our nomenclature. The recent report of the Committee of the Medico-Chirurgical Society seems to have recognised the unscientific use of the term "diphtheria," but, in their recommendation to substitute for it "membranous laryngitis," they have only added another element of confusion by giving paramount importance to what is only of importance from a clinical point of view. This Society should endeavour either to extend the use of the term "diphtheria" to all cases of infectious sore throat, or return to the term "contagious cynanche," in use in this country for this same disease before the introduction of the term "diphtheria" from France.

In the debate following the reading of the papers,

Dr. Stevenson said we must look at death-certificates as serving two particular purposes—(*a*) that of preventing any foul play in disposing of sick or objectionable relatives and friends; (*b*) that of giving officers of health some assistance in arranging their mortality tables. When a patient dies, for instance, of cirrhosis, it is exceedingly difficult to ask the medical attendant to give an opinion as to the cause of the disease. It is doubtful whether coroners ought to take note of every element in the case, or limit themselves to an inquiry as to the cause of death, whether from violence or otherwise. He agreed with Dr. Thursfield, that we want a more accurate description of the disease called diphtheria; but there would be great difficulty in reverting to the old term, cynanche tonsillaris.

Dr. Tripe expressed surprise that Mr. Danford Thomas should think it at all common for medical men to suppress any information in their death-certificates for their own pecuniary interest. May it not be that in the cases alluded to the information was withheld for the public benefit. To say that 100,000 die annually in Great Britain from drink, or its effects, is surely a very extravagant statement. It is comparatively rare to find permanent injurious effects from the use of drink. Many cases of cirrhosis and kidney disease were from entirely different causes. To attribute one in fourteen deaths to drink is manifestly absurd. With regard to Dr. Thursfield's paper, it is important not to group together two very distinct diseases. In true diphtheria you always have some evidence of paralytic symptoms.

A Gentleman present remarked that a midwife residing in Dr. Thomas's district had registered six cases in fourteen days of infants being stillborn.

Dr. Buchanan agreed that medical men do not give full details in their certificates, for they are only required to give the cause of death. They have nothing to do with certifying as to the cause of disease. Alcohol may have had a share in the production of the disease; but we have no right to ask a practitioner to go out of his way to defame the character of the deceased.

Mr. Lovett remarked that the coroner's officer is often very untrustworthy for the purposes of official inquiry as to the cause of death. Many inquests would be avoided if he were more efficient.

Dr. Thomas, in his reply, said that it would be much better to send the certificate direct to the registrar. Three members of the Society had informed him that they would feel more at

liberty to send fuller details if the certificates were sent direct to the Registrar-General.

Dr. Thursfield reminded the members that so many medical men will not use the term "diphtheria" unless they see the membrane.

THE PATHOLOGICAL SOCIETY.

Tuesday, January 21.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

After the delivery by the President of his Inaugural Address (published in our last week's issue), the following specimens were exhibited:—

Specimens showing the Effects on the Lungs of the Compression of a Main Bronchus.

Dr. Irvine showed three specimens illustrative of these changes. In all three cases the compression had been caused by thoracic aneurism pressing on the left bronchus. Dr. Irvine had previously brought similar specimens before the Society. Of the present group, the first was taken from the body of a Newmarket groom, aged forty-three, who was admitted into Charing-cross Hospital in January, 1878, and died two months afterwards. The patient gave a good family history, but had been much "knocked about." His illness began in March, 1877, with cold and cough, and in January, 1878, he gave up work altogether, having been much pulled down by cough, dyspnœa, pains about the chest, choking feelings, and loss of appetite. On admission, signs of thoracic aneurism were found—a pulsating tumour in the second left and right interspaces, dulness over a circumscribed area, with thrill and a systolic bruit. There were also signs of consolidation of the whole of the left lung—dulness, with weak bronchial breathing and corresponding râles; considerable vocal fremitus and resonance. Towards the end amphoric breathing and gurgling râles, distant and metallic, were heard on the left side, with whispering pectoriloquy. The chest did not fall in, but moved very little in respiration. There was stridor over the left bronchus; the voice was affected; orthopnœa was decided at the last; and the patient died exhausted. Post-mortem, both lungs were large, the right markedly emphysematous, but the left met it at mid-sternum. The left pleura was adherent throughout, the lung breaking down during removal. It was larger than natural, firm, marked by the ribs, and on section vast quantities of sero-sanguinolent fluid escaped. Its pleura was thick and gelatinous. The upper lobe was "honeycombed" into cavities of regular size, bounded by fibrous walls. The lower lobe was hard; on section it had a gelatinous look, interrupted by irregular creamy-yellow patches. An aneurism of the ascending aorta had by its upper part compressed the left bronchus and caused ulceration of its walls, but the aneurism had not ruptured. The second case was that of a woman aged fifty, admitted under Dr. Pollock into Charing-cross Hospital in May, 1878. She had been ill six months, and ascribed her illness to the brutality of her husband. It began with "cold," cough, and dyspnœa, with little expectoration, and pain in the left side. She suffered also from palpitation, lost flesh, and went from place to place for relief for several months, and was admitted to hospital in a very weakly state. Soon after her admission it was found that the left side was dull from apex to base and deficient in expansion, there being marked amphoric breathing in that lung, while other signs pointed to pleuritic effusion. The right chest was markedly emphysematous. After a time, unmistakable signs of aneurism developed quickly, the aneurism advancing externally towards the second left space. The patient had an attack of hæmoptysis a short time before death. On post-mortem examination the right lung was found to be exceedingly emphysematous. The left lung reached the middle line; its adherent pleura being thickened as much as half an inch. On section it was hard and firm; but from the sections pinkish purulent matter flowed freely. In both the upper and lower lobes of the lung the bronchi were dilated, and communicated with extensive cavities due to general disintegration of the lung. The changes were similar to those of the last case, only the ulcerative process was more advanced. The third case was that of a brickmaker, aged fifty, admitted into Charing-cross Hospital in September, 1878, under Dr. Silver. His illness originated, he thought, in a cold caught in December, 1877, when he began to suffer from cough and dyspnœa, with frequent attacks of thoracic pain. When admitted he was in a very weak condition; orthopnœa was decided, and paroxysmal cough with white bronchitic sputa troubled him much. There were marked evidences of right emphysema, and of a thoracic aneurism, which pulsated in the second and third interspaces on the right side. The left side was large, with dulness over the lower half of an absolute kind, and loss of resonance above. Over most parts could be heard distant amphoric breathing, with corresponding râles. Two or three days before death a violent attack of orthopnœa suddenly occurred, and prevented examination. There was no hæmoptysis. Post-mortem a large quantity of clear fresh fluid was found in the left pleural cavity. The left lung was partially collapsed, but none the less emphysematous; on section it showed small scattered pneumonic patches, from which sero-sanguinolent fluid flowed. The right lung was emphysematous. A large aneurism commencing just above the aortic valves had grown so as to compress the left bronchus. Dr. Irvine maintained that in all these cases the lung-changes were due to the mechanical effects arising from compression of the bronchi. In the series were found emphysema and destructive pneumonia or collapse, and serous effusion into the pleural cavity, secondary to more or less sudden collapse. Emphysema was probably the first (and sometimes the only) result of bronchial compression, because when that compression begins there must be an impediment to the exit of air, and, both in ordinary breathing and coughing, pressure on the air-cells from within. So, in two specimens previously shown by Dr. Irvine at the Pathological Society, the lungs had been found very large. Then, as the occlusion of the bronchus becomes more complete, air can enter only in small quantities; but in expiration secretions cannot escape, and by their accumulation exercise a destructive effect (as do the products of catarrhal phthisis) on the structures and circulation of the blood in the lung. Such a mechanical condition must end in the destructive pneumonia so frequently met with. Collapse, which sometimes occurs, probably arises, as it does in bronchitis, upon sudden failure of the inspiratory effort associated with the bronchial occlusion. In the third case this accident probably occurred, soon before death, to a lung already emphysematous and undergoing the earliest stage of destructive change. Sir William Gull had, twenty years ago, described in the *Guy's Hospital Reports* a destructive pneumonia in connexion with mediastinal tumours; but he ascribed it to compression of the vagus at the root of the lung. He had not alluded to the question of bronchial compression as its cause. In the series of cases shown at the Pathological Society by Dr. Irvine, when the vagus was compressed decidedly it was on the side where no lung-change beyond compensatory emphysema could be found, and on the other hand the changes met with had always a direct relationship with the degree of the bronchial compression.

The Arteries of the Brain in Congenital Syphilis.

Dr. Barlow showed, as a recent specimen, the brain with the vessels *in situ* of a child aged three months and a half, the subject of congenital syphilis. On the inferior surface of the basilar artery, at about the middle of its length, was a group of minute nodules. Just before the point of division of the basilar into the posterior cerebrals its walls were opaque and very definitely thickened, so as to narrow considerably the calibre of the vessel. A similar condition affected for a short distance the right superior cerebellar and both posterior cerebrals. The other specific lesions found in this case were two small gummata in the liver, marked thickening of the spleen-capsule, and characteristic thickening of the cranial bones (which Dr. Barlow hoped to bring before the Society on a future occasion). During life the affection of the skin, the sinking in of the nose, and the marasmus had been very pronounced. The child had died the day after being brought to the hospital, so that there was no time for specific treatment to tell. The specimen was the earliest instance of syphilitic brain-disease Dr. Barlow had observed.

Specimens of Bronchial Gland Disease.

Dr. Barlow also showed three specimens of bronchial gland disease, the first and second having special relation to the views of Dr. Guéneau de Mussy on whooping-cough.

The first specimen showed moderate and acute enlargement of the bronchial glands, taken from a child who died on the eighth day of whooping-cough, contracted whilst the child was recovering from double empyema. Dr. Barlow believed from other autopsies that this lesion was by no means constant or marked as an anatomical fact in whooping-cough. The second specimen was taken from a child aged seven months, the subject of tuberculosis affecting most of the glands of the body. There was very considerable enlargement of the bronchial glands. To one, which was about the size of a Spanish chesnut, and was situated above the root of the right lung, the vagus was adherent, the nerve being distinctly stretched and flattened. In this case, although the very conditions were present from which Dr. Guéneau de Mussy claimed that the whoop of whooping-cough was produced, it was noted that during life the child's cough was short and dry, and had not the slightest resemblance to whooping-cough. The specimen was also of interest as opposing Sir William Gull's view that "destructive pneumonia" was produced by compression of the vagus—an opinion which Dr. Irvine had criticised. In this case, although there was a cavity in the right lung, it was of the kind so often found in tuberculosis of children, due to rapid breaking-down of a caseous mass, and not at all of the kind described by Sir William Gull and shown in Dr. Irvine's specimens. The third specimen was taken from a child aged eight months, the subject of general tuberculosis. Amongst other bronchial glands, the one situated at the bifurcation of the trachea was enlarged and caseous, and beginning to ulcerate. The left bronchus, with which this gland seems to have special affinities, showed commencing tubercular ulceration of the mucous surface on the side near the gland. Attention was drawn by Dr. Barlow to cases recorded by Dr. Gee two years ago, in the *St. Bartholomew's Hospital Reports*, where ulceration of the contents of the gland in this position through into the left bronchus had been followed by partial gangrene of the left lung and pericarditis. This specimen showed that the ulceration might proceed in both directions, from the gland to the bronchus, and *vice versâ*, at the same time.

Dr. Burney Yeo supported Dr. Barlow's statements, in opposition to the views of Guéneau de Mussy. The cough found in cases of bronchial gland enlargement was not like whooping-cough, and often in the latter disease there was found post-mortem no evidence of gland enlargement, though such enlargement might occur secondarily to the specific affection.

Sarcomatous Disease invading the Lung and occluding the Bronchi.

Dr. Douglas Powell showed this specimen, which was of great interest in connexion with the subject introduced by Dr. Irvine. A man aged forty-three, of no special family predisposition, and having had no previous illness of importance, suffered, in January, 1878, from cough and hæmoptysis. The hæmoptysis returned in April, and had, with certain short intervals, been continued since that date. He had also had jaundice. He was admitted into the Middlesex Hospital under Dr. Powell's care on December 3, 1878. On examination, December 5, it was observed that the dulness at the right posterior base—which had for some time been extending upwards—reached as high as the spine of the scapula. In front, the dulness extended downwards from the nipple level, and in the axilla the upper boundary of dulness was in a slanting line connecting these two points. Absence of breathing and of vocal fremitus and occasional pleuritic rub were the auscultatory phenomena. The heart was slightly displaced to the left, and the liver was much enlarged. At this date there was marked hyper-resonant, almost tympanitic, percussion below the clavicle, extending downwards to the nipple level, and separated from the dulness below by a very sharply defined line. Over the area of hyper-resonance the breathing was exaggerated vesicular, the vocal fremitus distinct, and vocal resonance also clear. On December 11 a marked change had taken place in the auscultatory signs over the resonant area, which, although still somewhat tympanitic, was less markedly so. The breath-sound was now suppressed, scarcely at all audible, and vocal resonance and fremitus notably diminished. On December 13 the temperature, which had been normal, rose to 103°. The patient complained of severe pain in the chest and of dyspnœa, and he sank on the following day. At the post-mortem examination the right pleural cavity was found obliterated by firm adhesions. A lympho-sarcomatous tumour was found to occupy the posterior mediastinum on the right side, projecting between the trachea and the œsophagus, and to extend from the bifurcation, invading the right lung so as to completely occupy its middle third and completely infiltrate and occlude the main bronchi to the middle and lower lobes. The secondary bronchi proceeding from the occluded trunks to the lower lobe were greatly dilated and terminated in cavities distended with thick purulent secretion. The lower lobe was riddled with these cavities, which had no defined lining, but communicated widely with the bronchial tubes and with one another. The upper division of the bronchus was greatly narrowed by the extension upwards of the growth; it would only admit a fine quill. Its secondary and tertiary divisions in the lung were uniformly dilated and filled with clear mucoid secretion. The section of this portion of the lung was smooth, glistening, and very œdematous, exuding much serous fluid. On microscopical examination, which was made by Dr. Coupland, the walls of the alveoli presented some fibrous thickening of old standing (? hypertrophy). The alveoli contained some loose catarrhal cells and much clear fluid. The growth presented the characters of lymphoma, extensively invading and infiltrating the lung. The liver, kidney, and retro-peritoneal glands were also secondarily affected. Dr. Powell remarked that a special feature of interest in this case was the effect of the recent compression of the division of the bronchus leading to the upper lobe of the lung, which was observed to take place only a few days before death. The changes in the lung seemed clearly, as in Dr. Irvine's cases, connected with the occlusion of its bronchus (except the hypertrophic changes referred to). The pneumogastric nerve entered directly into the mass, and was doubtless compressed or injured there. There was, however, no sloughing or gangrene in any part of the lung, nor any hæmorrhage into it; the vessels and branches of the vagus going to the upper lobe were not seriously compressed. The mucous secretion of the bronchial tubes had continued unimpaired, and up to the time of occlusion of the bronchus the function of the upper lobe had been increased. Dr. Powell explained the œdema of this portion of the lung by the inability of the lung to collapse in consequence of its adhesions to the parietes. The respiratory efforts continuing whilst the entry of air through the bronchus was obstructed, a cupping-glass action upon the lung was the consequence, and diffusion of serum into its alveoli ensued.

Dr. Ewart was of opinion that the explanation advanced by Dr. Powell of the œdematous condition of the upper lobe would help to account for the occurrence of œdema sometimes found in only a single lobe of the lung in the late stages of chronic pulmonary affections.

Cured Aneurism of the Subclavian Artery.

Mr. Sydney Jones exhibited this specimen, as one of spontaneous cure of subclavian aneurism, though the late Mr. Poland had recorded the case in the fifty-second volume of the *Medico-Chirurgical Transactions* as one of cure by compression. The patient had been the subject of several aneurisms, his aneurismal history extending over eighteen years. In 1859 he had a well-marked left popliteal aneurism, which became cured spontaneously after the blocking of the anterior and posterior tibial arteries. In 1861 he presented a right popliteal aneurism, which was cured by compression on the proximal side of the vessel. In 1866 the patient came under Mr. Jones's care, at St. Thomas's Hospital, with an aneurism of the right subclavian artery. Mr. Jones advised rest, with the application of ice and the use of drugs, but without good result. In the following year the patient was seen by Mr. Hutchinson, who also enjoined rest. In 1868 the patient had an attack of sickness and vertigo, after which the pulsation of the aneurism gradually ceased. Afterwards, in 1877, symptoms of aortic aneurism were developed, from which latter affection the patient died. Post-mortem examination revealed marked atheroma of the aorta and large vessels. The distal part of the subclavian was blocked up with old clot, while the middle part was converted into a fibrous cord. The case was, in Mr. Jones's opinion, clearly one of spontaneous cure; though a leather cap had been worn over the tumour in 1867, there had been no systematic compression.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 24.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

AFTER the President's address (which we elsewhere publish), a vote of thanks to him, and a request that he would allow his address to be printed, was proposed by Dr. SOUTHEY, seconded by Mr. LANGTON, and adopted unanimously.

Dr. SOUTHEY then read the notes of a case of

PLEURITIC EFFUSION, IN WHICH THE LEFT THORAX WAS DRAINED BY A FINE CANULA AND CAPILLARY TUBE.

The patient, a carman, aged twenty-three, of average build, height, and weight, was admitted into St. Bartholomew's Hospital with the ordinary symptoms of pleurisy with effusion upon the left side, of about nine days' duration. He kept to his work until the day before admission to the hospital, and walked upstairs to his ward. On admission his temperature was 102·2°, respirations 24, pulse 80; cough was slight, and the usual symptoms of feverishness. There was absolute dulness of the left lung in front and laterally, and posteriorly as high as the root of the lung, general absence of respiratory sounds on the left side, and increased breathing of the right lung. The patient was ordered an effervescing draught of tartrate of soda with ten grains of nitrate of potash and ten minims of tincture of digitalis every four hours; and a draught containing one-sixth of a grain of morphia at bedtime, if required for sleeplessness or pain. On the second day after admission the feverish symptoms were scarcely changed, the nights were restless, there was frequent cough, and the urine scarcely averaged twenty ounces per diem. The dulness over the left lung extended higher up posteriorly. On the following day one of Dr. Southey's fine canulæ was introduced into the left pleural cavity in the fifth intercostal space in the mid-axillary perpendicular. Clear serous fluid escaped, and was conducted by a capillary drainage-tube to a jar beneath the bed. The man fainted directly the tube was introduced. It remained *in situ* for twenty-eight hours, hurting a little, and was then removed. Four pints of pleuritic fluid, specific gravity 1020, were drained away. The left side was then less dull on percussion; a loud friction rub was audible in front and behind, and bronchial breathing in front, at the side, and behind. There were thus abundant signs of lung-expansion. On the night after the operation the lad had a morphia draught, and slept well, and in the first twenty-four hours passed two pints and a half of urine of specific gravity 1019. The next day the same quantity passed, and on the following day as much as five pints and three-quarters, of specific gravity 1022. The daily quantity of urine during the next ten days varied from forty-five to seventy-five ounces. The saline mixture with digitalis was continued, and full diet with four ounces of wine was given. The temperature gradually fell until it reached the normal range on the fourteenth day after the operation, when the respiratory sounds of the affected lung were all still improving. He left the hospital on the thirty-second day after operation; the left shoulder was then slightly dropped. The percussion-note was good at apex, front, as low as the fifth rib, the axilla, and to the angle of the scapula behind; there was dulness over a hand's breadth at the base of the lung laterally and behind. A rough leathery friction sound was audible in the left suprascapular, intrascapular, axillary, lateral, and infra-mammary regions. The cardiac sounds were normal. Dr. Southey remarked that not a tinge of blood came at any time through the canula; that the side had not been emptied, but simply relieved; and that the renal secretion immediately was more than doubled. He had now tapped the chest five times in this manner, once drawing off nearly twenty ounces of purulent fluid, without any complication or accident, and he commended the proceeding for adoption in the hydrothorax of scarlatinal dropsy, as well as in any pleuritic effusion when the temperature remained high and the urine became progressively scantier day by day. Dr. Southey exhibited the last and best form of his fine drainage trocar and canula, suitable for paracentesis abdominis or thoracis, or the draining of anasarcous legs. The trocar would adapt itself to different lengths of canula by means of a crochet-needle screw holder. The instrument would hold two sets or sizes of trocars and canulæ. A fixed shield was adapted to it, and held the canula *in situ* when it was used through the abdominal or thoracic walls. Dr. Southey had used the instrument in twenty or thirty cases of paracentesis abdominis without any untoward result. Messrs. Ferguson's foreman had gradually improved the instrument for Dr. Southey's trials, and it now seemed quite satisfactory.

Dr. B. YEO asked if there was any danger of establishing a fistulous opening in the chest-wall from the canula being left so long in position; and whether the excessive secretion of urine which followed the operation was really directly due to it, or whether it was not rather caused by the fact that the remaining fluid was absorbed and then re-secreted by the kidneys. The friction sounds appeared to show that the bulk of the fluid was removed by the operation itself in Dr. Southey's case.

Dr. C. T. WILLIAMS inquired if the drugs, the nitrate of potash and digitalis, were omitted after the operation. He also asked what voice-sounds were heard after the paracentesis. He had used the fine canula with the greatest benefit in cases of anasarcous limbs.

Dr. D. POWELL presumed that, although Dr. Southey had in one case of empyema used the fine trocar and canula, yet that he would not advocate its general use in that condition. He thought it was not well to retain a tube in the chest for twenty-eight hours, when the fluid might be removed during one short operation of a few minutes' duration. He inquired whether possibly the increase of urine might not have been due to mental emotion. What was the specific gravity of the urine so passed?

The PRESIDENT remarked that Dr. Southey had laid stress on the fact that it was not frequent to hear the friction-sounds after his method of operation, but he (the President) had often heard them when the operation had been done in the usual manner.

Mr. HUTCHINSON desired a little more information of the drug-treatment in the case. Surgeons seemed now to be going after drugs, whilst physicians had recourse to surgical procedures. His own feeling had been to rely more upon iodide of potassium and properly adjusted doses of mercury.

Mr. PARKER could not look upon Dr. Southey's operation as free from inconvenience to the patient. An ordinary fine trocar would draw off the fluid in ten minutes as well as Dr. Southey's trocar in three or four days. He had often tapped the chest in children, and had not seen them faint.

Dr. SOUTHEY said that adults fainted after the operation much more frequently than did children. The canula in his case was only running for twenty-four hours. An ordinary aspirator would draw off the fluid more rapidly, but was very apt to end by drawing off blood, which might or might not be prejudicial to the patient. His operation was a little longer, but more safe. Only a portion of the fluid, enough to relieve the pressure, was usually removed, and the remainder was left to nature. He had often heard the friction-sound produced after the withdrawal of a larger canula. Usually, however, it was only audible in front; but in this case it was heard in three situations, showing that the expansion of the lung had taken place in all three directions. The saline draught of nitrate of potash and digitalis had been continued from the first whilst the patient remained in hospital. The pulse fell from 100 to 60 and 50 beats in the minute, and the urine at the same time increased. He had often noticed the contemporaneity of the two events. He should not employ that method of treatment if he knew that the fluid in the chest were purulent, though in one case, where the fluid turned out to be pus, he had drawn off a pint of it in six hours. As to the vocal sounds, there were vocal vibrations heard over the upper part of the lung, and œgophony was audible before and after the operation. No vocal vibrations were heard at the base of the lung; but there was dulness at the base even when the patient left the hospital. He had remained at work since then until now, with a small fistulous opening in the side, which still discharged a small quantity of fluid. He felt occasionally a little troubled; then a kind of boil would appear at the fistulous opening; this would open and discharge a little clear fluid, and the patient again became better. Usually there was not much chance of a fistulous opening resulting from this operation.

DISEASE OF THE SPINAL ACCESSORY NERVE.

Dr. ALTHAUS then read a case of disease of the spinal

accessory nerve. The patient was a married lady, aged fifty-three, in whom spasm of the sterno-cleido-mastoid and trapezius muscles of the left side had come on, apparently in consequence of mental anxiety. The spasm was incessant, the patient being unable to keep the head steady for a single instant. The head was chiefly pulled to the side and backwards, while the top of the shoulder was raised and the shoulder-blade approached the spine; but there was also nodding of the head, the ear being approached to the collar-bone, the occiput depressed, and the chin raised and directed to the opposite side. Muscular rest was only obtained during sleep, but the jactitation commenced again on waking in the morning. The patient was, in consequence of this, utterly disabled from following her usual occupations, and the general health suffered, but there was no trace of any other disease. The treatment consisted of the application of the voltaic current to the suffering nerve, the internal use of bromide of potassium, cannabis indica, and belladonna, subcutaneous injections of arsenic and morphia, and external use of chloroform liniment; but this treatment remained ineffectual, although some temporary relief was afforded. Dr. Althaus did not think that there was any structural disease, but that the change in the nervous matter was molecular. In other cases which had come under his notice the result of the treatment had also been unfavourable; but seeing that good results have followed the operation of nerve-stretching in other spasmodic affections, he suggested stretching of the spinal accessory nerve for any obstinate case in which the patient might be determined to seek relief.

Dr. Sturge had seen five cases. In one of these disseminated sclerosis had involved the origin of the spinal accessory nerve of the right side. In another case, the patient, a woman aged thirty-two years, had met with reverses, became melancholic, and was placed in an asylum, where she recovered. The chronic torticollis also almost disappeared, though slight causes, such as indigestion, would bring it on again. In two other cases, the torticollis was associated with clonic spasms of the arm of the affected side. Both improved whilst in hospital, but subsequently receded.

Mr. Morrant Baker had in one case proposed to divide the spinal accessory nerve, but the patient left before the treatment was adopted.

Mr. Parker mentioned a case under the care of Mr. Rivington, who had excised a portion of the spinal accessory nerve of the same side, with temporary benefit, the patient afterwards receding. The portion of excised nerve was affected with disseminated sclerosis.

Dr. F. Taylor had treated a patient with the constant current for a short time at each sitting, bromide of potassium being also given. The medicine was then stopped, and the galvanic treatment alone continued. The benefit was great, and the patient when last seen was free from the twitching movements. Dr. Poore had recorded a case which was cured by the same treatment.

Dr. Mahomed inquired if the platysma was also affected. It was so in a case now in Guy's Hospital under Dr. Wilks, which was being relieved by the use of the constant current. On a former occasion a guttapercha splint had been fitted on without benefit.

Dr. Althaus said that the platysma was not affected. The disease had remained perfectly local, not spreading beyond the spinal accessory nerve to the spine. Spinal sclerosis had not supervened.

Laceration of the Diaphragm from Distension of the Stomach.—In Eulenburg's *Vierteljahrschrift*, Band xxix., is related the case of a man, about thirty years of age, who, having eaten a large quantity of food containing vinegar, and taken after it repeated doses of bicarbonate of soda, was seized with violent pain in the abdomen and faintness, and died suddenly. An autopsy having been made, under the suspicion of poisoning, a rupture of the diaphragm, about twenty-five centimetres in length and fifteen in breadth, was found, detaching the diaphragm from the right side of the ribs to the spinal column, and allowing the passage of the intestines and liver into the right cavity of the chest. The stomach resembled an immense bladder distended with gas. The half-digested food had been inspired into the air-passages in large quantities.—*Centralbl.*, January 4.

OBITUARY.

Rev. PEYTON BLAKISTON, M.A., M.D. Cantab., F.R.S., F.R.C.P. Lond.

Dr. Peyton Blakiston, whose sudden death we briefly recorded in our issue of December 21, last year, was the seventh and youngest son of Sir Matthew Blakiston, Bart., of Sandybrooke Hall, Derbyshire. Born in 1801, he was educated at Eton, went thence to Trinity College, Cambridge, and afterwards migrated to Emmanuel College, where he was elected to one of the Dixie Fellowships. Though always taking a great interest in medical studies, he entered into holy orders, and, after holding a curacy at Bilton, in Warwickshire, he became vicar of Lymington, which preferment he held for some years—1830 to 1833. While there, besides being most active and diligent in his clerical duties, he originated and zealously supported a dispensary on the provident system. In this latter institution he ever after took a special interest, and it still flourishes in a much extended form. His health before long, however, gave way under the multifarious duties he imposed upon himself, and, suffering from an affection of the lungs, he resorted to Paris, and placed himself under the care of Louis. Finding that he did not perfectly recover, and that Louis "could not promise that he would ever again be able to preach in a large church," Dr. Blakiston, with a decision, and a confidence in his own powers, highly characteristic of him, determined to retire from the profession of Divinity, and enter the sister learned profession of Medicine. Though he was already married, and had children, he resigned his living, and, returning to Cambridge, applied himself, with all his wonted and remarkable energy and perseverance, to medical studies there, and afterwards in Paris. While in Paris he displayed much diligence and courage in the study of cholera, examining thoroughly the bodies of great numbers of the victims to that disease; but his attention was most strongly directed—by his own illness probably, and by the influence of Louis—to the study of diseases of the chest, by his large and accurate knowledge of which maladies his future reputation was mainly gained. After obtaining his first diploma he chose Birmingham as his field of practice; and for the following notes on his career there we are indebted to a well-known surgeon who was one of his friends and colleagues.

"When Dr. Blakiston first came to Birmingham, he, like all the young physicians of the period, adopted the practice of giving gratuitous advice to the poor. To this labour he devoted himself with an energy and kindness that deservedly won for him great popularity. Shortly afterwards he was elected as one of the Physicians to the Birmingham General Dispensary, where he did good work, and followed up his cases zealously, so as to lay the foundation of that reputation which subsequently introduced him into remunerative professional practice. During this period he connected himself with a literary and scientific society which embraced most of the notabilities of the town, and which held its meetings at the 'Philosophical Institution.' It was the custom for those members who held special scientific knowledge, to impart it in lectures to the Society, and Dr. Blakiston at different periods delivered lectures on chemistry, and on physical science as applicable to the investigation of disease. In carrying out the latter object, he did much to explain with singular clearness the laws of sound upon which the introduction of the stethoscope into medical practice was based. Subsequently, in 1841, he was appointed one of the Physicians to the Birmingham General Hospital, an office in which, aided by the co-operation of many of our most promising and advanced students, he carried on a large amount of clinical and pathological observation.

"He had the happy art of cultivating young men of ability, of showing that he estimated their powers, and of inciting them by discussion and debate to renewed effort and further progress. Amongst the men who were his frequent visitors and companions were the late William Allen Miller, who became Professor of Chemistry at King's College; William Bowman, still happily left to us; Dr. James Russell, the present Senior Physician to the Birmingham General Hospital; and others who have passed out of my memory."

"In reviewing his career, so far as it is known to me, my general impression is, that, considering that his study of

medicine was begun late, and after a previous career of some years in the Church, he was exceptionally accurate and broad in his views of medical science; that his attainments were sound and his mental grasp was large; his insight into disease penetrative, and his suggestions as to therapeutic and other means of treatment thoughtful and often original. He was a keen medical physicist, and this characteristic made him a careful investigator and diagnostician."

Dr. Blakiston's first medical publication was "A Treatise on the Influenza of 1837." This was a pamphlet containing "an analysis of one hundred cases observed at Birmingham between January 1 and February 15"; and in it he gave a definition of the disease, and an outline of its treatment, which were accepted and adopted by Dr. Graves. He was at that time only a Licentiate in Medicine of the University of Cambridge, and Physician to the Birmingham Dispensary and the Magdalen Asylum. In 1841 he took his M.D. degree, and was elected Physician to the Birmingham General Hospital. In 1848 he published his first great medical work, "Practical Observations on certain Diseases of the Chest, and on the Principles of Auscultation," which he dedicated to Louis, his master, and to William Bowman, F.R.S., and William Allen Miller, M.D., F.R.S., his "valued friends and former clinical pupils." The study of diseases of the chest was then, under the powerful impulse given to it by Lænnec and Louis, a popular field of investigation with many physicians, and Dr. Blakiston was one of the most able and acute of these workers. Besides containing very instructive chapters on the principles and practice of auscultation, his book is a highly valuable clinical record, giving the notes of 120 most carefully observed and recorded cases of disease of the lungs, heart, and thoracic aorta. He insisted specially on the great importance of tricuspid regurgitation, and on its existence "in almost every case of obstruction of the vessels of the general circulation originating at the heart"; coming to the conclusion that it "is the most direct and almost *constant* cause of that engorgement of the vessels of the general circulation, and its consequences, which originate with the heart."

In 1843 Dr. Blakiston became a Fellow of the Royal College of Physicians, and in the same year he was also elected a Fellow of the Royal Society. In 1848 the state of his health necessitated his seeking a milder climate than that of Birmingham, and he moved to St. Leonards-on-Sea, in which popular health-resort he enjoyed a large and valuable practice till his retirement from professional work in 1871. While at St. Leonards he published, in 1865, a valuable volume of "Clinical Observations on Diseases of the Heart and Thoracic Aorta." This work gave the observations and experience of some thirty years' extensive practice, told in simple, clear, and forcible language, without any superfluity of phraseology, or "darkening of counsel with words." In the introduction to the work, Dr. Blakiston gave the results of his experience of the use of stimulants in acute diseases, he having been one of the earliest to recognise the value and great importance of their aid. He was led to begin the use of them by his observations of the influenza in 1837, and cautiously felt his way to their free and extensive employment; and, summing up his experience, in 1865 he declared, among other conclusions, that "the administration of stimulants was found advantageous in the great majority of acute diseases"; that "the earlier they were given, the less was the amount required in the course of the illness," and that "in no case was a habit of drinking known to be induced, and very rarely was any chronic disease seen to arise out of the acute attack." We may add that Dr. Blakiston always asserted that he gave alcohol "not as a nutriment or food," but "as a medicine."

In 1871, as has been said, Dr. Blakiston retired from active practice, and took up his residence in London, where he lived almost entirely during the remainder of his life, taking always great, and sometimes active, interest in the doings and the troubles of both of the professions to which he belonged, in sanitary work, and in scientific progress. In 1877 he published also a volume of lectures on "Modern Society in its Religious and Social Aspects"; and early in 1878 he republished in a small volume, with some remarks on public health and on the tendency of medical studies, a series of "Clinical Reminiscences" (first published in our pages in 1875), written in an admirably clear and refined style, and full of acute remarks, of accurate observations, and of the wisdom of ripe experience. This was his last contribution to medical literature; and he died suddenly on December 17 last year.

Throughout his long career Dr. Blakiston was active and energetic in promoting the best interests of many men who have risen to eminence in our profession, and in always endeavouring to uphold the highest views of the work and aims of the profession rather than to win popular favour and applause. To what we have said now, and in our former notice, of his character and powers, we will only add, in the words of the colleague whom we have already quoted, that the training and studies of a university career, and his active work as a clergyman, "appear to have enlarged his sphere of thought, developed his judgment, and increased his power of reducing principles to their correct application to practice. His keen wit, sense of humour, general geniality, and occasional sharpness of retort, were well known."

MEDICAL NEWS.

UNIVERSITY OF DURHAM.—At the first examination for the degree of Bachelor of Medicine at the College of Medicine, Newcastle-upon-Tyne, on January 22, 23, 24, and 25, the following gentlemen satisfied the examiners (and four failed to pass):—

Bedford, Walter George Augustus.
Black, William Glaholm.
Bowman, Hugh Torrington.
Burton, Francis Henry Mercerom.
Crick, Samuel A., M.R.C.S., L.S.A.
Davis, William Henry.
Robinson, Charles William.
Stubbs, Charles Pickering.
Trewman, George Turner.
Tyson, Wm. J., F.R.C.S., L.R.C.P.
Willis, Chas. F., M.R.C.S., L.R.C.P.
Woodman, W. E., M.R.C.S., L.S.A.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 23rd inst., viz.:—

Davies, Evan E. C. C., Pontfaen, Lampeter, student of the London Hospital.
Elliot, Henry, Cullercoats, Northumberland, of the Newcastle School.
Forsbrook, William H. Russell, L.S.A., Loughborough-road, of the Westminster Hospital.
Gayton, Francis C., L.S.A., Much Hadham, of St. Bartholomew's Hospital.
Hann, Henry F., Argyll-square, of University College Hospital.
Lory, William J., Stoke Damerel, of University College Hospital.
Mason, William H., Leeds, of the Leeds School.
Nicod, Louis C. N., L.S.A., Ealing, of St. Mary's Hospital.
Payne, Charles A., L.S.A., Lewisham, of St. Bartholomew's Hospital.
Smith, Herbert A., L.R.C.P. Edin., Windsor, of the Middlesex Hospital.
Walds, Frederick J., Clifton, Bristol, of St. Bartholomew's Hospital.
Weston, Samuel T. D., Halesowen, of the Birmingham School.
Wharry, Arthur J., Old Charlton, of St. Bartholomew's Hospital.
Williams, Alexander L., Kensington, of St. George's Hospital.
Young, Campbell L., Pembroke-square, of the Bristol and St. Thomas's Hospitals.

The following gentlemen passed on the 24th inst., viz.:—

Collier, Mark P. M., L.S.A., Turnham-green, student of St. Thomas's Hospital.
Freeman, William T., Burnham, Norfolk, of St. Bartholomew's Hospital.
Griffiths, Herbert T., Devonshire-place, W., of St. George's Hospital.
Hall, John L., L.S.A., Porchester-gate, of St. Thomas's Hospital.
Layton, Henry A., Highbury-grove, of University College Hospital.
Morrison, James T. J., Plumstead, Kent, of Guy's Hospital.
Preston, Alfred C., Swaffham Prior, Cambridge, of St. Bartholomew's Hospital.
Vores, Arthur, Great Yarmouth, of St. Thomas's Hospital.
White, Richard W., Blakeney, Gloucestershire, of Guy's Hospital.

The following gentlemen passed on the 27th inst., viz.:—

Congreve, George T., L.S.A., Peckham, student of King's College Hospital.
Fuller, Thomas W., New Shoreham, Sussex, of Guy's Hospital.
Giles, Frederick W., Henley-on-Thames, of St. Thomas's Hospital.
Greathead, John B. S., Graham's Town, Cape of Good Hope, of St. Bartholomew's Hospital.
Jenkins, John H., L.R.C.P. Edin., Cheltenham, of the Bristol and Aberdeen Schools.
Leatham, Henry B., L.S.A., New Plymouth, New Zealand, of St. Thomas's Hospital.
Miller, Herbert P., Stoke Newington, of University College Hospital.
Ogle, Charles John, L.S.A., Hunter-street, Brunswick-square, of St. Bartholomew's Hospital.
Price, Edward M., Bridgend, Glamorganshire, of University College Hospital.

With this meeting the pass examinations were brought to a close. Out of the 136 candidates examined, sixty-five obtained their diplomas; twenty-eight were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and forty-three having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

APOTHECARIES' HALL, LONDON.—At the Preliminary Examination in Arts, held at the Hall on January 24 and 25, eighty-eight candidates presented themselves, of whom twenty-five were rejected, and the following sixty-three passed and received certificates of proficiency in general education, viz., in the First Class, in order of merit:—

1. Arthur Henry Gordon and Frances Harris. 3. M. Adler, H. G. Blackmore, A. G. Francis, G. F. Pollard, H. G. L. Stevens, F. J. Stevens, and A. O. Ward.

In the Second Class, in alphabetical order, viz.:—

R. Andrews, W. A. H. Barrett, H. W. R. Bencraft, E. H. Brookes, H. Buckland, J. L. C. Cox, W. P. Davis, A. E. Dodson, H. W. G. Doyne, N. I. Edghill, F. G. Ellerton, W. M. Ellis, F. Eschauzier, J. B. Fowler, P. G. Gilmour, W. P. B. Goodridge, J. E. R. Grant, C. A. Griffith, M. Hailey, G. V. Hewland, W. P. Hilliam, Clara S. Hopgood, E. Jessop, Philip Johnson, J. M. B. Joyce, H. A. Kent, F. W. Kerkham, W. B. Laurie, E. E. Lefroy, C. W. Low, W. O. Magoris, G. L. Moore, W. A. de A. Norris, H. L. Parry, Allan Perry, J. M. S. Preston, J. S. Robertson, A. H. Roosmale-Cocq, S. Rumboll, H. T. D. Ryder, H. A. Seagrove, R. G. Silverlock, Albert Smith, S. D. Stilwell, F. J. Stone, F. H. Taylor, A. J. Turner, E. M. Tyrrell, B. Volckman, Emma M. Walker, G. Wale, A. M. Whitehead, A. R. Willson, and J. C. Young.

The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 23:—

Gilder, Sherrington Ernest Alfred, Barnsley, Yorkshire.
Hall, William Henry, Woodlands, Caterham.
Leatham, Henry Blackburn, New Plymouth, New Zealand:
Sayer, Tom, Swaffham, Norfolk.

The following gentleman also on the same day passed his Primary Professional Examination:—

Bennett, Deane, St. Mary's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BLAKER, T. F. J., M.R.C.S., L.S.A.—Honorary Surgeon to the Brighton and Hove Lying-in Institution.

NAVAL, MILITARY, &c., APPOINTMENTS.

WAR OFFICE.—Surgeon Charles Frederick Richards, M.B., to be Surgeon-Major. Surgeon James Creed is placed on temporary half-pay. Deputy-Surgeon General John Andrew Woolfryes, M.D., C.B., to have the local rank of Surgeon-General while serving as Principal Medical Officer at the Cape of Good Hope.

BIRTHS.

BATEMAN.—On January 21, at Whitchurch, Oxon, the wife of Francis Bateman, M.B. Lond., of a son.

BLAKE.—On January 23, at Bishopstone, Moseley, near Birmingham, the wife of George Francombe Blake, M.R.C.S. Eng., of a son.

DALY.—On January 24, at 101, Queen's-road, Dalston, the wife of Fredk. H. Daly, M.D., of a daughter.

LAWTON.—On January 22, at Poole, Dorsetshire, the wife of Herbert A. Lawton, L.R.C.P. Lond., M.R.C.S. Eng., of a son.

LONGHURST.—On January 29, at 22, Wilton-street, Grosvenor-place, S.W., the wife of Arthur E. T. Longhurst, M.D., of a son.

SCOTT.—On January 22, at Shirley Lodge, Southampton, the wife of R. R. Scott, L.K.Q.C.P. Ire., Surgeon-Major A.M.D. (Retired), of a daughter.

MARRIAGES.

HUTTON—HALL.—On January 22, at North Collingham, Notts, Robert James Hutton, L.R.C.P. Lond., of 240, City-road, London, to Catherine Ann, second daughter of John Hall, Esq., J.P., of Lincoln, and Rutland House, North Collingham.

PLUME—MARSHALL.—On January 23, at Norwich, the Rev. Henry Plume, B.A., Chaplain to the Bishop of Queensland, to Eleanor, third surviving daughter of F. W. Marshall, M.B., M.R.C.S., of Beechwood Lodge, Eaton, Norwich.

WILLIAMS—HUGHES.—On January 9, at Portobello, Neville Williams, M.B., B.A. Cantab., Harrogate, to Annie Jane Eliza, only daughter of Major H. J. Hughes, Victoria-terrace, Portobello.

WING—GRACE.—On November 27, at Melbourne, Edgar Wing, of Claremont, Clarence Plains, Tasmania, to Victoria, youngest daughter of J. F. Grace, M.D., M.R.C.S.E., of Melbourne.

DEATHS.

KNOTT, FANNY, wife of Wm. Knott, late 6th Dragoons, at Harwich, on January 26, aged 76.

MALAN, HENRY VICTOR, M.D., at Montreux, Switzerland, on January 23, aged 62.

ROBERTSON, ELIZA, wife of W. H. Robertson, M.D., of Buxton, at Montpelier, France, on January 20, in her 62nd year.

SHUTE, ROBERT, M.R.C.S., at 13, Sutton-place, Edinburgh, on January 27, aged 85.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified and registered. Further information may be obtained from Dr. Aitken, Medical Superintendent, to whom testimonials must be forwarded not later than February 8.

LONDON HOSPITAL.—House-Surgeon. Candidates must possess a surgical diploma qualifying for registration; and no student will be considered eligible who has not served in the office of clinical clerk for six months, and of in-patient dresser for a minimum period of nine months. Applications, with qualifications and testimonials, to the House-Committee before noon on February 4. Candidates should also attend personally on that day at two o'clock precisely.

NORTH-WEST HOSPITAL FOR DISEASES OF WOMEN AND CHILDREN, KENTISH TOWN-ROAD, N.W.—Honorary Physician. Candidates must be graduates of a University, and registered. Applications, with testimonials, to be sent in on or before February 1.

RICHMOND INFIRMARY.—House-Surgeon. Candidates must possess a medical and surgical qualification and be registered under the Medical Act. Applications, with copies of (not more than six) testimonials, to the Secretary, the Infirmary, Richmond, Surrey, on or before February 15, from whom any further information may be obtained.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. Candidates must have a qualification in medicine and surgery from one or other of the Colleges of England, Scotland, or Ireland. Applications to Mr. J. B. Shepherd, Hon. Sec., the Dispensary, Stourbridge, on or before February 8.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Applications, with testimonials, to the Hon. Secretary, Tiverton.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Candidates must be surgically qualified, registered, and unmarried. Applications, stating age, etc., with testimonials, to the Hon. Sec., P. D. Bennett, Esq., 13, Church-road, Edgbaston, Birmingham, on or before February 5.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Kingston Union.—Mr. Brunton has resigned the Radnor District; area 25,868; population 3030; salary £97 per annum.

Tiverton Union.—Mr. McClure has resigned the Cadbury and Cadeleigh District; area 4090; population 576; salary £27 per annum.

Todmorden Union.—Mr. William Thomas has resigned the Townships of Wadsworth and Erringden; remuneration 6s. per case.

APPOINTMENTS.

Basingstoke Union.—James F. Walker, L.K.& Q.C.P. Ire., L.R.C.S. Ire., to the Sixth District.

Bedwellty Union.—Thos. H. Redwood, M.D., M.C., M.R.C.S., L.R.C.P., to the Rhymney District.

Central London Sick Asylum District.—John Hopkins, M.R.C.S. Eng., L.S.A., as Assistant Medical Officer and Dispenser at the Cleveland-street Asylum.

Drayton Union.—Edward T. Prior, M.R.C.S. Eng., L.S.A., to the Ashley District.

Eton Union.—Thos. M. Parrott, M.R.C.S. Eng., L.S.A., to the Hedgerley District.

Flint.—Wm. Foulkes Lowe, F.C.S., as Analyst for the County.

Maidenhead.—Walter Pearce, F.C.S., B.Sc. Univ. Lond., as Analyst for the Borough.

Maldon.—John Whitmore, M.D., as Analyst for the Borough.

Rochdale.—Mr. Thos. A. Collinge as Analyst for the Borough.

Romsey Union.—Francis Buckell, M.R.C.S. Eng., L.S.A., to the First District and the Workhouse.

St. George's Union.—Henry W. Webster, M.R.C.S. Eng., L.R.C.P. Edin., to the Fulham-road Workhouse.

MISS BOOTH, of Hackney, has left by her will donations of 300 guineas each to the following charities:—The Cancer Hospital, Piccadilly; St. Mark's Hospital for Fistula, City-road; the North-Eastern Hospital for Children, Hackney-road; the North London Hospital for Consumption and Diseases of the Chest, Hampstead; the City of London Truss Society; the Margate Infirmary; the Medical Benevolent Institution, Epsom; the Stoke Newington Dispensary; the Surgical Aid Society, New Bridge-street; the British Home for Incurables, Clapham-rise; the National Hospital for the Paralysed and Epileptic, Great Ormond-street; and some others.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

H. L.—The average alcoholic strength of the various liquors you mention will be found in Parkes's "Hygiene." Unfortunately we have not a copy at hand to insert the information for you.

Dr. Williams.—In another page you will see a notice of the frozen sections of the human subject, after the manner of Pirogoff, Braune, and others. Write to Professor Flower, the Conservator of the Museum, from whom we are sure you will receive the desired information.

A Metropolitan Teacher.—Yes, it is, as you say, lamentable; as no less than *forty-one* candidates were rejected, viz., twenty-three for the first time, thirteen for the second time, two for the third time, and three for the *fourth time*.

F.R.C.S. Eng., Guy's.—Plenty of time, as the annual election does not take place until July next. We must refer you to the *Medical Times and Gazette* for a report of the election in July last. On that occasion 307 Fellows recorded their votes, when Mr. Thomas Bryant received 62 votes, including six plumpers.

Ignoramus.—The 31st ult. was the last day for sending in essays for the Jacksonian Prize.

Dermatologist.—The following will be the subject of Professor Hutchinson's lectures at the Royal College of Surgeons:—"On Certain Diseases of the Eye, Skin and Joints, which are produced through the influence of the Nervous System."

*** We give the following for what it is worth, but, in the words of the poet, "Them's none o' ourn views":—

WINE AND WATER.(a)

THE doctor 's ill: some people say
He likes his wine, and every day;
But now, that he may cure himself,
He leaves his wine upon the shelf.
How strange it is this precious wine,
Which men regard as half divine,
Which often kills and never cures,
And e'en a doctor now abjures,
Should do so little good in use,
And oh! such mischief in abuse.

Wise man, the doctor; let him tell
The quickest way of getting well.
He lets the sherry-bottle pass
(Though sighing at his empty glass),
He puts aside the bright champagne
(Though longing for a taste again),
And takes to water. How it sounds!
But soon he's out upon his rounds;
And let us hope the honest man
Will preach and practise Nature's plan,

And when he has to recommend
A healthful beverage to a friend,
His portly form and beaming face,
His merry laugh and ready pace,
Will be the best prescription, sure,
And more than half-way to the cure.
For all will soon the secret tell,
And sing the praise of *water* well.
And so with this I end my say—
God bless the doctor every day!

CROUP AND DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The old idea of the possible identity of diphtheria and scarlet fever was, I think, much more reasonable than the present attempt to establish the identity of croup and diphtheria—these two diseases seeming to me different in almost every respect. In croup, the false membrane being removed, the mucous membrane underneath appears healthy; whereas in diphtheria the mucous membrane is ulcerated, a raw bleeding surface remaining. Diphtheritic inflammation may attack any mucous membrane, of course that of the trachea and larynx included. This is not the case with croup, which comes in the trachea and larynx only. In my experience diphtheria is infectious, so that I should feel very uncomfortable should a piece of the false membrane get into my own mouth. A short time ago I heard of a doctor getting the disease through a patient vomiting in his face whilst he was applying a lotion to the throat of the patient. I should have no fear of this kind for myself or others in a case of croup. In croup at its commencement fever is a prominent symptom, not depression. Emetics followed by small doses of ipecacuanha often do good, and in favourable cases recovery is very rapid, the child being well again in a few days. In the cases of diphtheria that have come under my notice, *extraordinary depression of the vital powers* has been present from the very commencement, even young children taking very large quantities of stimulants with great advantage; but in all cases the complete recovery has been slow. In croup I am inclined to think tracheotomy may save a patient's life in some cases; but in diphtheria I should say it would very seldom be of any use, on account of the very depressed state of the whole constitution. I am, &c., HERMANN J. JONES, M.D.

58, Blenheim-crescent, W.

Cambridge University.—The Board of Medical Studies have recommended that a statute be obtained, empowering the University to grant the degree of Bachelor in Surgery, and that in future the names of the successful candidates for the degree of M.B. be divided into two classes, the names to be placed in alphabetical order in each class. The Board think that this course would tend to encourage increased diligence among the students.

Sanitary Reform.—The recent annual report of the Manchester and Salford Ladies' Sanitary Reform Association shows that a great amount of work has been done in the various districts. It was not possible to help noticing the close connexion between dirt and drink. Intemperance seemed to destroy ordinary sensibilities, and to make it possible for people to live with apparent contentment in a state of filth and wretchedness most distressing to behold. This Association and the Manchester and Salford Sanitary Association were about to amalgamate so far as regarded their work. Arrangements had been made by which several of the medical members would deliver addresses upon sanitary matters in the different districts.

(a) No heading was sent by the author—a clerical friend of the doctor.

River Pollution.—The active measures which are so generally being taken under the Rivers' Pollution Act to remedy the long-neglected purification of our rivers are satisfactory. Two actions were recently brought against the Corporation of Colchester, by two owners of mills on the river Colne, for permitting the sewage of the town to flow into the river, thereby causing a nuisance. In consequence of an arrangement, the proceedings were stayed for two years, to allow the Corporation time to decide on a scheme for intercepting the sewage.

Sanitary Improvements.—The Local Government Board has sanctioned the borrowing by the Birkenshaw Local Board of £3800 for water-supply purposes. The York Board of Guardians has resolved to borrow £3000 for various improvements and extensions at the workhouse. The work undertaken by the Croydon Rural Sanitary Authority for sewering that portion of their district comprising Beddington, Merton, Merton Rush, Mitcham, Morden, and Wallington, was inaugurated last December, by laying the memorial stone of the new pumping-station in Byegrove Mead, within a mile of Lower Merton Station. The scheme includes the construction of thirty-six miles of sewer, all of which are within existing or contemplated roads. The sewage from two-thirds of the whole district will be dealt with by gravitation, and the remaining third will be pumped to a height of about twenty feet. The whole of the sewers of the *Dreadnought* Seamen's Hospital, Greenwich, have been ventilated and trapped upon a plan approved by Mr. Robert Rawlinson, C.B.

Practical Cookery Lessons.—The Cooks' Company, London, has, at its own expense, for the last two years given to four series of girls selected from the ward schools of the City a course of sixteen lessons in the elementary principles of cookery, at the National Training School of Cookery, South Kensington, with great success. In all about fifty pupils from the City ward schools have thus been instructed, and the Court are about to consider what further action they can take to promote and extend this useful domestic knowledge.

Medicine and Republicanism in France.—A correspondent writes that "Medicine and Republicanism seem to go together. There is already a fair sprinkling of doctors in the French Chambers, most of them sitting on the left, and two more are now candidates—M. Lannelongue, who is opposing M. de Cassagnac at Condom; and M. Lemarquet, M. de Mun's opponent at Pontivy."

A Commendable Enterprise.—The Exeter Freehold Land Society, a short time since, purchased a block of dilapidated and overcrowded dwellings in Rock-street, and, having removed a portion of these buildings, they are about to erect some new dwellings for the artisan class. It is proposed to erect eleven houses at a cost of about £170 each.

Drunkenness in Public-houses.—Mr. De Rutzen's experience of the way public-houses in the Marylebone police district are conducted, and of the futility of imposing fines alone on publicans for encouraging drunkenness in their houses, which he states was winked at by them, has led him to the determination, in all future similar cases, to inflict an additional punishment, which, in view of its probable future consequences, will, we should hope, be the means of checking a traffic to be deprecated on the part alike of the supplier and of the consumer. Mr. De Rutzen stated, a few days since, that he had done all he could to put a stop to drunkenness in public-houses. In the case before him he should impose a fine of £10, and order the licence to be endorsed; and in all future cases that came under his notice, which were as plainly made out as that was, the conviction would be recorded on the licence.

A Medical Prize Essay.—An offer is made by the Committee of "The Parkes Memorial Fund," to the medical officers of the Army, Navy, and Indian Services, of a prize of £100 in money, and a gold medal, for the best essay on "The Effects of Hygienic Measures in Arresting the Spread of Cholera." The competition is open to all officers on full pay, except assistant-professors of the Army Medical School during their term of office; and the essays will be received by the Director-General of the Army Medical Department up to December 31, 1880.

The Medical Witnesses Act.—The attention of the Home Secretary has been called to a difference which has arisen between the Oxford City Coroner and the medical officers of Radcliffe Infirmary. The Home Secretary has been requested to give an authentic interpretation of the Medical Witnesses Act, and to compel the Coroner for the city to call the House-Surgeon when a medical witness is required, instead of the medical officer who attends the patients.

Food Importations.—We recently noticed the Canadian exportation of cattle to this country during the past year. It has been subsequently announced, in a letter from Ottawa, that the Dominion is likely to send us, in future, supplies of live stock on a scale hitherto unknown. It is stated that 250,000 head of cattle and 250,000 sheep are at present being stall-fed in the province of Ontario for shipment to British ports in the spring. This is good news to the British consumer, and the effect of such heavy supplies in our markets must be to bring down prices.

Open Spaces.—It is stated that the final difficulty in the way of preserving Plumstead Common is at length removed, and, as soon as the transfer of the land to the Metropolitan Board of Works is completed, the necessary alterations will be immediately commenced to make the new ground a suitable place for recreation.

COMMUNICATIONS have been received from—

Dr. E. H. Greenhow, London; Mr. W. R. Poole, London; Dr. J. Hughlings-Jackson, London; Mr. B. R. Wheatley, London; Mr. J. Chatto, London; Dr. Ferrier, London; Mr. T. M. Stone, London; Dr. J. Matthews Duncan, London; Mr. D. Colquhoun, London; Dr. Norman Chevers, London; Dr. F. W. Pavy, London; Mr. E. L. Hussey, Oxford; Mr. Trevan, London; Dr. Hermann J. Jones, London; Mr. R. C. Lucas, London; Mr. J. Hamilton Craigie, London; Mr. S. S. Foster, Worcester; Mr. H. G. Velhoven, London; Major F. Duncan, R.A., Woolwich; Dr. Thomas Barlow, London; Dr. Luke Armstrong, Durham; Mr. R. W. Parker, London; Dr. Robert Druitt, London; Dr. J. W. Moore, Dublin; Mr. Jonathan Hutchinson, London; Dr. Robert Lawson, Edinburgh; Mr. Malcolm A. Morris, London; Mr. Henry Lupton, Stratford-on-Avon; The Registrar of Apothecaries' Hall, London; The Registrar-General, Edinburgh; The Hon. Secretary of the Epidemiological Society, London; Mrs. Weldon, London; Dr. J. Williams, London; The Registrar of Durham University; Dr. Edward I. Sparks, Mentone.

BOOKS AND PAMPHLETS RECEIVED—

Local Government Board Annual Report; Supplement containing the Report of the Medical Officer for 1877—Peter Shepherd, M.B, Handbook describing Aids for Cases of Injuries or Sudden Illness—Classified Directory to the Metropolitan Charities for 1879, by W. F. Howe—James Johnson and J. Henry Johnson, Al..C.E., The Patentee's Manual—Peter Hood, M.D., A Treatise on Gout, Rheumatism, and the Allied Affections, second edition—Henry Watts, B.A., F.R.S., F.C.S., A Dictionary of Chemistry, third supplement, part 1—Henry Carr, M.Inst.C.E., Our Domestic Poisons; or, the Poisonous Effects of certain Dyes and Colours used in Domestic Fabrics—F. S. de Carteret-Bisson, M.A., Captain 1st Regt. R.J.M., Our Schools and Colleges.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—El Siglo Médico—Révue Médicale Française et Etrangère—Chicago Medical Journal and Examiner—Canada Lancet—Giornale Internazionale delle Scienze Mediche—North Carolina Medical Journal—Gazzetta Medica Italiana—New Preparations.

APPOINTMENTS FOR THE WEEK.

February 1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. H. G. Seeley, "On Reptilian Life."

3. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Third Letteomian Lecture—Dr. J. C. Thorowgood, "On Bronchial Asthma: Treatment of Asthma."

Odontological Society, 8 p.m. Inaugural Address by the President, Mr. Edwin Saunders. Casual Communications by the President, Mr. H. Moon, and Mr. S. J. Hutchinson.

4. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Dr. F. Taylor—Spinal Cord from a Case of Infantile Paralysis. Dr. Turner—Acute Myelitis in an Infant. Dr. Humphreys (of Manchester)—Sections of the Cord from Cases of Infantile Paralysis. Dr. R. Crocker—1. Warty Growth on the Tricuspid Valve, with Mitral Stenosis: 2. Three Specimens of Congenital Malformations of the Heart. Dr. Greenfield—Hypertrophic Cirrhosis of the Liver. Mr. A. Doran—Perforating Ulcer of Small Intestine after Ovariotomy. And other Specimens.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

5. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Epidemiological Society, 8 p.m. Sir Joseph Fayrer, "On the Relation of Filaria Sanguinis Hominis to Endemic Disease in India."

Obstetrical Society, 8 p.m. Specimens will be exhibited by Dr. Hickinbotham, Dr. Galabin, and Dr. John Williams. The President's Address. Paper: Dr. James Braithwaite, "On Digital Dilatation of the Os Uteri in Labour."

6. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Harveian Society, 8½ p.m. Mr. Teevan, "On Incontinence and Retention of Urine in Children." Dr. Norman Kerr, "The Mortality from Intemperate Drinking, and how best to arrive at the truth."

Royal Institution, 3 p.m. Mr. J. H. Gordon, "On Electric Induction."

7. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations). 2 p.m.

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Rev. H. R. Haweis, "On Bells."

VITAL STATISTICS OF LONDON.

Week ending Saturday, Jan. 25, 1879.

BIRTHS.

Births of Boys, 1309; Girls, 1332; Total, 2641.
Average of 10 corresponding years 1869-78, 2449·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	894	918	1812
Average of the ten years 1869-78	830·1	755·5	1585·6
Average corrected to increased population ...	...	...	1697
Deaths of people aged 80 and upwards ...	...	...	107

Nots.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	7	5	3	...	7	...	2	...	2
North	751729	...	2	13	4	11	...	1	...	1
Central	334369	...	1	2	1	7	...	2	2	2
East	639111	...	2	7	...	16	1	3	2	3
South	967692	17	8	21	2	30	1	9	2	5
Total	3254260	24	18	46	7	71	2	17	6	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·909 in.
Mean temperature	29·2°
Highest point of thermometer	34·9°
Lowest point of thermometer	24·4°
Mean dew-point temperature	22·2°
General direction of wind	E.N.E.
Whole amount of rain in the week	0·02 in.

BIRTHS and DEATHS Registered and **METEOROLOGY** during the Week ending Saturday, January 25, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Jan. 25.	Deaths Registered during the week ending Jan. 25.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2641	1812	34·9	24·4	29·2	-1·56	0·02	0·05
Brighton	105808	44·9	66	50	36·7	25·5	31·1	-1·06	0·02	0·05
Portsmouth ...	131821	29·4	71	53	...	...	...	...	...	...
Norwich	85222	11·4	52	38	36·0	28·0	31·0	-0·56	0·00	0·00
Plymouth	74293	53·8	53	29	49·5	26·0	34·0	1·11	0·02	0·5
Bristol	209947	47·2	141	84	35·7	22·2	29·6	-1·33	0·00	0·0
Wolverhampton ...	75101	22·1	58	36	34·5	18·6	26·8	-2·89	0·00	0·00
Birmingham ...	383884	46·3	312	177	...	...	...	...	...	...
Leicester	125622	39·3	74	60	34·0	19·5	28·5	-1·25	0·00	0·00
Nottingham ...	16939e	17·0	106	66	34·3	22·5	29·3	-1·50	0·47	1·19
Liverpool	538833	103·3	415	324	33·8	22·8	28·8	-1·78	0·00	0·0
Manchester ...	361819	84·3	253	233	...	...	...	...	...	...
Salford	177849	34·4	149	108	...	...	...	...	...	...
Oldham	111318	23·9	61	49	...	...	...	...	...	...
Bradford	191046	26·5	118	85	34·2	22·0	28·7	-1·84	0·00	0·00
Leeds	311860	14·5	227	140	36·0	23·0	30·3	-0·95	0·32	0·81
Sheffield	297138	15·1	175	152	36·0	18·0	28·8	-1·78	0·00	0·00
Hull	146347	40·3	111	80	36·0	25·0	31·4	-0·34	0·09	0·23
Sunderland ...	114575	41·4	72	69	37·0	27·0	32·3	0·17	0·23	0·58
Newcastle-on-Tyne	146948	27·4	117	71	...	...	...	...	...	...
Edinburgh	226075	53·9	150	89	36·2	25·0	29·0	-1·67	0·00	0·00
Glasgow	578156	95·8	379	316	36·5	22·2	29·2	-1·56	0·07	0·18
Dublin	314668	31·3	202	259	39·2	22·2	33·8	1·01	0·16	0·41
Total of 23 Townsin United Kingdom	8502896	38·6	6003	4381	49·5	18·0	30·1	-1·06	0·02	0·20

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·91 in. The highest reading was 30·20 in. on Sunday evening, and the lowest 29·74 in. on Tuesday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ON THE RELATION OF FILARIA SANGUINIS HOMINIS TO THE ENDEMIC DISEASES OF INDIA.

READ BEFORE THE EPIDEMIOLOGICAL SOCIETY, FEBRUARY 5.

By SIR JOSEPH FAYRER, K.C.S.I., M.D., F.R.S.

THE subject is so comprehensive that it would be impossible in the limits of an ordinary paper to do it justice; but as the Council of the Epidemiological Society has desired me to bring the matter before you, I proceed to draw attention to some aspects of an important helminthological discovery, and also to certain points in which, in its relation to endemic disease in India and other tropical and sub-tropical regions, further information may be anticipated.

I must say, at once, that I have nothing original of my own to communicate, but deal entirely with the work of others. I am glad to have this opportunity of testifying how deeply medical science is indebted to our brethren at home and abroad for their researches. I know of nothing that more practically illustrates the scientific zeal of our profession than the subject I have to bring before you.

In March, 1870, Dr. T. R. Lewis, of H.M.'s British Medical Service, made known his discovery of certain microscopic nematodes in chylous urine, and suggested their probable causal relation to that disordered state of the lymphatic system. In the Appendix to the Sixth Annual Report of the Sanitary Commissioner with the Government of India in 1869, published in Calcutta in 1870, he states that when examining the urine of a patient, in Calcutta, suffering from chyluria, he discovered, amidst the fibro-albuminous matter in that fluid, the embyros of a new round worm each time he repeated the examination, and noted appearances that indicated the existence of a sheath in which it was enclosed. He, at first, thought that what he saw was detached filaments of a fungus, but movements revealed their real nature.

As to their size, considering that 200 could pass abreast through a pin-hole, an orifice not exceeding one-fiftieth of an inch in diameter, it is not surprising that their existence had not been suspected. Lewis, I suppose, was not then aware that they had been seen, under similar circumstances, by Wucherer, in Bahia, in 1866. This appears to be the earliest notice of their existence in India, and certainly it was an original discovery of the greatest importance in its bearing on hitherto unsuspected causes of certain diseases. In July, 1872, when examining the blood of a native in the Calcutta Medical College Hospital, who was suffering from diarrhœa, Lewis detected nine nematoid worms in a state of great activity on a single slide. They were similar to those observed in chylous urine in March, 1870. Specimens were sent to Dr. Parkes, who, with Mr. Busk, expressed an opinion that they belonged to Filariæ. It had not hitherto been known that they were *hæmatozoa*. The name *Filaria sanguinis hominis* was given to them. Further examination of cases of chyluria proved that both in the blood and urine the filariæ were to be found, and also in morbid secretions. For example, in a case where chyluria was associated with granular eyelids and inflammation of the eyes, giving rise to a milky secretion from the corners of the eyelids, filariæ were detected in the exudation. Lewis gives a rough estimate of the number of filariæ at 140,000, being an allowance of two individuals in each drop of the ten pounds of blood possessed by a person of one hundred pounds weight. This—if the parasites pervade the whole blood, as they probably do,—is, I should think, considerably below the mark!

The creature is very minute, and apt to be overlooked without long, careful, and patient examination. The power employed should be sufficiently high to define a red blood-globule. The diameter of Filaria sanguinis hominis is about $\frac{1}{325}$ inch—some are larger, some smaller: the largest $\frac{1}{300}$ by $\frac{1}{45}$; the smallest $\frac{1}{600}$ by $\frac{1}{125}$. Filaria sanguinis hominis belongs to a family that includes many other entozoa prejudicial to man, and animals—Ascaris, Oxyuris, Dochmius, Speiroptera, Anguilhela (the diarrhœa worm of Cochin China), Dracunculus, Trichinæ. It is allied to the last-mentioned, and their larval forms are somewhat alike, though perfectly distinguishable. During the first few hours "after removal from the body, the filaria is in constant motion, coiling and uncoiling itself, and lashing the blood corpuscles about in all directions." It has the power of retracting the head and tail. When recent it is smooth and translucent; some have a granular appearance. A spot like an oral aperture sometimes appears. As they become inactive they lose their transparency; if a little spirit be added they preserve their outline, otherwise they quickly disappear. They are capable of retracting within the delicate sheath by which they are surrounded. Under careful examination an oral and an anal aperture and an intestinal tube can be made out.

The embryo being enclosed in a sheath, and having no visible boring apparatus, we may assume that its home is in the blood (or lymph), and that its movements are those of the circulation. With regard to the part taken by it in the production of disease, post-mortem evidence is much needed, not only with the view of determining what pathological changes take place, but of ascertaining the seat of the parent worm, and especially should search be made in and near the blood and lymph channels. Lewis describes the post-mortem appearances in the kidney. "It was more than usually lobulated, and on section several of the pyramids, especially near their apices, presented a smooth, tallowy appearance, suggestive of amyloid disease; no approach to the characteristic iodine reaction was obtained. Translucent oil-like tubules of a varicose appearance were observed alongside of the uriniferous tubes, as if the vessels had been plugged; boiling ether had no effect on them. No other morbid changes were found, but, in every part of the kidney examined, filariæ were were found, as also in the branches of the renal artery, which were not, however, enlarged." The capillary vessels, from the absence of good preparation, were not examined. Such is the course of the hæmatozoon into the urine. Worms of various sizes were found in the chylous urine, but no casts.

Chyluria is frequently associated with symptoms of other obscure diseases—diarrhœa (often of a persistent character), deafness, chronic ophthalmia. And here I may notice that in horses, and men too, in Africa and India, a filaria is occasionally found in the eyeball. I have several times seen horses blind from the presence of a living and moving nematode in the anterior chamber, which quickly induces corneal opacity. There are several other morbid conditions that I shall presently refer to.

The chyluria, due probably to the stoppage and rupture of lymphatic vessels, is doubtless very frequently associated with filaria; but we may not, I think, affirm that it is always so caused—other conditions may give rise to it; but in warm countries, or in cases of persons who have long resided in them, it is important to consider their possible origin, not only in chyluria, but in chronic diarrhœa, especially if associated with intermittent chyluria. It has been shown that the parasite may live for years without causing any very palpable derangement of health; and that it does not undergo any development as long as it remains in the circulation. It may continue an abiding source of disease, which, under certain conditions, will develope itself; and what these conditions are we now seek to learn. This is an important subject on which we seem likely to add to our knowledge.

There are others besides Lewis who share the honour of the discovery. The literature of the subject is already extensive. I can only refer to some of those who have contributed to it. Dr. Cobbold, who has himself added so largely to our knowledge, not only on this, but on all else connected with helminthology, gives a list of authors.

In 1843, Klenke found worms in the blood of a person suffering from vertigo, but as he did not describe them exactly, we cannot say if they were nematodes.

In 1866 or 1868, the late Dr. Wucherer, of Bahia, published an account of a worm that he had detected in the urine of a person suffering from hæmato-chyluria—he found it when searching for Bilharzia—and describes the minute nematodes as narrow at one, obtuse at the other extremity. He found them on subsequent examinations of chyluria, and they were always alive and active.

In 1868, Dr. Salisbury in the United States discovered a small entozoon in the bladder of a chylurious person. He described it as a new form, and called it Trichina cystica.

In July, 1870, Dr. Cobbold, F.R.S., found a minute nematode and eggs in the urine of a little girl from Natal suffering from Bilharzia. He says that, though numbers of fluke's eggs were passed daily with much blood, it never occurred to him that the nematode was hæmatozoal. The child's parents had told him that she had passed three small worms by the urethra long before, and he assumed that they were of urinary origin. Had he, as he remarks, examined the blood from a finger, Lewis's important discovery of microscopic hæmatozoa might have been anticipated.

In or about 1872 several "finds" were made in foreign countries. I cannot detail them, but they will be found in Dr. Cobbold's interesting paper in the *Proceedings of the Linnæan Society* (October, 1878, vol. xiv., No. 76); and in a paper in the *Veterinarian*, a translation of a memoir by Da Silva Lima, with appendix by Le Roy de Méricour; also in the August and September numbers of *Archives de Médecine Navale*, by Bourel Ronciere.

Up to 1872 the discoveries had reference only to the urine. In July, 1872, however, Lewis discovered the nematode in the blood, under circumstances already described, in a case of diarrhœa, and in the following October in that of a formerly chylurious person. The worms were identical. This very important discovery of the *blood stage* is, therefore, Lewis's; although the embryo had been discovered some time previously in the urine by Wucherer.

The parent worm was discovered still later by Dr. Bancroft in Australia. Thus we have separate discoveries of the different phases of filaria from widely distant quarters of the globe.

Dr. Manson, in China, ascertained that the mosquito is its intermediary host. To all much credit is due; and whether we call the parasite *F. Wucherii*, *F. Sanguinis hominis* (Lewis), or *F. Bancroftii*, is unimportant. If the blood stage (which is by no means certain) be the most important phase of its genetic cycle, we may, perhaps with advantage, retain the Indian name; if the parent be the cause of most mischief, which may prove to be the case, then perhaps *Bancroftii* will be the most appropriate specific distinction. In any case, to each of these gentlemen is due the honour of a most important discovery.

To revert to the embryo, in 1874 Dr. Sonsino, in Egypt, when examining the blood of a young Egyptian Jew suffering from Bilharzia hæmaturia, detected a minute filarial embryo, which he was good enough to demonstrate to me in Cairo when I was there in 1876. I wrote a notice of it in the *Lancet* as Filaria sanguinis hominis Egyptiaca. It seemed probable that it was a variety; but there is, I believe, no doubt that it is identical with Lewis's species. Sonsino has also discovered a filaria embryo in the blood of the horse, and in the crow. He is adding, and will add, to our knowledge of the entozoa of that part of the world.

In 1875, Dr. O'Neill, in the South Coast of Africa, found embryo nematodes in the exudation from the skin in a disease named by the negroes *Craw-craw*; whilst Dr. Arango detected it at Bahia in a negro suffering from the same disease. He called it Filaria dermithemica. F. Dos-Santos found it, *once only*, in the blood of a person suffering from elephantiasis in Bahia. Dr. Crevaux detected it in chyluria in Guadaloupe.

Certain free microscopic nematodes very closely resembling, if not identical, have been found in the potable waters of Rie-Aqua di Carioca by Dr. Magalhaes. Their genetic relation with Filiara sanguinis hominis is not, I believe, quite established, but the indication is important, as it points to the channel through which the parasite may find entrance to the human body.

Dr. Manson, of Amoy, has discovered—what had been already suggested by Dr. Bancroft in Australia—that the hæmatozoa are passively transferred to the stomach of the mosquito, and he has described the transformation they there undergo. A new and important *rôle* for this already obnoxious insect has thus been revealed, the *full* import of which remains still to be ascertained. It appears that the mosquito has a peculiar facility for ingesting filariæ, as the blood taken from their stomachs contains more parasites than that in the person they have fed on. Manson says that the embryo, after entering the mosquito's stomach, retains for a short time the appearances which characterise it in the human blood. But after a few hours changes begin: a double outline of body, and marked striation, appear and again disappear. This is the first stage in metamorphosis, and occupies about thirty-six hours. It now enters on a sort of chrysalis condition, in which, though quiescent, it changes in form—its four-lipped mouth and an intestinal tract become apparent about the fourth or fifth day. The subsequent details are difficult to trace, but it is now one-fortieth to one-thirtieth of an inch in length; it now completes the mosquito-phase, and is very active, "moving about with great facility and rapidity in the water, into which it has emerged equipped for independent life."

Lewis also found the embryo in mosquitos in Calcutta, and has described them in the *Bengal Asiatic Society's Journal* of March, 1878. He says that most of them came from pariah dogs, and they very closely resembled the human parasite. But he says that the mosquitos captured in a particular servant's house did contain human filariæ, and that he had the opportunity of observing all the stages of their growth; that whilst the stomach digests some, others perforate the walls of the stomach, pass out, and undergo developmental changes in the thoracic and abdominal tissues of the insect. He thinks that it will be found that Manson's observations apply to India, but he does not feel convinced that the mosquito is *the* only intermediary host; it may turn out to be so, but it is to be noted that even the most advanced stage hitherto seen is still a very immature one, no trace of reproductive organs being distinguishable.

Dr. Cobbold thinks we have sufficient information to establish the genetic relationship between Filaria sanguinis hominis, the stomachal filaria of mosquito, and the sexually mature Filaria Bancroftii. This name is given by Dr. Cobbold to the mature worm in honour of its discoverer, who first found it in Australia in 1876. He sent specimens home, and they were verified by Drs. Cobbold and Roberts. Dr. Cobbold having detected, among specimens of microscopic hæmatozoa sent home by Bancroft, a single empty egg-covering, which corresponded with some he had observed in a Natal patient, suggested search for the parent; and Bancroft found it, in a person suffering from lymphatic abscess of the arm, in December, 1876. Lewis made further search, and on August 7, 1877, found two specimens in the blood-clot from a young Bengalli lad who had been operated on for nævoid elephantiasis. Carter, in India, in 1876, had also found it in a lymphatic abscess of the arm, and in hydrocele of spermatic cord. Drs. Arango and F. Dos-Santos and others also verified the discovery. Bancroft sent specimens to Dr. Cobbold, who gave an account of their anatomy in the *Lancet* of October, 1877, with figures. He only found the female, and gives the following dimensions:—Mature—length, 3½ in.; breadth, 1". Embryo—length, $\frac{1}{300}$th to $\frac{1}{125}$; breadth, $\frac{1}{3000}$ to $\frac{1}{2000}$. "Body capillary, smooth, uniform in thickness; head with a simple circular mouth, destitute of papillæ; neck narrow, about one-third of the width of the body. Tail of female simple, bluntly pointed. Reproductive outlet close to the head; anus immediately above the tip of the tail. A number of ova and embryos escaped from a mature worm during examination."

Lewis also gave a description and figures in the *Lancet* of September 19, 1878, which very closely corresponds with that by Dr. Cobbold, and says, "It is possible that when the parasite discovered by Dr. Bancroft has been more definitely described, and its anatomy investigated, it may become evident that it is identical with the Filaria sanguinis hominis." Of this I imagine there is now little, if any, doubt. I should add that Lewis noticed that the embryos which escaped from the mature worm detected in the blood-clot of nævoid elephantiasis were identical with embryos found in the blood of other parts of the body.

As regards the mode of entry into the human body, Manson says, speaking of the embryo *after* it has left the mosquito and escaped into water, "It is through this medium brought into contact with the tissues of man, and thus, either by piercing the integuments, or, what is more probable, being swallowed, it works its way through the alimentary canal to its final resting-place; arrived there, its development is perfected, fecundation is effected, and finally the embryo filariæ we meet with in the blood are discharged in successful swarms, and in countless numbers. In this way the genetic cycle is completed." With regard to a boring apparatus Manson says, "I cannot say if the three or four papillæ round one extremity of the developed embryo constitute the perfected boring apparatus of the worm, or if it is a boring apparatus at all; but comparing this with

what is found in other species, I think it very probable that it either is or will become the piercing apparatus."

I may not dwell longer on these details: they will be found in full in Dr. Manson's excellent paper in the *Linnaan Society's Journal*, No. 75, vol. xiv.

I would just remark that whilst this is probably the right interpretation of what takes place, it cannot yet be regarded as perfectly established until further observation shall have confirmed the facts.

This much, however, may be regarded as certain:—The embryo filariæ may swarm in the blood, and be associated with, or give rise to, certain morbid conditions. They pass into the mosquito, or it may be into other intermediary hosts, where they undergo developmental changes in the tissues of the insect, and are at length set free in the water along with the larvæ. We cannot actually trace them further, as they pass into man, but we have good grounds for believing that they do so through the medium of water. Nor can we follow them through the further developmental changes that result in sexual maturity; though we know that the fully developed worm finds its home in the tissues of man, and then sheds its embryos into the circulating blood. How much, and in what proportion, the diseased conditions that result from their presence are due to the embryo, or how much to the parent worm, we are still unable to say; but we have good ground for believing that post-mortem examinations will now throw light on the subject, as well as on the precise localisation of the parent worm.

It is not within the scope of this paper to describe the diseases due to nematodes generally; I must restrict my remarks to those peculiar to Filaria sanguinis hominis (Lewis).

Great advances have been made in our knowledge of this subject during the last four or five years, in reference to the relation of this parasite to certain forms of tropical disease. It has been shown that disorders of the lymphatic system are most frequently associated with, if not caused by, Filaria: anvoid and ordinary [elephantiasis Arabum] (*perhaps* also elephantiasis Græcorum), (a) chyluria, hæmaturia, hydrocele and affections of the cord and testis, lymph-varix and abscess, diarrhœa, fever, cachexia, deterioration of general health, certain skin diseases (Craw-craw), deafness, eye disease—all these have been ascribed to it, though it is not asserted that they are *always* so caused. Being symptoms of impaired or impeded function, they may be produced otherwise; but it is tolerably certain that we have now got one explanation of their origin in a hitherto unsuspected agency. The mechanical action, were there no other effect, might explain much that occurs by the plugging and obstruction of the nutritive channels. To say nothing of the direct effects on the blood itself, one can hardly conceive that these organisms should exist in the blood in any numbers without affecting it prejudicially; and yet we know that they have been found in the blood of persons who were apparently healthy. Of course, it is difficult to define any absolute standard of perfect health; and there may be a considerable amount of cachexia, even in persons generally regarded as healthy—though, perhaps, could we know their real condition, we might think otherwise. What the peculiar change in locality or action on the part of the hæmatozoon may be that determines the diseased condition, we are still ignorant; and this is just one of the points that needs elucidation.

We naturally ask if there be any analogy in the conduct of other entozoa in this respect; and in comparative helminthology also we look for guidance. Dracunculus may cause little or no annoyance in the earlier stages; but developing, changing place, and discharging its embryos, the gravest results accrue. So Trichina, which in its earlier stages is comparatively unfelt, may become the cause of fatal disease.

When the blood swarms with minute organisms, one might expect to find some evidence of their presence, either from mechanical interference with the blood or lymph circulation, or from *direct action on the blood itself*, or on the nerve-centres. Of the first we have an example in lymph-scrotum, elephantiasis, and chyluria. Of the second, I believe it is probable that several morbid states hitherto ascribed to other causes are due; and, judging from analogy, we may believe this is so. We know how severely animals suffer from the presence in the blood of other minute organisms. Anthrax, for example, is produced by Bacillus; a cholera-like disease in pigs is produced by the migration of Stephanurus, as pointed out by Dr. Cobbold; phthisis in sheep by Strongylus filaria; and in man, as shown by Griesinger, the so-called and widely spread Egyptian chlorosis owes its origin to Dochmius duodenalis (Leukhart), and that not only anæmia, but liver disease and a form of dysentery, are produced by the same parasite, which is not very unlike Filaria sanguinis hominis. "Similar facts," says De Chaumont, "have been observed in Brazil, Arabia, Madagascar: it seems impossible but that in India the formidable affections caused by the Dochmius should be common."

Manson and Lewis have shown that certain filariæ (*F. sanguinolenta* and *F. immitis*) infest dogs in China and India; they very closely resemble the human parasite, and give rise to certain diseases. Sonsino has demonstrated filariæ in the horse and crow in Egypt. In July, 1872, Lewis found in the exudation pressed out from the mesenteric glands of a pariah dog, in Bengal, a small embryo nematode that very closely resembled the Filaria sanguinis hominis, and corresponding to Filaria sanguinolenta of Rudolphi. They were found also in connexion with the walls of the stomach and œsophagus, as had been stated by Czernay and others; in the walls of the bloodvessels, especially of the thoracic aorta; in the interior of fibrous tumours of from the size of a pea to that of a filbert, or even of a walnut. On the walls and in the substance of the coats of the vessel there might be seen a pitted or sacculated or atheromatous condition of the inner coat. There was also an enlargement and softening of glandular structures near the base of the heart.

The tumours of the aorta afforded opportunity of studying the growth of the parasite from an early period up to maturity, as specimens of almost every stage of development may be found lodged in the walls of a single aorta. The parasite is found coiled up in the tumour. They are immature, $\frac{1}{10}$th of an inch in length, $\frac{1}{150}$th in breadth; some smaller. When at this stage they moult; further changes take place, and by the time the worm has become three-quarters of an inch long, reproductive organs can be made out. It now gradually acquires a pinkish colour, and instead of occupying a small tumour alone, it joins other worms in a larger tumour, each occupying a different tunnel. Sometimes they make their way outside. When mature the worm is from three-quarters of an inch to one inch long, and one-fortieth of an inch broad. The female is two to three inches in length. They were also found in the thoracic glands and stomach. The *ova* are oval, $\frac{1}{150}$ of an inch in size. When crushed, an *inactive* embryo escaped. Lewis has doubts as to the habitat of these embryos, whether the moist earth, the water, or the intestinal tube of some other creature; but we have thus the opportunity of watching the development of the *sexually mature* worm. Manson made similar investigations on Chinese dogs, and found Filaria sanguinolenta associated with Filaria immitis. The free embryos in the blood of such dogs are probably the progeny of either or both—Filaria immitis and Filaria sanguinolenta. It is said that Filaria sanguinolenta is oviparous, whilst Filaria immitis is viviparous. Filaria immitis is larger than Filaria sanguinolenta. It is found in the mature form *in the heart* of the dog, and its broods of embryos swarm in their blood. Time does not permit of my dwelling on these canine filariæ. I have only done so, so far, in regard to their analogy with the human parasite, which probably, in its mature form, leads a similar existence, shedding its broods of embryos into the bloodvessels or lymphatics.

Dr. Manson describes the following diseased conditions in dogs caused by filariæ:—Filaria sanguinolenta gives rise to three serious morbid states—(1) stricture of œsophagus; (2) pleurisy; (3) paralysis of hind legs—caused by the presence of the worm in the tissues about the œsophagus, forming tumours—tumours bursting into the pleura—plugging of the capillaries of spinal cord by ova, etc.; and other affections that may be produced by them in the intestines, kidneys, or other viscera. The Filaria immitis, on the other hand, affects the heart and lungs. By arrest in the lungs they give rise to tuberculoid tissue, at all events an infiltration resembling miliary tuberculosis; but more frequently they manifest themselves in the heart's action by interfering with the integrity of the valves, or the capacity of the pulmonary artery

(a) I find in the *Lancet* of February 1, 1879, that Dr. Bancroft has recently written to Dr. Cobbold that he had found filariæ in the blood taken from anæsthetic patches on the thigh of a European aged forty-nine, in Brisbane, suffering from leprosy. Dr. Bancroft also says that he has examined the blood of two patients who formerly had filariæ associated with abscess of the arm; their blood is now free from hæmatozoa.

or its branches. Death not unfrequently results suddenly; or there is a gradual failing of circulation and respiration, ending in death. Such animals are short-winded, and liable to attacks of syncope. And one can readily imagine many other complications arising in one so affected; and it is said that two-thirds of them are so in China, where they frequently are the subject of *both* filariæ.

Their mere *presence*, even in great numbers, does not necessarily produce symptoms of disease; and this is very remarkable when we consider the demand these creatures may make and the changes they may effect in the nutritive fluids. It is interesting to notice the action of other allied forms in man—*e.g.*, Trichinæ and Dracunculus behave nearly in the fashion of Filaria sanguinolenta in the dog: they migrate, pierce the tissues, develope, burst, and give exit to embryos, which set up irritation, perhaps induce pain and other secondary affections, to say nothing of those caused by their immediate presence; and yet there is a period in their existence, too, during which there is little, if anything, to indicate their presence. Recently we have learned from the French physicians Drs. Normond and Bavay of new minute nematodes from Cochin China—the Anguilhela stercoralis, and A. intestinalis. The former, found in the stomach, the whole length of the intestine, pancreatic and gall ducts, is 1 millimetre in length, and 0·04 broad; the latter, in the hepatic duct, walls of gall-bladder, but less frequently than the former, is three times its length, and sixty-five times its breadth. These are described as giving rise to dysenteric diarrhœa, which is very intractable and apt to end in marasmus. You will find a description of this parasite in the *Archives de Médecine Navale* for September, 1878.

But we have still much to learn about these human nematodes, especially in regard to their mode of entry into the body, their locality, habitat, and the way in which they become sexually mature, where and when fecundated, and when precisely the embryos are let loose among the tissues, and how they find their way into the blood- and lymph-vessels, and the precise relation that these vessels bear to each other as carriers of the ova in the embryos. The subject is in the hands of competent observers, and we may look with confidence for a solution of most of what now seems obscure, especially from India, where post-mortem examinations apparently are more easily obtained than in China.

I have given a brief outline of the principal facts relating to the human-blood filaria; and have alluded to some connected with its congeners that affect the lower animals, so far, at least, as they throw light on what is obscure in the human parasite. It remains to be shown what we already know, and in what direction we are to look for further information. I have said that Filaria is frequently associated with, if not the actual cause of, chyluria and other disturbances of the lymphatic system; it is on this part of the economy, indeed, that its influence is specially exerted. Some years ago, in writing about Nævoid Elephantiasis, I said that I thought it probable that other forms of disease would prove to be due to Filaria, and recent observations confirm the prediction. I repeated the observation in 1876, when writing on Sonsino's discovery of the Filaria in Egypt; and, almost daily, proof is forthcoming that in it is to be found the explanation of much that has hitherto been etiologically uncertain. I believe that we are still only on the threshold of our discoveries in regard to this form of helminthiasis. When we consider how much has already been traced to this parasite, it is impossible not to infer that more will be revealed.

Dr. Bancroft suggests that the following conditions are probably associated with Filaria:—Chyluria, hæmaturia, anæmia, tuberculosis, hydrocele with milky fluid, varicocele, elastic tumours in axilla and groin (Helminthiasis elastica), lymph-vesicles bursting in scrotum and abdomen, skin disease (Craw-craw), acute orchitis, lymphangitis with fever, erysipelatous lymphangitis leading to hypertrophy of skin (elephantoid fever, in short), elephantiasis of scrotum and leg, contraction of lymphatic trunks with neuralgic pains, abscess of scrotum, of glands of neck (like struma), of the lymphatics of the arm and thigh, intra-pelvic abscess, peculiar steatoma of face, venous varix, cerebral abscess, and other lesions of brain—a long list, suggestive of mechanical interference with the free passage of the nutritive fluids.

Manson's experience in China, and that of Lewis, McLeod, McCormick, Ewart, Carter, Palmer, and others, in India, shows that elephantiasis, nævoid and simple, is associated with filaria, and probably to these may be added other affections of the lymph system. My impression is that other morbid conditions—tropical cachexiæ, nervous disorders, paraplegia, and others; inflammation of serous and gastro-intestinal mucous membranes; diarrhœa, and certain forms of dysentery—may be due to it, directly or indirectly. Beriberi, anasarca, dropsy, albuminuria, hæmaturia, may, like chyluria, receive a new explanation. The vague chronic ailments that sometimes adhere to old residents in tropical or sub-tropical climates may, in some instances, depend on the past or actual presence of these hæmatozoa. There are certain forms of hydrocele, epididymitis, and inflammatory conditions of the spermatic cord and its appendages, peculiar to tropical climates, that long puzzled me as to their etiology, which now begin to appear more easily accounted for—the tendency of the blood to form fibrinous coagula while within the walls of the living vessels and heart; the embolism, thrombosis, cardiac and pulmonary arterial pluggings; the arterial, venous, and capillary obstructions resulting in death; apnœa, gangrene, softenings, ulceration. That peculiar tendency in the blood of persons in malarious climates, notably Bengal, to form these fibrinous clots in the heart and pulmonary artery, so often fatal,—may it too, in some measure, be referred to the same cause, not always surely, but probably in some cases? I merely suggest it as worthy of consideration. The dogs in China die suddenly from the occurrence of interference with the heart's action due to filaria—whether to the direct mechanical interference, or to altered conditions of the blood, I cannot say; but what occurs in the dog may, from a similar cause, occur in man. At all events, I know from experience that men do so die and suffer in Bengal. Whether they are filarious or not remains to be shown. Had I known of its existence when I had such cases I should certainly have looked for it; and may it not be possible that such conditions as result from obstructed capillaries—boils, anthrax, local death of tissue, abscesses, ulcers (whether of skin or other tissue, the viscera themselves)—are so caused? The blood-vessels, too, may suffer from aneurism, varix, or some other condition of disease. In the dog they are so affected. So with stricture of the œsophagus, may we not, I repeat, in the present imperfect state of our knowledge, look for similar diseased conditions in man? Analogy warrants it, I think. Manson says that in the blood of 670 persons examined, of whom 195 were in apparently good health, he discovered filariæ fifty-three times associated with some morbid state, and nine times coexistent with the appearance of perfect health. Here is the list of what he found:—

	No. of cases.
Elephantiasis of scrotum	3
„ of leg	1
Lymph-scrotum and chyluria	2
„ „ elephantiasis	1
„ „ inguinal varix	1
Lymphatic inguinal varix	7
„ „ „ (coexistent with ulcer of cornea)	2
Hæmatemesis	1
Cataract	1
Ulcer of leg	4
Hydrocele	3
„ and rheumatism	1
„ and cataract	1
Rheumatism	1
Tumefaction of spleen	1
Fever and anasarca	1
Leprosy	2
Debility	1
Intermittent fever	2
Intermittent fever with enlarged spleen	1
„ „ with inflamed scrotum	1
Hydrocele and fever	1
Chronic eczema	1
Internal hæmorrhoids	1
Stricture of œsophagus	1
Heart disease and ulcer	1
Total	53
Free from apparent disease	9
	62

It would seem that many forms of disease may be associated with, if not caused by, the parasite in one or other of its genetic phases. It is necessary to be careful lest, in the enthusiasm of a new discovery, too universal application be made of it, and more ascribed to it than is its due.

Important questions arise out of the preceding considerations. 1. Whence does Filaria come? 2. What can we do to prevent or remove it?

The second question will be best answered when we are able to reply satisfactorily to the first. When we know the origin and are assured of all the genetic phases, the whole life-history, we shall be in a better position to deal with it. Prevention is the first desideratum, but when infection has occurred we need some effective parasiticide; and it is not improbable that such exists. Perhaps carbolic or sulphurous acid, arsenic, or it may be some of the remedies that have proved useful as antiperiodics or febrifuges, may have owed some of their virtues to their anti-hæmatozoal properties. Secondary consequences, such as described in Manson's list, may be treated on ordinary medical and surgical principles, which at present I cannot stop to describe.

The area of distribution of these diseases is said to correspond with the geographical distribution of Culex. Where the mosquito is rare the diseases of Filaria are infrequent, and conversely. Manson advocates this view, and is impressed with the importance of the part played by the mosquito as intermediary host and propagator of the parasite. He certainly has grounds both in fact and analogy for his belief. Dracunculus employs the microscopic crustacean Cyclops as an intermediary host. Its second stage is thus, like that of Filaria, passed in another creature. They both find their way, through the medium of water, back to man. He adduces an authenticated instance of importation of the disease of elephantiasis by a single individual into Barbadoes. The mosquitos sucked his blood, and with it embryo filariæ; they were thus disseminated, and the disease has been ever since endemic in the island, where it was before unknown. I cannot affirm that the dissemination actually took place through the mosquito, but the rest of the story is authentic —the appearance in the island of elephantiasis with the advent of a particular individual. Dr. Manson thought the mosquito did it: if that be not the real explanation, I know no other. In any case, whatever part the mosquito may play, the water must be regarded with grave suspicion, and the greatest care observed in securing its purity; whilst, in view of what we know of the mosquito, it is desirable that he should be kept from access to all water supplies for either drinking or bathing, and that the water should be boiled before using. Sanitary science has already reduced the death-rate of our soldiers in India from 60 to 16 per 1000. May it here achieve further triumphs! It will do well, at all events, not only to insist on pure water, as it always does, but to keep its eye on mosquitos, and other possible intermediary pests. The usual way of getting rid of an entozoal pest is to interfere with its genetic cycle.

In concluding my remarks, I would say that I feel it is presumptuous to suggest any line of investigation; the discoveries of the Filaria and its relation to disease are so complete as far as they have gone, that it seems hardly right to trespass on ground so originally and advantageously occupied. I know that I have most imperfectly represented the work already done, and the only justification I have for dealing with the subject at all is obedience to your behests, and that, having had considerable experience of the diseases ascribed to Filaria, I am so far qualified to express my sense of the value of the light that has been thrown on a very obscure subject. I therefore esteem it no less a privilege than a duty to declare how much pathology is indebted to the knowledge gained. I am aware that the subject is still in its infancy, and that further research may modify much we now seem to know; but we are on a new and original track, and if I mistake not, one that will lead to important results—, new explanations of the cause of disease, new methods of prevention and treatment, it may be—that will be as beneficial to mankind as they are honourable to those who pointed out the way to obtain them.

In congratulating ourselves that our own countrymen have taken so distinguished a part in these researches, and whilst giving all honour to our French, American, and Brasilian *confrères*, we cannot but feel satisfaction in remembering how much our distinguished countryman at home has done for the elucidation of this and all other forms of helminthiasis. His researches are, happily, well known throughout the scientific world. I wish I could add that they are as universally appreciated as they deserve. It has been the lot of other investigators that recognition of their labours has been long postponed, as it has been in Dr. Cobbold's case, but the time will certainly come, perhaps is now at hand, when they will be appreciated at their real value. Meanwhile he may feel the satisfaction of knowing that he has done great service to medicine; and I am glad of this opportunity of expressing not only my own personal obligation to him for valuable information often most kindly and freely given, but my admiration—which I know is shared by others —for the valuable information on this subject that he and others, notably Lewis, Wucherer, Bancroft, and Manson, have placed within our reach.

ORIGINAL LECTURES.

LECTURES ON THE DIAGNOSIS OF EPILEPSY.

DELIVERED BEFORE THE HARVEIAN SOCIETY.

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LECTURE III.

So far we have spoken of negative mental states in slight epileptic seizures. We said the patient had in, and also after, his attacks defect of consciousness, or loss of consciousness. But occasionally there is also an exactly opposite mental state, a positive one. There is a double mental state—a negative and a positive element together. A patient seized with a slight fit suddenly becomes vague as to his present surroundings, and at the very same time, or in instant sequence, he has a "dreamy" feeling, often of some apparently former surroundings. This double mental state helps the diagnosis of slight seizures greatly.

Let me give an example. One of my patients stated, as the onset of his fits, two diametrically opposite conditions of mind. He said (1): "The ordinary operations of the mind seemed to stop;" (2) "I seem to think of a thousand different things all in a moment." He put it again thus, still making a double statement: (1) "If writing a letter, it becomes a blank; and (2) the thoughts before-mentioned come." Here there were very clearly (1) a negative state, defect of consciousness as to his then surroundings; and (2) a positive state of increased consciousness, a "rising up" of formerly organised mental states. The patient next lost consciousness; then the negative state became deeper, and his dreamy state vanished.

But sometimes there is no "dreamy state," but there are actions; there is an "epileptic somnambulism" as well as an "epileptic dream." An epileptic, after a slight fit, took his boots off in church; one of my patients began to undress at a wharf—his fellow-servants stopped him when he had got one leg of his trousers off. Such cases are very common.

We have, then, two divisions of positive conditions in or after slight fits of epilepsy proper.

(1) "Dreamy" states without actions.

(2) Actions more or less elaborate.

There is a distinction betwixt the two classes(a)—one akin to the distinction, made by many authorities, betwixt ordinary dreaming and ordinary somnambulism. The rule is that the patient, in the cases under the first division, remembers his positive mental state—remembers his dream—or, of course, we should know nothing about it, there being nothing for us from which to infer it, as he does not act. But when a patient does anything in or after his fits, he remembers no mental state during his actions, nor does he remember what he has done. As will be seen by the examples, the memory

(a) In no case do I believe it possible that elaborate states ("dreamy" states, "actions," or "movements") can occur from an *epileptic* discharge. I believe all elaborate positive states occur from, or arise during, an increased energising of centres permitted by removal of control of higher centres (Anstie, Dickson Thompson). In the case mentioned in the text, we note that there was a double mental state; the patient had defect of object-consciousness (negative) and (positively) increase of subject-consciousness; in another way of stating it, he had loss of function of the now-organising nervous arrangements and increased function of the earlier organised.

of the so-called "dream" is often very slight, sometimes only that there has been some vague mental state; it is thus rather a belief that he had dreamt than a remembrance of a dream.

There are cases which in one of their stages come under the first, and in another stage under the second, division. The patient has a "dreamy state"; then becomes unconscious and acts. He remembers his dream, but knows nothing of his actions.

I confess that I believe there is some sort of mental state attending the actions in the patient who is said to be unconscious, and who, on recovery, knows nothing of them; I believe that he has lost *highest* consciousness, and that his automatism has an accompaniment of some degree of consciousness or subconsciousness. I adopt that part of Lewis's teaching, which is, that some kind or degree of "sensibility" attends energising of every nervous centre.

But, not to raise a difficult question, we will simply say that, in the cases under the first division, there are dreamy states and no actions; and that, in the second, there are actions and either no dreams or no remembered dreams attending *them*.

(1.) *Dreamy States without Actions.*—There is in cases of this division some defect of consciousness, and, at the very same time, some mental activity of a sort—what is commonly called an Intellectual Aura, but which is here called "a dream."(b) Besides other objections to the term "intellectual aura," it does not bring into prominence the fact that the condition it should name is duplex.

Now let me mention more cases. It is not uncommon to find that a patient gives as the warning of his fits such an account as this. "It begins," said one of my patients, "by a sort of referring to old things, things that have happened," which he could not further describe; he added, too, that he lost himself. That is to say, he used two expressions which seem, but are not, contradictory; he had defect of highest, that is, latest, consciousness; to some extent he lost himself to his then surroundings, and yet at the same time had the mental state which was a revival of some organised processes, if not exactly, as he averred, of some particular former events. Next he lost consciousness altogether, was convulsed, and bit his tongue.

I am not leaving the subject of slight seizures and straying into the consideration of severe ones in mentioning the above case, in which convulsion with tongue-biting occurred. The interest of this illustration lies in the fact that, for several months, the patient had occasionally a slight fit, exactly like what was ultimately the so-called warning (really first stage) of his severe ones; he said that, during some months, he occasionally had "*this* reference to old things," and "lost himself" for a moment, before anything he thought to be serious occurred.

A patient subject to very slight attacks said that he occasionally passed into a "dreamy state," and would fancy he saw the same things under the same combination of circumstances as he had once before seen them. To illustrate this, he said, pointing to it: "If I were to see that fender, I should say: 'Dear me! I saw that fender before.'" The sensation is to him pleasing; if "he thinks of something else," he can shake it off. All this patient's fits were slight; the greatest abnormality towards severity was that in one he slipped off his chair suddenly unconscious, but many of his fits were slighter; he would turn pale and "livid" in some. It was certain that they were epileptic; he had been subject to them eight years. In the first he passed urine, and so he did in one six years later. In his earliest attacks *he had a metallic taste in his mouth.*

Such reminiscences as this patient had occur in healthy people, or in trivial and transitory disorders of health. I speak of cases in which the mental state occurs frequently, and with some decided affection of consciousness, in such slight paroxysmal conditions as we know do merge into severe undoubted epileptic seizures. The fact that they are like normal or nearly normal states is a matter of great interest.

It may be said that such mental states are mere curiosities. Not so, if they are, as they are, the precursors of epileptic convulsion, with tongue-biting. I dwell on these cases because they are somewhat unusual, and because I think they have not attracted due attention in this country.(c)

In the following, there was an account given of a mental state, which reminds one of the hyperbolical accounts given by persons rescued from drowning, of their mental states during submersion.

A female patient, thirty-four years of age, gave as her warning of her epileptic seizure: "It seems as if I went back to all that occurred in my childhood, as if I see everything, but so quick and soon gone that I cannot describe it." She next, as a rule, became unconscious, but occasionally she has this feeling of "reminiscence" only. Unfortunately, except that she always passed urine in her fits, no account of the severe paroxysm was obtainable, except the so-called intellectual aura of it. The account of this warning was given in reply to the simple question, "How does the fit begin?"

This patient was only a domestic servant, and thus it may be said that her account, besides being vague, was untrustworthy. Yet she gave it spontaneously; one does not ask leading questions in such things. Of course, I do not mean that the poor woman remembered all the events of her life, but simply that she had some sort of voluminous mental state. That her attacks were epileptic is practically certain, as at other times she lost consciousness altogether and passed her urine in the paroxysm.

A boy, fourteen years of age, stated his dreamy state in boyish language. About every day he had two or three fits in succession. He said, "I come over queer." "I feel as if I was lost—as if I were in some strange country." That his slight seizures were epileptic is proven by his having had also undoubted epileptic seizure.

Let me now mention other expressions of other patients as to the dreamy state. Most vaguely it is described as a "dreamy state"; often it is said to be a feeling or thought which is indescribable. One patient used the expression, "Old scenes revert for hours before the fit." Another said, "If I were walking along and had a fit, I should think, Oh! I saw that before." This patient had also an epigastric sensation, which he described as "a sudden fear," "a pang," "as if passing through an ordeal." A patient, whose case will be alluded to later on, said, "A feeling of being somewhere else." His fits began by a sensation of smell. A highly educated man described his mental state as one of double consciousness. In detail he said it was "the past as if present, a blending of past ideas with present." Again, "a peculiar train of ideas as of reminiscence of a former life, or rather, perhaps, of a former psychologic state." He then lost consciousness; returning consciousness was like awakening from a dream or trance; the vision vanishing in spite of every effort to retain recollection of it. He said, "Sometimes I think I have it, and then it is gone." It may seem that this patient was reading philosophy into his symptoms, but a poor boy described the feeling "in his head" at the beginning of the seizure, as if he had "two minds"—an exactly equivalent expression. I believe that the expression, "double consciousness," is literally correct.(a) Another patient said, a feeling "as if dreams were mixed up with present thoughts." Another said, he had "a trace of last night's dream," and also "a thought accompanies it"; "can't usually remember it,—in the last it was about gipsies." The attacks were also attended by an unreal smell—so-called subjective sensation of smell. Another patient saw "various visions when not quite unconscious." It was once "a wood and some people"; another time, "pillars of an old Gothic church, and people standing in it." This patient also had a sensation of smell.

(b) The expression covers states which are doubtless dissimilar; Voluminous Mental State would be a better name to include them all. Another term I use for some of them is "Reminiscence." I use it "without prejudice," as the lawyers say. I do not adopt the patients' statements in their literal meaning, either when they say that they have again an old dream, or when they say their state is a reversion of "things that have happened," or anything else; I simply tell what they have told me. Of necessity, the positive mental state—as also that of ordinary dreaming and the positive mental state in ordinary insanity.—must be a revival of *formerly-acquired* states of some sort, although in new and grotesque combinations.

(c) Besides, they are of great scientific interest. These cases stand at the top of a series of different degrees of dissolution, of which the lowest degrees are coma; midway come cases of actions more or less elaborate. It is understood that the condition in each degree is duplex, and that the negative and positive elements vary inversely, and that the comparisons and contrasts to be instituted are betwixt the negative elements and betwixt the positive elements of the several degrees.

(a) Of course I am not, in saying this, referring to the duplex negative and positive condition; that is, no-consciousness and sub-consciousness, not double-consciousness. The "double-consciousness" is made up of the remains of object-consciousness and of increased subject-consciousness—a revelation, I say, "experiment of disease," of the normal rhythm in all mentation.

Such mental states in the early stages of epileptic paroxysm have attracted little attention in this country. Dr. Joseph Coats of Glasgow has recorded such a case (*British Medical Journal*, November 18, 1876). They have long been described by the French—Falret and others. Voisin, in his admirable article on Epilepsy, speaks of them.

It has been said that the intellectual aura (or what I call "dreamy state") in slight attacks, or when ushering in severe ones, is usually the same in the same patient. So far as I can judge, it is not often so. Always, apparently, some voluminous mental state, the dreamy state is not always the same. Falret and Trousseau say that the "remembrance" is often what, on a former occasion, caused, or at least accompanied, the fit. Falret says that many become epileptic after some strong emotion or profound terror, and, at each fresh attack, see in their mind or under their eyes the painful circumstances or the frightful scenes which produced the disease in them the first time.

(2.) *Post-Epileptic Actions.*—We re-divide, and still only empirically for clinical purposes, the second division into five groups; in other words, we make five types.

(*a*) The patient acts nearly normally; often the actions are a continuance, although in an imperfect and perhaps grotesque way, of what he was doing, or was about to do, before the fit. For example, a patient seized with a slight fit when about to wash himself, twirls his hands about the basin; or going upstairs to make slight alterations in dress for dinner, he has a slight fit and undresses altogether.

(*b*) The patient walks quietly the wrong road, and finds himself in some strange place; or he runs away from the place where he was seized with the fit as if terrified; or he appears to be acting as if he wanted to go home, when really he is at home.

(*c*) We have the so-called co-ordinated convulsion. The patient, directly after his fit—or in it, as his friends will say—lies on the floor, sprawling about, kicking with his heels, etc.

(*d*) She rolls about, struggling and kicking, shouting, laughing, and often tries to bite. This condition in a woman is often taken for hysteria, and the mistake is easy, as the prior fit may be slight and transient. It is only for this reason that I state the condition separately from (*b*).

(*e*) The patient is up and about, and violently maniacal.

It is not pretended that the above is a good arrangement of cases; it is the best empirical grouping I can at present make. Above all, it must not be taken as a scientific classification. Scientifically, all cases of insanity should, I submit, be classified, as each is an example of Dissolution. This term is used, not in its popular meaning, but as the opposite of Evolution; it is so used by Herbert Spencer. Time will not suffice to do more than give one illustration of post-epileptic actions, from a case which comes more nearly under (*a*) than any other which I have not yet published.

A patient, aged forty-three, had been subject for three or four years to occasional attacks of loss of consciousness. I could get no account of any warning, and the patient denied having any actions after a seizure; yet he really had. In a letter, after this visit, the patient wrote: "I have also had an attack to-day out of doors before dinner. I was walking home from the City, and had got as far as the London Hospital, but ultimately found myself walking the contrary way, under some impression that I was going to the City." Of course, if "under the impression" means that he remembered some "dreamy reason" for going to the City, the case is exceptional; but I imagine, considering what follows, that it was his hypothesis to explain his conduct. Later on, he came with his assistant. He told me that the patient used to turn blue in the attack, but lately pale. There is movement of the hands and one leg is lifted: whether these movements were really spasms or only vague movements, whether parts of the paroxysm or post-paroxysmal, I could not ascertain. The assistant gave clear evidence of actions in or, as I believe, after the attacks. Thus, in the last attack but one, or rather, as I believe, just *after* it, he became violent, caught hold of various parts of his assistant's body and tried to drag him upstairs. The patient did get upstairs, and tried to take his clothes off; looked at his watch, and then looked out of the window. He was well in about fifteen minutes. The last attack I heard of was in a place of worship, whilst sitting in his pew; when his assistant spoke to him, the patient said: "Do you want to see me on business?" (This reminds me of an illustration in *Punch*. A suburban resident, disturbed by the collector at church, woke up and cried "Season," apparently supposing that he was in the train, and that the guard was asking him for his ticket.) The last-mentioned attack in my patient was so slight, that it attracted the attention of no one but his assistant. In or, as I suppose, just after, an epileptic fit, and when yet "unconscious," this patient might read a page correctly and yet know nothing of it afterwards; for example, he once read a parish notice.

Having now illustrated the first division, and also the first set of cases under the second division, I will relate a case showing both "dreamy states" and actions; it is to be observed that "loss of consciousness" comes betwixt. There are in each case three stages.

1. The double state of (1) defect of consciousness along with (2) the positive, the dreamy state.
2. A further stage, one of loss of consciousness.
3. A stage of actions.

In these cases, we find that the patient remembers something of the first stage—his dream—but knows nothing of his actions.

The following case is that of a poor girl, a labourer's daughter, and herself on the parish. She is twenty-nine of age; she has had severe fits for about eight years.

Her severe fits occur at night; she bites her tongue in them, and, possibly because they occur in sleep, she has no warning of them. But, besides these severe fits, she has slight ones, which she calls "sensations." The feeling arises in her mind that she is miles away, but where she knows not. This is the only mental state. After the dreamy state, this patient becomes unconscious, and then actions follow: she runs about the house. Of this running about she knows nothing. She remembers her "dream" without actions, but not the actions. Once she had a slight fit—a "sensation"—in bed, got up and ran about, and knocked her head against the bedpost. The woman who brought her remarked that the door was closed, adding that once, after a sensation, the patient had fallen downstairs in her hurry. The patient passes urine in these "sensations"; so that, were there no severe fits, with tongue-biting, we should declare the "sensations" to be epileptic. If shaken in her runnings about, she stops, and in about twenty minutes comes to herself.

(To be continued.)

TINCTURE OF IODINE AS A SUBSTITUTE FOR QUININE.—Dr. Grinnel, of the Wichita Agency, Indian Territory, has made an extensive trial of tr. *iodini* in malarial diseases, and claims that the results have been fully equal to those obtained from *quinia*. Dose for adults, ten drops in sweetened water three or four times a day.—*New York Med. Record*, November 30.

FATIGUE FROM PEN-HOLDING.—Muscular fatigue from prolonged use of the pen may be pleasantly relieved by holding the pen after the manner of phonographers—namely, between the index and second fingers, keeping it in place by means of the top of the thumb. The distal end of the holder should point away from the body. The strokes are reversed, but one can write in this manner for hours without weariness.—*Boston Med. Journal*, November 23.

OUTRAGEOUS SUIT FOR MALPRACTICE.—Under this title the *Boston Med. Journal* for November 28 gives an account of a charge brought by a woman against Dr. Chase, a practitioner of thirty-two years' standing, who had been called in to her when suffering from exhaustion during labour, and had delivered by the forceps without the slightest injury. He had paid her six subsequent visits without having observed anything unusual about her. Some time afterwards her husband endeavoured to extort money on the plea that she had relaxation of the pelvic ligaments, which was due to Dr. Chase's improper treatment; and on his attempt not succeeding, an action was brought before a judge, without a jury, who nonsuited the plaintiff. A subsequent action for 10,000 dollars, brought before a jury, proved more successful, as 4906 dollars damages were awarded. Among the practitioners called by the plaintiff, only one testified to the existence of this mobility, and no examination was made to ascertain its reality, while the plaintiff, when not under observation, was able to walk, etc., very well. A new trial is to be applied for.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON

THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

(*Continued from page 5.*)

Influence of Locality in the Causation of Indian Diseases.

EVERYWHERE in the Plains of India, and especially in Bengal, those diseases (Intermittents, Remittents, and Dysentery)—which, notwithstanding all arguments to the contrary, I must still believe to be "Paludal"—are more or less common. That which I must still term "the Malarious Poison" extends throughout the length and breadth of India. Jungle Fever prevails in the damp, wild, thickly-wooded *terai* country at the foot of the great mountain ranges. Hence those who go to the Hills through the *terai*, and those who go down from the Hills on sporting expeditions, and those who have tea-plantations on the lower heights, bordered by *terai*, are liable to Jungle Fever; but there is no evidence that the marsh-poison exists above an altitude of 4000 feet. Of late years a very destructive fever has traversed the districts, principally of Burdwan, Hooghly, and Howrah, immediately north of Calcutta. Much difference of opinion has arisen with regard to its true nature; but I and many others believe it to be a Paludal Remittent, aggravated by want of food, medicine, and due care among the village poor.

Close observation will always show that, in every Indian Fever, Hectic, the True Enteric Fever of Jenner, Measles, Small-pox, Erysipelas, Puerperal and Surgical Fever, the malarious taint is present and must be dealt with. Whatever disease one who has resided in the Plains of India may be the subject of—quite irrespective of the time, however long, which he may have subsequently passed in a temperate climate—the necessity of giving him Quinine must not be forgotten. In uniformly pursuing this course no disappointment has ever daunted or discouraged me, my conviction being that I have worked in the right direction. True, quinine has not the power of cutting short an attack of true Enteric Fever, or of curing the Hectic which attends Phthisis or Hepatic Abscess; but no other medicine at our command has so valid a power as it has in moderating the temperature and in supporting vital power in these diseases, as they occur in India. Many women, in that country, get fever soon after delivery (with suppression of the lochia and milk), which quinine immediately removes. In cases of true puerperal fever, quinine is equally indicated, but will not have equal curative power. In England the value of quinine in Erysipelas—here, as in India, the congener and inevitable concurrent of puerperal fever—has long been recognised. In like manner, the fever which follows a surgical operation in India is sometimes periodic, and curable by quinine. It has been noticed in England that urethral fever has occasionally assumed the character of an intermittent—the patient, doubtless, being the subject of malarious taint. If the surgical fever be that of erysipelas or septicæmia, quinine is indicated, but may not be equally powerful. In short, we are all in the habit of treating every disease with special reference to any constitutional taint which may affect the patient. Nearly everyone who has lived in India must carry with him until he dies the taint of the Paludal Poison. Consequently, treating him for any disease in the nosology, we shall treat him inefficiently if we overlook this fact. In *any* difficult case in India, I have always stood prepared to give quinine—never in heroic doses, but in frequent doses of from three to six grains. Thus employed, I have never seen it do the slightest harm in any case, and have never been compelled to discontinue its use until the desired effect had been produced, or to regret that I had invoked its aid. I have no doubt that those who have practised in malarious districts at home have generally made the same observation.

In India, as in many other parts of the world, Dysentery marches side by side with Paludal Fever. True, quinine is not a specific in Dysentery; Ipecacuanha and Opium are. But we fail in our duty to our dysenteric patient if, after having arrested the disease by the use of these drugs, we allow him to leave us without putting him through a course of cinchona treatment. Dysentery and Acute Hepatitis occur in all malarious Indian districts where sudden and great transitions of temperature are frequent. The very deadly sloughing and hæmorrhagic Dysentery which prevails in many districts of India ought rather to be called Scorbutus than Dysentery. In my first chapter I alluded to the fact that the ships'-surgeons who first described the fevers and fluxes which prevailed among the sailors in Indian ports saw these maladies principally as they occurred in Scurvy-tainted constitutions. It has been considered, with great reason, that the so-called "Ship-Dysentery," which prevailed so destructively in our fleets during the last century, was the enteric fever of Jenner, *plus* Scorbutus. Evidences of the scorbutic taint are now often visible in seamen's hospitals in India, especially among American sailors. The prevalence of the taint of land-scurvy in England has always been recognised, and that not merely among the poor and underfed. When I was a boy, at Portsmouth, my father and other naval surgeons were consulted in the case of an elderly gentleman who lived in great affluence, and had a famous apple orchard at the back of his house. He was dying of a disease which the local practitioners had failed to discriminate, but which the naval men at once perceived to be Scurvy, and cured with oranges. In India many well-to-do people get out of the habit of eating fresh fruits and vegetables. During the rainy season, when dysentery and acute hepatitis are most prevalent, these are rare, and servants do not provide them, except under pressure. In Calcutta I once insisted, as a matter of experiment, that my butler should give me a fresh salad every day for a year, and he succeeded in doing so. Mustard-and-cress and water-cress are always available, and lettuces more generally than might be expected. Common and very ignorant prejudice leads many into scorbutus: "Mangoes cause boils,"—only because boils are generally prevalent in the mangoe season; "Fruit gives one cholera,"—any gross excess in diet being an exciting cause of that malady. I always had good fruit on my breakfast-table, on principle. Again, the old Indian's appetite generally inclines him rather to savoury flesh-meats than to fruit and vegetables. In Scinde, where the water is generally brackish, and fruit and vegetables do not naturally abound, the prevailing dysentery has long been treated antiscorbutically. When I officiated as Inspector-General of Gaols, I examined every prisoner in Behar, a by no means infertile country. It had been observed, I believe by Dr. Mouat, that these prisoners were generally scorbutic. I found that nearly every one of those many hundreds presented clear evidences of this taint, especially a dirty lake-coloured line along the dental edges of the gums, like the lead-line. At Dinapore, in this district, hæmorrhagic dysentery used to kill our European soldiers almost like a pestilence, and it is still very prevalent and destructive in the gaols. That sovereign specific in common acute dysentery, Ipecacuanha, does not appear to have the power of touching (although a fair trial should be given to it in every case) that form of sloughing and hæmorrhagic dysentery, in the causation of which I believe scorbutus is generally an element. This disease is a gangrenous colitis, which commonly kills in eight or ten days, the colon lying, sphacelated throughout all its structures, like a dead snake among the normal small intestines. I have always questioned whether this is in reality dysentery; but it usually commences with dysenteric symptoms. Ill-fed as the poor in Bengal generally are, evidences of scorbutus are by no means so common among them as in Scinde, Behar, etc. Lime-juice does not generally cure their dysenteries; Ipecacuan does. Many years ago I determined that I would not let any dysenteric patient die without giving lime-juice a fair trial. I had a few singularly successful cases; but in Calcutta, probably from the comparative absence of scurvy, lime-juice was often powerless. When a man comes in with a dead colon, you cannot hope to cure him with lime-juice. The patients like it; it never does harm; and, as the scorbutic taint may be latent in any case, it is evidently one of the therapeutic agents most clearly indicated.

One of the most prevalent and destructive maladies among the poor in Bengal, especially in the Gaols, is that which was described by Dr. Tytler as Diarrhœa Hectica, its most ordinary concomitant being either chronic diarrhœa or dysentery. I used, however, to tell my students that this malady is no more diarrhœa or dysentery than a dragoon is part of his horse. True, they are generally seen together, but they are

distinctly separable and very dissimilar entities; so that, when we proceeded to remove the alvine flux, the patient always went on to emaciate and die, perhaps less rapidly, but as certainly as if this complication had remained unchecked. I believe that every one of the hundreds whom I have treated for this malady died, generally in from one to two months after admission. Early in my career, a friend would sometimes tell me that he had treated these patients with success. The probability is, that, believing the malady to be an intestinal flux, he stopped that, and wrongly imagined that he had cured the disease. This malady has many features in common with the mesenteric disease of England, save that we could never discover any marked lesion in the mesenteric glands or anywhere in the lacteal system. It appears to be an arrest of nutrition resulting from chronic starvation. I have never seen this condition in a European or East Indian, or in a native gentleman who lived generously; but wealthy orthodox Hindoos of the old school, whose diet is very poor and deficient in nitrogenous ingredients, sometimes die in this manner. In teaching, I put aside the name Diarrhœa Hectica, and called the malady "Morbus Bengalensis."

Throughout his daily work, the powerful influence of this condition of chronic semi-starvation, not merely in the poor Bengali himself, but throughout his entire race and generation, is constantly obtruding itself upon the physician, who says, "This man's constitutional malady is mal-nutrition, anæmia, asthenia, complicated with Fever, Dysentery, or what not." Consequently, the first indication of treatment is a proper and nourishing diet. In many of these patients the entire cutaneous surface is so completely occupied by inveterate itch, that this has to be cured before we can successfully cope with the internal malady for which the patient comes to us.

Cholera, as an endemic, kills its victims daily in Calcutta, and from the commencement of the hot weather, about the middle of February, until the setting in of the rains, in the third week of June, it rages as a pestilence. At rare intervals of years, a very destructive cholera epidemic traverses Bengal Proper. Up country, there is not much endemic cholera, but most stations there are visited by a severe epidemic about once in three years. Cholera is most active in the North-Western Provinces from June to September, the season during which it does least mischief in Bengal Proper.

Paralysis of the lower limbs is extremely prevalent wherever the lentil called Khesari Dhal (*Lathyrus sativus*) forms a staple article of diet, and a solitary case or two may be seen in nearly every bazaar in the Plains.

Elephantiasis (Barbadoes-Leg, and similar affections of the arm and scrotum) is common wherever the double influence of the sea-breeze and the marsh-poison extends, up to a distance of about three hundred miles from the sea, throughout the habitat of the cocoa-nut tree.

Malabar Itch prevails on the sea-border, chiefly on the Malabar coast; but, as I know by sad experience, it extends eastward at least as far as Chittagong.

True Leprosy is seen throughout India. It affects poor and ill-fed natives and the lower class of half-castes, and, rarely, persons of European parentage born and reared in India. I only knew, by hearsay, of one or two, probably questionable, cases in Europeans born out of that country.

Syphilis is only too prevalent, but is generally mild in type, except where mercurial fumigation is recklessly employed.

Beriberi occurs in Aden, in Ceylon, and on the western seaboard. I never knew a case originate in Bengal. It is evidently due, in part, to scorbutic cachexia.

Delhi Boil prevails among all classes in and about Delhi. I saw cases in the bazaar of Old Cairo.

Urinary Calculus is rare among the rice-feeders of Bengal Proper. It is far more prevalent among the eaters of chapatties (unfermented wheaten cakes) in the North-Western Provinces than it is among the eaters of Norfolk dumplings and of sour bread in London. Many of our surgeons have performed lithotomy upwards of 300 times.

Bronchocele is very common in some extensive districts, and occasionally in very isolated localities, as in Tirhoot, and in certain parts of Assam. As I was travelling on an elephant towards Nowgong, in that province, nearly all the young children of one village who crowded out to look at us had goître. I saw no other cases thereabouts. In some spots it is so prevalent as to affect the goats.

Tetanus, in both its traumatic and idiopathic forms, is very common in Bengal, especially during the rainy season.

At the Hill Sanitaria there is great liability, in those newly arrived, to various forms of visceral congestion, and the malarious influence of the *terai* through which the traveller has just passed is liable to show itself. It was long hoped that the Hill Stations were exempt from Cholera; but, sooner or later, that scourge has appeared at most of them. Hill Diarrhœa, in its confirmed form, is the worst scourge of the Hill Stations. Happily, severe cases are not very common; but they are almost as mortal as those of Morbus Bengalensis. Etiologically, however, these two diseases are perfectly distinct; they arise from altogether different causes, and attack different classes of persons. Many European ladies and officers of the highest rank have fallen victims to Hill Diarrhœa. This disease was, at first, confined to Simla, the oldest Hill Sanitarium, but my friend Mr. Alexander Grant, having clearly proved that it depended upon contamination by excreta of the very limited inhabited area, was able to presage, with absolute accuracy, its gradual appearance at other Hill Stations, where, accordingly, it has since shown itself.

(To be continued.)

REMARKS ON A CASE OF CONGENITAL SYPHILIS.

By ROBERT WM. PARKER,
Assistant-Surgeon to the East London Hospital for Children.

Syphilitic Pemphigus affecting the Palms and the Soles—Suppuration of Dental Sacs—Stomatitis—Bullous Inflammation of the Finger-Nail Beds.

J. A., AGED three weeks, was brought to the hospital on July 9, 1878, with the following history:—The mother had never miscarried. Her first child had died when nine months old, of "consumption," having previously suffered severely from "thrush." The patient was the second child; was born at full term; it weighed something less than five pounds. With the exception of its finger-nails, it appeared quite healthy when born; it had wasted very much since. When first seen it snuffled; the anus was surrounded by a narrow ring of mucous patches. There was no epiphyseal disease anywhere. Neither spleen nor liver could be felt. The motions were said to be normal. Heart sounds normal. The skull-cap and sutures normal. Fundus oculi (as far as a somewhat difficult examination showed) normal. Temperature in axilla 101° Fahr. Corresponding with the place for the two upper central incisors, there were two "gumboils," the size of large peas; that on the left side was the more advanced, and appeared as if about to give way. The rest of the gums was very red and inflamed. (Other "gumboils" developed over the position of the molar teeth during the course of the case.) The mucous membrane of the rest of the mouth was raw-looking. On lancing one of these gum-boils (I use the mother's own expression) a milk-tooth dropped out. The hands and feet presented a peculiar aspect; the extremities of the fingers and toes, on the palmar and plantar aspects respectively, presented small bullæ of various sizes, and there were other bullæ scattered about the fingers and toes, and the palms and the soles. In other places there were patches of redness, as though bullæ were about to form. These bullæ appeared quite superficial, and showed no tendency to ulcerate deeply.

The nails of the right index and middle fingers, and of the left middle and ring fingers, were absent, having been raised up and dislodged by bullous inflammation affecting the nail-beds. The toe-nails were quite normal. Other finger-nail beds became affected during the course of the case. There was at first an exudation of a pale yellowish fluid beneath the nail; this was visible through the nail, which itself appeared unaffected, its surface being smooth and shiny. In other cases the nail seemed to undergo a change—in shape rather than in substance,—for it became pinched up and "filberted." The exudation beneath the nails gradually became purulent, and the nail, along with the dried-up exudation, shortly shelled off. There were no pemphigus bullæ on any other parts of the body than those mentioned. There was no glandular enlargement. The treatment consisted at first in mercurial inunctions. The local symptoms yielded rapidly,

but the child nevertheless wasted, and died when seven or eight weeks old. Cod-liver oil was used both externally and internally during the last week or ten days. The child's death took place during my absence from town, and a post-mortem examination was not made.

All authorities agree as to the serious nature of pemphigus when associated with hereditary syphilis. Niemeyer states that the disease generally lasts eight to fourteen days, and always terminates fatally. Meigs and Pepper state that "the early appearance of pemphigus is one of most fatal import." Although my case proved fatal, I cannot attribute death in any way to the pemphigus itself, for it was not extensive, nor was it intractable. It is possible that pemphigus only manifests itself in cases where there are other and important lesions, and thus its presence may be useful in helping us to gauge the gravity of the disease, otherwise not very obvious. I was at first disposed to regard the bullous inflammation beneath the finger-nails as pemphigus, in the same sense as the corresponding skin lesion just described. But this can hardly be so, for the bullæ of ordinary pemphigus are situated between the two layers of the epidermis. The bullæ on the palms were no doubt situated in this position, for they quickly dried up, leaving a healthy skin surface behind them. Even in cases where cicatrices are left behind, it may reasonably be asked whether the ulceration (which must obviously have taken place) is not secondary and superadded to the original anatomical lesion. The bullæ on the nail-beds, however, must necessarily have had a different anatomical position, and moreover they were a primary lesion.

On further consideration, therefore, I am inclined to reject this view. I venture to think that there was a certain parallelism between the condition of the nail-beds and the stomatitis, or, to speak more accurately, the suppuration in the dental sacs. Severe stomatitis, as ordinarily understood, is not very common in congenital syphilis, according to my own experience. But in this case there appeared to be something special about it, for there was not only inflammation of the gums, but suppuration in several of the dental sacs; and when one of them was incised, a well-formed milk tooth dropped out. Mr. Hutchinson, who was good enough to examine the case, pointed out that the stomatitis had come on too late to interfere in any way with the development of the milk teeth; but he argued that it would probably interfere with that of the permanent teeth, now in a very rudimentary stage of their development. I have thought it probable that the loosening of the teeth by inflammation may have been similar in its mode of production to the process by which the finger-nails were dislodged from their nail-beds. The latter was brought about by the inflammation of the papillæ constituting the nail-bed, and in no way, as far as I could judge, depended on changes primarily affecting the nail itself or the epithelial structures contiguous to it. We had, in fact, to do with a disease of the papillæ of the true skin (derived from the middle embryonic layer), rather than with an affection of epidermic structures (derived from the outer layer). May we not deduce that similar changes had taken place in the papilla connected with the tooth; in other words, attribute the "stomatitis" to changes taking place from within outwards, rather than from without inwards? This would help to explain the occurrence of "syphilitic teeth" in cases where there had been no obvious stomatitis during infancy.

Such a view would, I venture to think, be in harmony with the doctrine of the embryological distribution of the disease (foreshadowed as probable by Mr. Hutchinson in his aphorisms and commentaries on congenital syphilis), and it is a view which seems to me to find strong support in the character of the pathological lesions (connective-tissue lesions) found in congenital syphilis at this period of life.

INTRA-UTERINE CRIES OF THE FŒTUS.—In a case quoted by the *Presse Méd. Belge* (January 26) from the *Journal des Sages-Femmes*, at which Prof. Depaul and M. Noel Guéneau de Mussy were present, the intra-uterine cries of the fœtus were distinctly heard during repeated attempts at delivery by the forceps, the head remaining at the superior aperture of the pelvis for a considerable time. Velpeau always denied the reality of these cries, and so had Prof. Depaul until the present case compelled him to state that in future he must admit their possibility.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

TWO CASES OF TYPHOID FEVER.

(Under the care of Dr. GREENHOW.)

Case 1.—*Hæmorrhage from Bowels—Subcutaneous Injection of Ergotine.*

EMMA B., aged eleven years, was admitted on November 9, 1878. She had felt ill for about eight days, and had had diarrhœa for about three. Her previous history presented nothing remarkable; her own family was healthy, but she had been in the habit of visiting daily the house of her grandmother, who was nursing a case of typhoid. When admitted, patient was suffering from pyrexia; the cheeks were flushed; the abdomen was distended, tender on pressure in the iliac region, and showing at its lower part several pinkish spots, which disappeared imperfectly on pressure. She had also a hacking cough, and harsh sounds were heard on inspiration all over chest. The splenic dulness was somewhat increased. The motions were frequent, light-coloured, and loose. A linctus for the cough was ordered, and patient was put on milk diet.

November 11.—Temperature last night at 7 p.m., 104·2°; this morning at 9 a.m. it is 102·2°. Patient is slightly deaf. The bowels are freely, but not immoderately, loose, and the motions are characteristically typhoid.

12th.—During the night patient has been sick and delirious. Temperature last night at 6 p.m., 103°; this morning at 9 a.m. it is 102°. Cough is still rather troublesome, and there is a trace of albumen in urine. Respirations 40 per minute. The bowels are freely open; the last motion passed was tinged with blood.

13th.—Patient complains of pain in abdomen, which is tense and tender. The bowels are very loose; motions abundant, and contain much blood, with several clots.

14th.—Ergotine has been thrice injected subcutaneously, and a mixture containing two minims of tincture of opium and five minims of oil of turpentine has been ordered every four hours. The bowels were not open after this treatment until about 3 p.m. to-day, when the motion was dark-coloured and partly solid. The abdomen is less tense and is not tender. Patient has been sick after taking medicine.

16th.—The temperature at 6 p.m. last night was 101·6°; this morning it is normal. The bowels are rather confined, and there is no blood in the motions. The cough is still troublesome, and there are abundant moist râles over front of chest.

20th.—There has been no further rise of temperature, and there are now no abdominal symptoms of a serious nature. There is still slight bronchitis.

From this date patient steadily improved, and was discharged on December 31.

Case 2.—*Furuncular Eruption and Sloughing during Convalescence.*

Henry C., aged seventeen, was admitted on November 7 1878. He stated that he had always enjoyed good health until his present illness. He had been "out of sorts" for some time—exact time not specified,—and about four days before admission his bowels became very relaxed. He felt exceedingly weak, and, as he grew steadily worse, applied for admission to the hospital.

On date of admission his temperature rose at 9 p.m. to 104·4°; the bowels were once opened with a small, light-brown, flaky motion. The abdomen was distended and tympanitic on percussion, and was marked with several small pinkish spots, which also were present on the lower part of the thorax. Patient was also suffering from an attack of subacute bronchitis.

November 8.—Temperature at 9 a.m. 101·6°. Patient is not very clear in his ideas, but there is no delirium. His expression is heavy. The bowels are open, and the motions are pale yellow and semi-solid in consistency.

10th.—Evening temperature yesterday 103·8°; this morning 8 a.m. 102°. There is marked dicrotism of pulse. His symptoms are the ordinary ones of typhoid.

13th.—Patient has been very delirious during the night, and has passed three motions beneath him. The delirium commenced yesterday.

14th.—Has passed a better night, and the temperature this morning is 100·2°. The bowels are not so freely opened. He is somewhat jaundiced, and there is a scanty crop of sudamina appearing over trunk, which is also covered with a slightly coloured papular rash. The cough is still troublesome.

16th.—Patient's temperature this morning is about normal. He has passed a good night; the bowels are open, but there is no diarrhœa. The jaundice is much about the same.

19th.—He continues to improve, and temperature is now about normal. The yellow tinge of skin and conjunctiva is disappearing.

21st.—Patient has had slight delirium during the night, and there is still some distension of abdominal walls. The motions are pale and semi-solid.

22nd.—At the base of the sacrum there is an indurated and inflamed patch of skin and subcutaneous tissue, and over the buttocks and loins there are numerous boils, varying in size from a quarter of an inch to an inch in diameter. In other respects patient makes good progress. Balsam of Peru ointment has been ordered as a local application.

24th.—The smaller boils have nearly all dried up; the larger ones are discharging freely. The skin over the base of the sacrum is sloughing.

30th.—The discharge is less now from the boils, and the sloughing tissue has nearly all separated.

December 3.—The boils have nearly all dried up, and are being dressed with dry lint. Some others seem to be forming on inner side of buttocks, but they are less tense and hard than the previous ones.

7th.—The boils and sores on the back have now disappeared, and the others are fast healing.

4th.—All the boils have healed, and patient is going on well. The treatment has been stimulating and supporting.

Patient remained in the hospital until the middle of January without any retrogression, and was then discharged convalescent.

Both these cases were admitted into the hospital with typhoid symptoms fairly well developed, and the onset of delirium probably marked in each about the fourteenth day of the disease. The injection of ergotine apparently checked the hæmorrhage occurring in the first case; and the prompt subsequent convalescence bears out the statement of Graves, endorsed by Trousseau, that this accident has rather a favourable significance than otherwise in typhoid. The symptoms in the second case were more virulent, but the progress was equally satisfactory. Brandy and port wine were administered. The diet, as convalescence proceeded, consisted of eggs, rusks, chicken, etc.; and this treatment, combined with local applications, was sufficient to re-establish the healthy condition of the tissues.

KING'S COLLEGE HOSPITAL.

CASE OF DISSEMINATED SCLEROSIS.

(Under the care of Dr. FERRIER.)

ELIZABETH M., a married woman, aged thirty-nine, has been under Dr. Ferrier's observation in the out-patient department for more than eighteen months, with well-marked symptoms of disseminated sclerosis.

When she first came under observations in April, 1877, she stated that she had had pretty good health up to one year ago. She had had seven children, all at full time; no miscarriages. The only noteworthy point with respect to the nervous system was that she had been subject to hysterical fits. About one year ago she lost a child, which distressed her a great deal. Since that time she had begun to suffer from great agitation of arms and hands when she tried to do anything. For this reason for the last six months she had been obliged to give up needlework altogether; and she found herself constantly letting things fall. Had been getting unsteady in her walking; had fallen down several times.

When seen in the out-patient room, she was rather a spare-built woman. There were no evidences of disease of the thoracic or abdominal viscera. The patient, directly she attempted to make any precise voluntary movement, showed coarse tremor of hands and arms, which tremor subsided directly she ceased trying to perform the voluntary movement. There was tremor also in the muscles moving the lower jaw and the tongue. This was more or less constant, but most marked if she attempted to keep the mouth fixed in any desired position.

On April 23 the following brief note was made:—The right arm and hand are more affected than the left, with irregular spasmodic contraction when patient attempts to perform voluntary movements; can grasp less strongly with right than with left hand. Patient's writing shows that each letter is accompanied by a series of transverse scratches; it is done with enormous effort. When talking, the muscles of the lower jaw are in continuous tremor; sometimes she bites her tongue.

May 14.—The tremors are more marked in the right upper limb than in the left; she staggers sometimes when standing as well as when walking; says "her legs feel heavy."

28th.—Gait steadier than it was.

June 4th.—Is steadier than when she came; handwriting decidedly clearer than it was (see Fig. 1). She can hold

FIG. 1.

her left forefinger to her nose quite steadily, but the right forefinger she can scarcely approximate to the nose at all. Says she fell down last week on account of unsteadiness of her legs.

25th.—Thinks she walks better, but the hands are as shaky as before; handwriting is worse.

July 2.—Complains of suffocating feeling when she goes to bed; has more difficulty in feeding herself; handwriting worse (see Fig. 2 and Fig. 3—July 9).

FIG. 2.

FIG. 3.

February 4, 1878.—Has been gradually getting worse both as regards movements of the hands (both right and left), and also as regards walking. Cannot now write at all. Frequently bites her tongue on mastication. In November she was delivered of a healthy child. She was not troubled with morning sickness during the whole of this pregnancy, as she had been in former pregnancies. The quivering of the tongue and lower jaw causes the speech to besomewhat interrupted and hesitating.

December, 1878.—Continues in much the same state. Cannot now attend the hospital, as she cannot walk safely. Has very great difficulty in bringing her food to her mouth, and is helpless as regards anything but the coarsest housework. There is constant danger, when she holds her baby on her lap, of throwing it on the ground by the spasmodic action of her arms. No nystagmus has been observable during the whole period of her illness. No rigidity or paralysis has appeared. Her general health has on the whole been as good as could be reasonably expected, considering her mode of life and circumstances. Arsenic, phosphorus, and all the usual nervine remedies, have been administered, but nothing has been of any real influence on the progress of the disease. Latterly, attention has been directed mainly to keeping up nutrition and counteracting any intercurrent affections.

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SATURDAY, FEBRUARY 8, 1879.

HOSPITAL GOVERNMENT.

There is, perhaps, no one condition upon which more immediately depends the value of the work done by a hospital than the kind of governing body it possesses. The difference between the great hospitals to which medical schools are attached, and the workhouse infirmaries, consists essentially in this: The former are governed by gentlemen, whose aim it is, first, to get for the patients every known means of cure, applied by the most skilful hands that can be got; and, second, to benefit not merely the few who enter their hospital, but the public at large, by sending out well-trained medical men and nurses, and by aiding their staff to extend our knowledge of the causes and cure of disease. The latter are managed by persons well-meaning, no doubt, but of inferior education, lower social position, and narrower views, who cannot see the more remote benefits which accrue to the community from hospitals managed in a liberal spirit, and whose ideal is simply to give the poor, who are driven to come into their hospital, enough food and appropriate medicine in the cheapest way consistent with the avoidance of public scandal. This is really *all* the difference, for work *might* be done in our workhouse infirmaries quite as good, and as valuable to the nation, as that in our general hospitals. But the ignorance of the governing body stands in the way.

We point out this merely to show the evident importance of the subject. The remarks which follow will only refer to those hospitals which are managed by men who have the larger ends in view; who aim to make their work first good, then economical.

The experience of all great institutions of the kind has shown that there must be some resident head, giving a constant supervision. While it is distinctly an advantage that matters of importance connected with a hospital should receive discussion, and be decided by the agreement of a body of men whose united voice will command public confidence, there yet are a great number of small matters daily arising which a committee cannot deal with unless they were to declare their sittings permanent, and which need to be settled by the prompt decision of an authority on the spot. Therefore there is generally a person having this authority, who either lives in the hospital or visits it nearly as often as if he did. In some places he is paid; in others unpaid. In some this authority is the secretary, in others the treasurer; here he is called the medical superintendent, there the house-governor; in some institutions he is a medical man, in others he has no professional knowledge. We wish here to consider—of course, only in a broad and general way—who and what this officer should be.

First, he should be paid; and paid enough to make it worth the while of an educated gentleman in the prime of life, with energy, business capacity, and good health, to take the post. To run the risk of having an incompetent superintendent for the sake of saving a small sum, is false economy. Now and then it may be possible to find some one with both leisure and private fortune, who will give his time and energy to the work, without asking for a salary. But such persons are rare, and therefore the area of choice, if limited to such, must always be narrow. And it is still more rare to find such an one who, with the knowledge, judgment, and industry required to manage well a great institution, will at the same time have the self-abnegation to refrain from undue assertion of his personal views and wishes. It is the truest economy to get the best man, and to pay him adequately; the managers are then in a position to insist that his work shall be done punctually and regularly, and that his personal likes and dislikes shall be subordinated to what they judge to be the welfare of the institution.

The next question is, should he be a medical man? It is to us strange that there should be any dispute about this. Would a banker choose for his manager one who knew nothing about banking? Would a brewer entrust the direction of his brewery to one who did not understand brewing? And yet there are to be found bankers and brewers, who will give their time and money to a hospital with noble generosity, and yet will put at the head of their institution one who knows nothing about the work which it exists to do; and, stranger still, there are medical men who will support them in this. At first glance, it seems an incredible paradox.

But nothing can commend itself to men's minds unless it has some grain of reason in it. Let us see what underlies this. First, hospitals have to get money from the public, and it is thought desirable therefore, for the satisfaction of subscribers, that there should be some one at the head who looks at things from their point of view. There is an idea that medical men may possibly think too much of their own convenience and interests, and that therefore it is well for them to be controlled by some one representing the public. This is fair enough; but it is a thing for the managing committee to do: they represent the subscribers. If they cannot do it, it is certainly beyond the power of one of their subordinates. We fear there is also, among the lower and less-informed classes, an impression (unfortunately fostered by those who ought to know better) that medical men unduly try experiments on patients, and that students practise upon them, and that therefore a hospital should be governed by a man incapable of such barbarities. We may point out that only a medical superintendent could prevent offences like these: they might be committed with impunity under the eyes of a person having no medical knowledge. Then it is thought by medical men that a non-medical superintendent, not being able to criticise their work, is less likely to interfere with it, and more likely to be impartial, than one himself belonging to the profession

This is really to say that he is less efficient, either for good or harm, than a medical men. If he should be injudicious, the medical staff can take refuge behind their technical knowledge, and be secure from a meddlesome person. But, conversely, if the staff should, in any disputed question, themselves be in the wrong, it is very difficult for one without medical knowledge to put things right. He is more likely to be impartial only because, when controversies arise, one who understands the merits of neither side must perforce act with caution.

The whole of these objections to a medical superintendent come to this—that he is so much more efficient, by reason of his knowledge, that, if a bad choice be made, he can do much more harm than one not understanding medicine, whose evil tendencies can be more easily counteracted. We think that the more efficient he is, the better; and the risk of his doing harm should be a motive to lead those who choose him to be careful whom they appoint.

There is another reason why the head of such an institution should be a medical man. He ought to be one who sees that the duty of a great hospital is not well done if it does nothing beyond relieving the wants of the patients immediately under care; that it is further necessary for the welfare of the public that a certain number of good doctors should be sent out every year; and that the presence of students in a hospital is a good thing for the patients; they are better attended to, first, because, as a rule, young men, whose zeal is sharpened by competition, and who hold office for a short time only, do their work better than officers who, having a fixed income and an assured position, have little to gain by diligence or to lose by indolence; and second, because there is no one, however high his place in our ranks, who is not stimulated to more constant effort by the presence of a body of intelligent, inquiring critics, who are always changing, and whose opinion will afterwards be important to him; and, lastly, because as a matter of fact, recognised by all, hospitals to which medical schools are attached do attract the most eminent men. All this, we fear, is little understood by the public: it can only be appreciated in its full force by one who knows it from practical experience. A good hospital superintendent should look on the teaching and the healing functions as alike important. He should work for not only the immediate good of the few, but the ulterior benefit of the many. He should see, both that the students do their duty to the hospital, and that the hospital does its duty to the students. He should work with the staff, in making the teaching thorough and the clinical work real: using his position to bring forward merit and set aside inefficiency: considering the medical school as a part of the hospital, the sound condition of which is as important to the public as that of the hospital itself. And he should be a bond of union between the lay and medical elements of the institution, representing each to the other, and doing his utmost to prevent misunderstanding and consequent injustice and mistaken action.

But we fear that in a very large hospital this is hardly possible. Not even Sir Boyle Roche's bird could be in two places at once, and when huge institutions like some of our London hospitals are concerned, it is not possible for one man to look after everything. Under such circumstances it has always seemed to us best to have a lay as well as a medical head; but whereas the former might hold office for a lengthened period, it seems to us desirable that the term of the medical officer should be limited. There is in many quarters—and experience says, not without foundation—a profound objection to a medical superintendent holding permanent office. It certainly opens up the road to many acts which must be repugnant to men, like most visiting physicians and surgeons, of a superior status to the resident himself. Much must depend on the man, but everything should not,—something ought to depend on the system.

A TYPHOID EPIDEMIC ORIGINATING IN DISEASED MEAT.

A most remarkable epidemic of typhoid fever, which seems clearly traceable to eating the flesh of a calf that had probably died of typhoid fever, is described by Dr. Walder, Assistant-Physician to the Zürich Hospital, in the *Berliner Klin. Wochenschrift*, No. 39, 1878. On May 30, 1878, a choral festival was held at Kloten, Canton Zürich, and was attended by about 700 members of neighbouring choirs. A public breakfast, consisting of stewed veal and sausages, took place at 9 a.m. At 3 p.m. there was a somewhat similar repast, with the addition of soup, potatoes, salad, and wine. Water was drunk by only a very few persons, and always mixed with wine. Of those who took part in these meals, about 500 sooner or later fell ill. The greater number were not attacked for two or three days after the festival, though a few were unwell on the next day. Dr. Walder calculates that 39 to 40 per cent. of all the cases were taken ill on the fifth and sixth days, and 90 per cent. within the first eight days. The general characters of the symptoms were those of typhoid fever of various degrees of intensity, from mild abortive forms to those accompanied by severe delirium, intestinal hæmorrhage, and high fever. The epidemic presented two deviations from the ordinary run of typhoid epidemics—that the fever rose very rapidly at first, so as often to reach its height on the second day; and that diarrhœa was less common than usual, and less obstinate. Temperatures of 40° C. were not uncommon, and those of 40·5° to 40·8° were several times observed. Most of the patients exhibited the typhoid roseolar eruption, and the spleen was enlarged in all those cases which were examined at the acme of the disease. Dr. Walder states that most of the patients whom he specially examined had swelling of the external lymphatic glands, especially the inguinal, and that the swelling disappeared when the fever left them. In the course of the epidemic, the usual complications of typhoid fever occurred. Four cases relapsed, one of which, a youth aged sixteen, eventually died from perforation of the bowel and general peritonitis. When Dr. Walder wrote, twenty-seven cases of secondary infection had taken place, the patients having either been engaged in nursing those primarily affected, or in washing their linen, removing their motions, etc. Some secondary cases induced by sleeping in the same bed with primary were more severe than the latter, but as a rule the secondary cases were milder than the primary. The post-mortem examination of several fatal cases, four of which Dr. Walder reports *in extenso*, confirms the diagnosis of typhoid fever so as to leave not the slightest doubt as to the nature of the disease.

We now come to the probable source of infection of those persons who took part in the festival at Kloten. The greater part of the meat eaten on this occasion was supplied by the village innkeeper, who was also the village butcher, and all of it (veal, pork, and beef) had been pronounced by a professional inspector perfectly healthy, with the exception of forty-three pounds of veal, which were sent from a butcher at Seebach two days before the festival, and had not been examined by the inspector. The calf from which it came belonged to a peasant. It was only a few days old, and was probably only killed because it was certain to die very speedily from illness. It would not suck, it lay on the straw, cried out when touched as if in pain, and at the last kept lowing loudly. The evidence that the flesh of this calf caused the epidemic is very strong. Not only the partakers

in the feast who ate this particular veal stewed with the other healthy meat were attacked, but families which took no part in the feast, and in which the children had had meat and sausages given them by persons who could not get through what was served out to them, suffered. The lungs of the above unfortunate calf were sold to a lady at Seebach, and the brain to the clergyman of the parish. Three persons who dined off the lungs made into stew were taken ill exactly like the members of the choirs, and the clergyman's family was similarly affected. The bones were sold to a dealer at Seebach, and his dog, which ate part of them, was ill for about a week. Moreover, several persons who bought meat either on the day of the festival or on the previous day from the Kloten butcher also suffered, as did a number who had bought sausages from the same establishment, and persons who had taken no part in the festival, but had dined at the inn kept by the butcher, were laid up. Dr. Walder supposes, with good reason, that healthy meat became infected either by direct contact with the diseased veal, or by having been cut by the same knife.

It should be mentioned that there had been no epidemic of typhoid fever either in Kloten or the neighbouring villages for many years; and though, as a fact, there was a single case of typhoid fever at Kloten at the time of the festival, the patient lived a long way both from the place where the feast was held and from the butcher's shop. The water used for cooking and drinking was supplied from a hill on the other side of the village through iron pipes. The first person who suggested the origin of the epidemic in the typhoid fever of calves or oxen was Professor Huguenin of Zürich, but his suggestion was long received with considerable scepticism, as scarcely anything was known about the occurrence of the disease in those animals. The correctness of his hypothesis, however, is strongly corroborated by Dr. Walder's discovery of the infection of two calves belonging to one of his patients suffering at the time from typhoid fever. A post-mortem examination of one of these animals showed intense swelling of the Peyer's patches throughout the whole of the small intestine, but especially in the lower part, with swelling of the retro-peritoneal and mesenteric glands. The spleen was enlarged. The heart, the lungs, and liver, as well as the joints, were all healthy. There were several small hæmorrhages into the left kidney. No similar cases have ever occurred, before or since, among this farmer's cattle, and it seems most probable that the farmer himself was the infecting agent, and that during one of the fits of severe diarrhœa from which he suffered in the first week of his illness he must have passed a motion in the neighbourhood of the stall, as during this time he was continually attending to the cattle himself. Another case, in which a calf was almost certainly infected by a human being, occurred later on. Here a bucket which had been used for washing the viscera of two patients who had died of typhoid fever, and on whom a post-mortem was made, was soon after filled with water for the calves to drink, and it seems probable that some blood which remained on the outside was licked up by the calf, or else was transferred to the stockings of the cow-boy, which the animal was in the habit of licking. After an incubative period of exactly ten days, the calf was taken ill, and it was killed four days later. The pathological changes were exactly the same as in the other case, and microscopically the calves' intestines in both cases were indistinguishable from a human intestine in the same stage of typhoid fever.

A detailed account of the above epidemic will be published in a few months, but meanwhile our readers will, no doubt, be interested to have an outline sketch of what seems to be a newly detected source of infection of the poor human body by "typhoid poison."

HEALTH OF THE NAVY FOR THE YEAR 1877.

By dint of good management the heads of the Naval Medical Department contrive to publish the statistics relating to the health of the Navy just within one year from the period to which they refer; the Statistical Report for the year 1877 was accordingly made public within a few days of the termination of last year. It is satisfactory to learn, on opening the volume, that from a general point of view the sanitary state of the Navy during the year 1877 was very satisfactory: the ratios of cases of disease and injury, of invaliding and mortality, show a considerable reduction when compared with those of 1876. The death-rate for the year, from all causes, was 7·05 per 1000, and from disease alone 4·92 per 1000; and attention is called to the fact that these rates are the lowest that have ever been recorded in any annual Report. A novelty which has been introduced into the Report under notice is a special table in the Appendix, showing the source of the diseases against which the Contagious Diseases Acts are directed, and from this it will be found that a preponderance of the more serious form of disease was due to infection at places unprotected by the Acts. Further, the table given for the first time in the Report for 1876, showing the extent to which these diseases prevailed in her Majesty's ships at five ports protected by the Acts, and five ports at which the Acts are not in force, has been brought down to the year 1877, and the result gives further proof of the benefits resulting from preventive legislation. Trustworthy evidence of this description must do much to convince even the prejudiced of the wisdom which dictated the introduction of these Acts, and will account for the anxiety of the authorities in some provincial towns—notably Exeter—to extend their operation to the civil portion of the community.

Turning to the detailed accounts of the different stations for the year 1877, and commencing with the Home Force, it is shown that there was a marked improvement in its health returns, cases of febrile disease being much less numerous. The average number of men sick daily was 778·26, which is in the ratio of 37·06 per 1000, and is a reduction equal to 7·47 per 1000 when compared with the sick-rate of the preceding year. A noteworthy case of enteric fever is recorded as having occurred in the *Revenge*. The person attacked was supposed to have been infected on shore at Queenstown, where, as the medical officer of the ship (Fleet-Surgeon Gordon Jackson) states, there are only too many sources of infection, as the most ordinary sanitary precautions are grossly neglected. The case was a well-marked one, and remarkable as an instance of complete recovery after great loss of blood; for it is stated by Fleet-Surgeon James Dick, in charge at Haulbowline Hospital, to which establishment the patient had been sent, that on the fourteenth day of the disease sudden hæmorrhage from the bowels set in, when he passed three quarts of blood. Four days afterwards he again passed large quantities of blood, and became almost pulseless and perfectly blanched. Convulsions ensued on the following day, when he became quite deaf, but diarrhœa ceased entirely, and he began slowly to mend. Convalescence was rapid. The total number of persons invalided from the Home Force during the year was 650, which gives an invaliding ratio of 30·95 per 1000, a reduction equal to 2·84 per 1000 when compared with the invaliding rate of the previous year. In the Mediterranean Fleet remittent fever was prevalent to some extent, but, notwithstanding this, there was a reduction in the sick and invaliding rates on that station, and only a trifling increase in the death-rate. Amongst the vessels comprising the fleet were no less than thirteen ironclads, and it is satisfactory to note that the health-rate of these vessels was generally high. A singular

case of scarlet fever occurred in the *Agincourt*, when the ship was lying in Besika Bay. It was a well-marked case, and its peculiarity was that the origin could not be arrived at by any inquiries, as the man had not been exposed to any infection, had never been on shore since leaving England two months previously, and had not had his clothes washed on shore. The total number of deaths in the Mediterranean station was 36, which is in the ratio of 6·08 per 1000, and is an increase, as compared with the death-rate of the previous year, amounting to 0·67 per 1000. All forms of fever were much less prominent on the North American and West Indies station, and there was a marked improvement in the general health of the squadron; the vessels, also, employed on the South-East Coast of America were healthy, and not a single case of fever appeared in their returns. The number of persons invalided from this station in 1877 was 85, giving an invaliding rate of 32·69 per 1000, and showing a reduction in comparison with the preceding year to the extent of 10·64 per 1000. On the Pacific station, although there was an increase in the ratio of comparatively slight cases of disease and injury, there was a considerable reduction in the invaliding and death rates. The number of deaths was 6, which is in the ratio of 3·82 per 1000, and is a decrease equal to 3·23 per 1000 when compared with the mortality in the preceding year. The ratio of mortality on the West Coast of Africa and Cape of Good Hope station was materially reduced, a circumstance mainly due to the milder types of the fevers that resulted from the expedition sent up the river Niger as compared with the expedition of 1876. With reference to the expedition of 1877, a summary is given showing the value of quinine as a prophylactic: of 68 persons who took this medicine as a prophylactic, 36 took fever and 12 were invalided; of 16 who did not take it before departure, 13 took fever, 6 were invalided, and 1 died of hepatitis as a sequela of the fever. On the East India station a great deal of sickness was recorded during the year, and produced largely increased ratios of invaliding and mortality. There were serious outbreaks of fever, both of the continued and remittent type, in some of the ships of the squadron, and the latter form of fever prevailed both upon the East Indian and African divisions of the station. Cholera appeared in a vessel lying at Bombay, where the disease was epidemic at the time, but it ceased on the ship being moved to another anchorage and on the adoption of the usual sanitary measures. Cholera was also epidemic in some of the northern Chinese ports and in Japan during a portion of the year, but in only two ships of the large naval force employed on the China station were there cases of the disease, and these were limited to six, three of which terminated fatally. There was a large increase in the death-rate on this station, but it was satisfactorily explained by the exceptional number of deaths from violence, the greater proportion of which were cases of accidental drowning. The death-rate of the Australian station was much below that of the preceding year, and there was nothing in the medical history of the irregular force to call for particular comment. The Appendix to the present volume contains no papers of more than average interest; there are the usual medical and surgical reports of the divisions of Royal Marines, and the several dockyards and naval hospitals, and the returns relating to the Contagious Diseases Acts referred to in the commencement of this notice.

THE WEEK.

TOPICS OF THE DAY.

THE question of introducing the practice of cremation into this country has at length been brought prominently to the notice of the authorities in the shape of a deputation from the inhabitants of the neighbourhood of Woking, which recently waited upon the Home Secretary. The Hon. Francis Scott, in introducing the subject, said that a memorial against the erection of a cremating apparatus at Woking had already been sent to the Home Office, signed, he believed, by 800 persons, and had time permitted he thought he could have polled the whole county against the proposed building. The contemplated nuisance was regarded as unwarrantable and uncalled for, and the whole scheme was a monstrous interference with the simple rites of interment, as was shown by the statement of the projector himself, who said he desired to do nothing which would depreciate the value of property in the neighbourhood. After putting several questions to the deputation, Mr. Cross remarked that even supposing an isolated position were chosen for this projected cremation-house, the question for Government would then be whether it would allow such a new system to be introduced publicly into the country without first making certain special inquiries, and, in fact, whether at all without Parliament being first consulted. If they would furnish him with the name of the projector, he (Mr. Cross) would communicate with him at once. Mr. Cross also suggested that the deputation, and the aggrieved inhabitants of Woking and its neighbourhood, should apply to the Court of Chancery for an injunction, on the ground that the process of getting rid of the human body by cremation must cause a public nuisance. But the deputation did not know whom to attack. They had no prospectus of any cremation company to show, and knew only the name of an engineer to a believed-in-company.

The City Commissioners of Sewers at their meeting last week received the report of their solicitor in regard to the refusal of the Lord Mayor to condemn certain sacks of plaster of Paris imported into this country as wheat meal. According to the legal view of the matter the Lord Mayor appears to have been right in his decision, counsel's opinion being quoted in support of this assertion. But it was also stated that it was no fault of the Medical Officer of Health that he over-estimated the powers given him by the Adulteration Act, and it could be easily understood that Dr. Saunders, finding himself face to face with so serious and pressing an emergency, did not closely scrutinise the terms of the section, but endeavoured to take action at once. Under these circumstances the solicitor was of opinion that it would be useless to attempt to re-open the matter before the Lord Mayor under the Nuisances Removal Act, but he imagined that all chances of mischief had already been avoided by the application of the Medical Officer of Health having been made in open court, while he was sure the Commission would be pleased to learn that although the law did not seem to warrant the destruction of that particular article, the course adopted by their officers had had the effect of preventing its being offered for sale or used for food. In this instance, therefore, we may assume that the public is not likely to suffer, but it certainly appears desirable that the necessary modifications should be made in the law to render it operative on future occasions. It is not disproved that the stuff was imported as "wheat meal"—a somewhat singular title to apply to plaster of Paris if the article was intended to be honestly sold for the purposes to which the latter substance is generally applied; and it is somewhat incredible, to say the least, that plaster of Paris should be deliberately adulterated with flour!

It would appear that the statement which has been made public, that the Admiralty has finally decided to close the Yarmouth Lunatic Hospital, is not correct. What has been determined upon is, that the number of entries of lunatics at

this Hospital shall be lessened. It has been ordered that no man shall be sent there who has not a life claim upon the service, and that those artificers, bandsmen, and domestics who enter merely for a ship's term of service shall be sent to their respective parishes. Further, no man who becomes insane after he has been discharged from the Navy will be admitted to Yarmouth unless it be shown that his insanity is clearly attributable to the service.

The *Athenæum* understands that there is really a prospect of Christ's Hospital being moved before very long from its present site, which, from its central position, is said to be worth at least £600,000. To erect new buildings would, it is supposed, cost one-third of that sum, leaving the balance free to still further increase the ample revenue of the institution. This will permit an addition to the number of scholars, and there is some likelihood that the benefits of the endowment will be extended to girls as well as to boys.

Much opposition has recently been shown at Wakefield by some persons to having their children vaccinated. At the Court-house, one man, being summoned, pleaded that two of his children had suffered martyrdom from vaccination, one being a mass of corruption. Another said that he would not have his child vaccinated, but would pay the penalty as long as he could, and when he could not he would go to another country. One of the followers of Johanna Southcote urged as an excuse that vaccination was against the law of Moses. It is satisfactory to be able to add that all the defendants were ordered to have their children vaccinated at once.

At the annual meeting of the subscribers to the Portsmouth, Portsea, and Gosport Hospital, which was recently held, a report was given which must be highly satisfactory to the Committee of Management and all concerned, since the financial position of the Hospital was shown to be far better at the present time than it had been for some years past. In 1875 there was a deficiency of £206; there is now a balance in favour of the Hospital amounting to £471. In consequence of this increased support the Committee have been enabled to improve the ventilation of one of the wards, and to fit up four additional beds for women, and add five beds for children. The funds of the charity have been greatly assisted by the substantial results of both Hospital Sunday and Saturday collections, and the decrease in the amount of the annual subscriptions was only trifling during a year of most unexampled depression in trade. The report submitted was unanimously adopted, and the charity is to be congratulated upon having carried out its meeting this year without the petty bickerings on religious topics which were so unnecessarily introduced upon the last occasion.

With some formal ceremonies, in which Mr. Cowper Temple and Lord Henry Scott, members for the division, took part, the South Hants Waterworks were last week duly opened. This new water-supply is drawn from the chalk at Mitchell Marsh, about five miles from Romsey, where a million gallons a day of the purest water are obtained. At a luncheon which followed the ceremony, Lord Henry Scott, in responding to a toast, congratulated the Company that in England such important undertakings as the present were carried out by private enterprise, whereas on the Continent such works were the monopoly of Governments.

At last week's meeting of the Metropolitan Board of Works, a report was presented from the Works and General Purposes Committee as to the conditions under which sewage from North Woolwich is discharged into the river Thames by the North Woolwich temporary outlet, under the control of the Woolwich Local Board. The engineer has reported to the Committee that the outlet in question receives the drainage from houses in North Woolwich, and from 200 to 300 houses in East Ham, beyond the metropolitan area. The sewage, it appears, accumulates up to, and stands, four feet deep in the outlet in dry weather, being 15·9 below high water. It consequently begins to discharge two hours before low water, and empties its contents in about half an hour. The engineer suggests that the Woolwich Local Board should be informed that the admission of the sewage of East Ham into their outlet, which they have sanctioned, is illegal, and must forthwith be discontinued; and also that one or other of the best-known modes of precipitation or purification be established at this outlet in order to test its efficacy and cost. The Committee understand, however, that there is a probability that an arrangement will shortly be made for including the portion of the parish of East Ham referred to within the jurisdiction of the Local Board of Health for the district of West Ham, and in these circumstances they report that in their opinion it is not desirable for this Board to take any action in the matter at present. Their report was accordingly agreed to.

The scheme for the drainage of Hanwell, which for three years has been stoutly opposed by a most influential section of the inhabitants, has recently been investigated by Mr. Thornhill Harrison, C.E., acting for the Local Government Board. His decision is, that a sewer such as that proposed, having for three-quarters of a mile so slight a fall as is contemplated in the scheme, would constitute a danger to the health of the town of Hanwell, and he declined to take the responsibility of recommending the work unless it could be shown to his satisfaction that no other scheme was practicable. In the face of such a declaration the promoters admitted that it would be useless for them to proceed, and they accordingly withdrew their application. At the close of the proceedings Mr. Harrison suggested to the parties that, having now fought the matter out, it would be very desirable for them to take united action in support of some really effective scheme.

At the Stafford Assizes, on Saturday last, a case was heard in which a miner sued one of the surgeons of the Longton Cottage Hospital for the alleged negligence of his assistant in the treatment of a fractured limb. The plaintiff had both bones of his left leg broken a few inches above the ankle, by a fall of coal from the roof of the pit in which he was at work. He was taken to the Hospital, which is attended gratuitously by five surgeons in fortnightly rotation; and the assistant of the defendant reduced the fracture and put on splints and bandages, which, however, were removed on the following evening, as erysipelas had then supervened. The leg was poulticed, and placed between sand-bags; and this system of treatment was approved by the defendant and another surgeon present. Eventually the plaintiff was discharged with his leg healed, but distorted and practically useless. His case was that the assistant was inexpert, and that the proper appliances had not been employed. It was shown, however, in the course of the case that the assistant was expert, and that the defendant, although in ill-health at the time, had frequently attended the case. Moreover, the erysipelas had been so widespread and violent that no other treatment of the fracture could have been safely adopted. Eventually the jury agreed to find their verdict for the defendant, the learned Judge pointing out that the alleged negligence was satisfactorily disproved.

At a special meeting of the Town Council of Leith, held last week, it was resolved to recommend the carrying out of an improvement scheme, under the Artisans' Dwellings Act, at a cost of £60,000.

THE PHYSIOLOGICAL ACTION OF PLATINUM.

PLATINUM is one of the metals whose action on the living organism we know very little about. Therapeutically it is at present nowhere. And yet some recent researches made by Herr Kebler at Strasburg show that its properties are in some respects peculiar. The salt used in these experiments was the double chloride of platinum and sodium, a solution of which containing 0·050 platinum in one cubic centimetre was injected in varying quantities under the skin of frogs and into the veins of warm-blooded animals. In frogs, three to fifty milligrammes of the metal first caused increased general reflex irritability, and then the voluntary movements become paralysed, while spontaneous convulsive twitchings of the limbs or of certain groups of muscles occurred, which ceased on division of the medulla oblongata. In rabbits, twenty-five to fifty milligrammes of platinum, and in dogs forty-five to ninety-five, caused profuse diarrhœa when injected into the jugular vein. In dogs, blood generally appeared in the motions, and vomiting was not uncommon. Hyperæmia of the mucous membrane of the stomach and intestine occurred in rabbits, but in dogs all the abdominal viscera were hyperæmic, even the nerve-trunks being involved, while the digestive mucous membrane was softened and infiltrated with blood. The bladder of dogs poisoned with large doses of platinum was sometimes ecchymosed. The action of the salt on the circulation mainly showed itself in a continuous fall in the blood-pressure, with scarcely any alteration in the frequency of the pulse. This fall appears to depend entirely on dilatation of the bloodvessels, especially those of the abdomen, owing to paralysis of the terminations of their peripheral nerve-fibres. The excessive stagnation of blood in the abdominal vessels, due to their dilatation, Kebler regards as the cause of the morbid phenomena occurring in the digestive tract. He is also inclined to refer the nervous symptoms met with in frogs, in part at least, to the vascular dilatation, though unable to exclude the possibility of a direct action of the platinum on the central nervous system. We record these experiments without suggesting in what way they may be made therapeutically serviceable. One thing, however, seems clear, that the peculiar action of platinum was scarcely likely to prove of much value in the treatment of syphilis, the disease in which it has as yet been chiefly tried.

THE ARMY MEDICAL SCHOOL.

THE thirty-seventh session of the Army Medical School, which had been attended by fifteen candidates for India, and three for the Royal Navy, was brought to a close on the 3rd inst., when the results of the final examination were read out in the lecture-room, and the prizes awarded. There were present Sir Joseph Fayrer, K.C.S.I., and several guests, in addition to the staff of the School and the Royal Victoria Hospital. The Herbert Prize (awarded to the candidate first on the list) was won by Mr. T. H. Sweeny, of H.M. Indian Medical Service, after a very close competition. The same gentleman also won the Parkes Memorial Bronze Medal, now given for the second time. The Martin Memorial Medal was awarded to Mr. D. F. Barry, of H.M. Indian Medical Service. In presenting the prizes Sir Joseph Fayrer, after congratulating the recipients, addressed the candidates, and pointed out to them the advantages which their future career in the public services offered, assuring those destined for India that any man of moderate ability, and willing to work, was certain of finding his services appreciated, and being able to earn both honour and emolument; whilst to those of the Naval Service he held up for example the many distinguished men their service had produced, instancing Spencer Wells, Hooker, Huxley, and Macdonald. He took occasion to refer to the importance and value of the Army Medical School, and expressed a hope that its scope would be considerably enlarged, both by a prolonged course of study for those entering the Services, and by the provision of better and more extended accommodation, so as to admit of officers on return from abroad taking advantage of its instruction for their professional improvement and advancement in new branches of study. Reference was also made to the absence of Army candidates, and a hope was expressed that the new arrangements contemplated might be such as to induce a sufficient number of good men to present themselves in the future. He congratulated Professor Maclean on his happy recovery from his late serious illness, and the proceedings then terminated with a lunch at the officers' mess.

THE SERVICES.

THE following are lists of candidates for commissions as Surgeons in the Indian and in the Naval Medical Services who were successful at both the London and Netley examinations on the 3rd inst.:—

Indian Medical Service.

	Marks.		Marks.
1. T. H. Sweeny(a)	5171	8. C. G. W. Lowdell	4264
2. D. F. Barry(b)	5115	9. H. B. Briggs	4246
3. G. F. A. Harris	5093	10. W. P. Carson	4235
4. J. Anderson	5073	11. A. S. Faulkner	3836
5. C. J. Bamber	4618	12. C. Mallins	3834
6. M. O'Dwyer	4604	13. E. M. Damla	3236
7. E. H. Dumbleton	4415	14. R. M. Allen	3186

15. H. St. C. Carruthers . . . 3089 marks.

Naval Medical Service.

	Marks.		Marks.
1. A. M. French	3507	2. E. H. Williams	3504

3. E. Fergusson . . . . . 3176 marks.

TYPHOID FEVER SPREAD BY MILK.

AT the quarterly meeting of the Corporation of Dublin, held on Monday, the 3rd inst., the Town Clerk read a report on an outbreak of suspected "milk typhoid" by Dr. Cameron, Medical Officer of Health, with a recommendation that the Local Government Board for Ireland should be invited to hold a sworn inquiry into the case. Dr. Cameron stated that he had ascertained that the households of a large number of persons, in which typhoid fever had lately occurred, had been supplied with milk from a dairy kept by a man who had for more than six weeks been laid up with fever. On visiting the premises he found that the dwelling-house was beside the yard and sheds in which the cows (twenty-three in number) were kept, and a door from the house opened directly into the yard; and the refuse matter of the house was deposited on the floor of the yard close to the cows. There were shelves against the outer wall of the house, but in the yard and on these there were numerous vessels placed. The dairy work, in fact, appeared to be largely carried on in the yard. The chief fact to notice was that in a house, in which a man lay ill of typhoid fever, the only receptacle for refuse was the floor of a small yard surrounded by cows. Dr. Cameron's report concluded with the suggestion "that a thorough survey of the dairy yards be made at once, in order to elicit the following information:—1st. The number of cows. 2nd. The length and breadth of the yards and sheds. 3rd. Whether or not a dwelling-house is in connexion with the dairy; and 4th. If so, the number of persons inhabiting it. 5th. The position of the place where the milk is kept and strained. 6th. The sanitary accommodation provided; and 7th. Where situated. 8th. Whether or not any persons are ill or have recently been ill in the house, and if so, with what disease." A resolution was

(a) Gained the Parkes Memorial Bronze Medal and the Herbert Prize.
(b) Gained the Martin Memorial Medal.

unanimously come to, praying for a sworn inquiry by the Local Government Board into the subject-matter of Dr. Cameron's report. The circumstances brought forward in this report by Dr. Cameron throw some light on the causes of the excessive death-rate of Dublin, and show the urgent need which exists for a searching inquiry into the sanitary condition of that city.

THE DISTRIBUTION OF DISEASE.

MR. ALFRED HAVILAND, M.R.C.S.E., recently delivered a lecture on "The Distribution of Disease popularly considered," at the rooms of the Society of Arts. The lecturer explained in the outset that distribution of disease meant the mode in which any disease affected certain localities; and the study of this branch of knowledge involved, first, accurate statistical records of deaths and cases of the disease to be investigated, and a sound knowledge of the physical and geological characters of the countries in which it existed, the social characteristics of the people, their employment, and every other factor that might help to account for the phenomenon of the disease investigated. Mr. Haviland then, through the medium of mortality maps prepared by himself, pointed out that scarlet fever seemed to have a firm hold on the north-western and northern counties of this country, and these divisions had extended their influence to intermediate groups. These maps were, he believed, of essential service to medical officers of health, and to those who wished to avoid epidemic centres. The map exhibited by Mr. Haviland represented 374,299 deaths during the twenty years from 1851 to 1870. The average annual rate of mortality from scarlet fever was shown to have increased during the last decennial period from 8·8 during 1851-60 to 9·7 during 1861-70 for every 10,000 persons living. A map showing the degree of the prevalence of heart disease in different parts of the kingdom served to show the connexion between the mortality from this cause and the geographical features of the country, and elicited an opinion from the lecturer that the great majority of heart-disease cases in this country had their origin in rheumatism, and in many parts of England that the disease was endemic. Throughout the length and breadth of England it was found, after mapping the Registrar-General's statistics, that from cancer the same kind of localities had the same rate of mortality, this latter being highest in those districts which skirt the banks of rivers that are periodically flooded. The Thames was found to run through a vast cancer-field, while in the high and dry spots, geologically composed of non-retential soils, cancer did not thrive. It was suggested that a knowledge of these important facts would indicate that the rheumatic, and those in whose family a tendency to cancer existed, should seek localities in which these diseases were not prevalent. A map of the distribution of consumption in females showed a state of things nearly the reverse of that obtaining in the case of cancer. A discussion followed the lecture, in the course of which the importance of having a registration of diseases, as well as of mortality, and of making the registration districts depend upon the physical features of the country, were strongly urged by the different speakers.

INSANITY IN NEW SOUTH WALES.

THE report of Dr. Norton Manning, Inspector of the Insane for New South Wales, for the year 1877, shows that whereas on December 31, 1876, the number of persons under treatment was 1740—1605 in public asylums, and 135 in licensed houses,—on December 31, 1877, the number of registered patients had increased to 1829, giving an increase of eighty-nine during the year. This increase was partly provided for by the establishment of a temporary asylum at Cooma. The recoveries give a percentage of 44·86, and the cases relieved a percentage of 7·81 on the admissions: so that a total of 52·67 per cent. have been so far benefited by asylum treatment as to be able to resume their avocations, or live under the care of friends. The deaths amounted to 117, or 7·05 per cent. of the daily average number of patients resident. This proportion is somewhat in excess of that for the year 1876, but is considerably below the English proportion, which was 10·08 for the year 1876, and an average of 10·27 for the last eighteen years. Cerebral disease was the cause of death in no less than sixty-one cases, general paralysis of the insane heading the list with a total of eighteen cases. The cost of maintenance in the public asylums during the year was 12s. 9½d. per week, the average daily number resident being 1699. The Cooma Asylum not having been in existence for the whole of the year, the cost cannot be accurately stated, but it has been largely in excess of that for the other institutions. Dr. Manning has appended to his report plans of the new asylum which it is proposed to build at Callan-park, capable of accommodating 666 patients; and, bearing in mind the rapidly increasing number of insane in the colony, he advocates the early completion of this institution to obviate inconvenience, and the additional expenditure for temporary buildings.

SKATOL.

A BODY of considerable interest as a product of the decomposition of albumen in the human intestine was discovered in 1878 by Brieger. On distilling human fæces with dilute sulphuric acid, several members of the fatty acid series, including acetic, valerianic, and caproic acids, passed over; and on further distilling the residue with acetic acid—phenol, indol, skatol, and a yellow oil of very penetrating odour, which has not been further examined, collected in the receiver. Skatol resembles indol in crystallising in white lamellæ and in its intensely fæcal smell; it differs, however, from indol in being less soluble in water, in having a different melting-point, and in giving with fuming nitric acid a whitish cloudiness, instead of a red tint. Brieger failed to obtain any skatol by distilling the fæces of dogs. It has been long known that by melting caustic potash in contact with albumen a substance was formed having a strong odour of fæces, and some of the chemists who examined it called it "pseudo-indol," owing to the many points of resemblance between it and indol. Herr Nencki of Berne has, however, lately discovered that the so-called "pseudo-indol" is a mixture of indol and skatol. He has further shown (*Centralblatt Med. Wiss.*, No. 47, 1878) that if finely divided muscle be allowed to remain in contact with chopped pancreas in the presence of water for several months at the ordinary temperature of the air, instead of indol, only skatol is present at the end of the operation. By distilling the putrid solution thus prepared with acetic acid, the skatol passes over into the receiver, and can be precipitated by picric acid after acidifying with hydrochloric acid. By redistilling the combination of picric acid and skatol with liquor ammoniæ, pure skatol passes over, and can be crystallised from hot water. The skatol thus obtained has a melting-point of 95° C., and in all respects resembles the body prepared by Brieger from human fæces. Its provisional formula is C_9H_9N. It is a point of great interest with regard to skatol, that while within the body, and at the ordinary temperature of the body, only a few hours are necessary for its production, at least five months should be required at a much lower mean temperature outside the body. Herr Nencki points out that this observation offers the first satisfactory proof that the products resulting from the action of an organised ferment, such as that of the pancreas, should

vary with the temperature. Another property of skatol deserves mention in connexion with the observations which have been recently made on the excretion of indican in the urine. If small quantities (0·01 to 0·02 gramme) are injected under the skin of a rabbit, the urine becomes violet red on the addition of hydrochloric acid and chloride of calcium, and even of hydrochloric acid alone. Probably therefore part of the skatol formed in the human bowel is absorbed, and passes in an altered form into the urine. The greater part, however, according to Brieger (*Centralblatt*, No. 30, 1878), is simply excreted with the fæces.

THE BRITISH MEDICAL BENEVOLENT FUND.

At the annual meeting of the British Medical Benevolent Fund, Sir George Burrows, Bart., President, in the chair, the Treasurer reported that £782 had been paid to forty annuitants, and £1385 distributed in grants at the monthly meetings of the Committee. In the report of the Committee it was stated that the applications for relief had been so numerous and urgent that in November the funds were absolutely exhausted, but on this being made known, privately and in the medical journals, the friends of the charity had come to its assistance, and had not only enabled the Committee to meet immediate necessities, but to replace the reserve fund. Many of the cases, medical men and widows, were said to be so destitute that the sums voted were distributed in weekly instalments, and the Chairman of the Committee, Dr. Jonson, had sent out in this way more than 2000 bank cheques during the year. In other instances whole families are saved from ruin; and a case was mentioned in which a widow and family of girls, who had been left well provided for, but who had lost everything through the fraud of a trustee, and were dependent on their own exertions, came under the notice of the Committee at a moment when the entire family had been prostrated by scarlet fever, and the lives of some of them were actually endangered for want of nourishment. Liberal assistance was afforded; all recovered, and the young ladies, who supported their mother and themselves, returned to their occupations. Continued support is earnestly requested, and contributions may be sent to the Treasurer, Dr. Broadbent, 34, Seymour-street, Portman-square; the Chairman of Committee, Dr. Jonson, 16, South Eaton-place; or the Hon. Financial Secretary, Mr. Herbert Page, 28, New Cavendish-street.

DUBOISIN.

A new alkaloid has lately been extracted by MM. Holmes and Gerrand (*Bulletin de Thér.*, xciv.) from *Duboisia myoporoides*, an Australian plant belonging to the order Solanaceæ. This alkaloid is of a yellowish colour. It is only soluble in water in the proportion of one in 120, but readily dissolves in alcohol, chloroform, ether, benzol, and bisulphide of carbon. The sulphate and bromide are its only crystallisable salts. The reactions of the sulphate are identical with those of atropia; in fact, the alkaloid is also closely allied in its physiological properties to the latter. It dilates the pupil even more actively than atropia. One milligramme dissolved in water and injected subcutaneously checks night-sweats efficiently; and Marmé has found that "if dogs are so far poisoned with morphia that the heart's action has fallen to two or three beats in five seconds and the respiration has become irregular, the injection of small doses of duboisin beneath the skin immediately strengthens and accelerates the heart, and quickly renders the breathing regular." Hence, as an antidote to morphia, duboisin appears to be as useful as atropia. In frogs the injection of 0·01 gramme in aqueous solution produces tetanic convulsions after a variable period of from two to twenty-four hours. The price of duboisin is at present very high; it is advertised by Schering of Berlin at 40 marks, or £2, per gramme.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

The annual courses of lectures for the present session will be commenced on Monday next, the 10th inst., by Professor W. K. Parker, F.R.S., who will deliver nine lectures on the Evolution of the Vertebrata. He will be succeeded by Professor W. H. Flower, F.R.S., who will also deliver nine lectures on the Comparative Anatomy of Man, in continuation of his course of last year. On the completion of Professor Flower's lectures, the theatre being required for the examinations, there will be an interruption until June, when Professor Jonathan Hutchinson will commence his course of six lectures on Certain Diseases of the Eye, Skin, and Joints which are produced through the influence of the Nervous System; after which, Mr. B. T. Lowne will conclude with three lectures on the Physiology of the Nervous System. The lectures are given on Mondays, Wednesdays, and Fridays, at four o'clock (except on Friday, the 14th inst., when Professor Humphry, F.R.S., will deliver the Hunterian Oration).

SOCIETY OF ARTS: CANTOR LECTURES.

The second course of Cantor Lectures this session will be by Dr. W. H. Corfield, M.A., on "Dwelling-houses, their Sanitary Construction and Arrangements." It will consist of six lectures, to be given on the following dates:—Lecture I. (February 17).—Situation and Structure of House—drainage of soil, foundations, walls, roof, rain-water pipes, etc. Lecture II. (February 24).—Ventilation, Warming, and Lighting—size of rooms, overcrowding, ventilators, stoves, lights, etc. Lecture III. (March 3).—Water-Supply—sources, systems of service, cisterns, pipes, filters, etc. Lecture IV. (March 10).—Removal of Refuse Matters—dust, kitchen refuse, earth-closets, etc.; conservancy and water-carriage systems compared. Lecture V. (March 17).—Sewerage—main sewers and house branches, traps, ventilation, etc. Lecture VI. (March 24).—Water-closets, Sinks, and Baths—arrangements of pipes, traps, etc. The course will be illustrated by specimens and models from the Parkes Museum of Hygiene.

DEATH OF DR. JOHN BARKER, OF DUBLIN.

We regret to announce the sudden death, on the morning of Sunday, the 2nd inst., of Dr. John Barker, the Curator of the Museum of the Royal College of Surgeons in Ireland. On the Friday evening previous to his decease, Dr. Barker was present at a meeting of the Surgical Society, in his usual health and spirits. On Saturday night he retired to rest as usual, and next morning was found asleep—but the sleep was the sleep of death. Dr. Barker was sixty-three years of age. He was a graduate in Arts and in Medicine of the University of Dublin, and a Fellow of the Royal College of Surgeons in Ireland. By his death the Curatorship of the Museum and an Examinership in the Royal College of Surgeons become vacant.

THE MEDICO-CHIRURGICAL SOCIETY.

We are requested to state that, in connexion with Mr. Jonathan Hutchinson's papers next Tuesday, "On Ophthalmoplegia Externa, and "On a Recovery from True Leprosy," several patients will attend for examination by the Fellows before the meeting. They will be there at eight o'clock.

THE HAMPSTEAD SMALL-POX HOSPITAL CASE.

It will be remembered that the defendants in this case have obtained a rule *nisi* to set aside the verdict on the ground that it was against evidence, and also on the ground of misdirection to the jury. On Monday last the Attorney-General,

on behalf of the defendants, moved to add the following to the grounds for a new trial—viz., that the judge ought to have nonsuited the plaintiffs, the defendants being authorised to erect and carry on the Hospital by the Poor-Law Act, 1867, and by the orders of the Poor-Law and Local Government Boards; and that the judge ought to have asked the jury whether the Hospital could have been carried on without being a nuisance. The case is to be taken, after the circuits, before a court composed of three judges.

SMALL-POX IN BRAZIL.

The following is an extract from a private letter received January 31, from Pernambuco, dated January 11, 1879:—

"I am surprised at the paltry mention that the fearful plague in Ceará gets in the London papers, when the New Orleans and Memphis yellow fever obtains so much sympathy and notice all over the world. The total deaths from yellow fever in the above-named places amounted to some 11,000 or 12,000 altogether; whereas in Ceará, during the months of November and December, small-pox alone swept away 30,000. The population of Ceará in 1874 was 85,000, but the drought of course brought down people by thousands from the interior. Before the small-pox broke out, the population had increased to 125,000: to-day it is impossible to say how many they number, as the people still continue coming down from the country. S. verified 808 deaths in one day; he went some eighty miles up the country, and saw three cases of cannibalism. The cemeteries have long since been filled. Graves are supposed to hold twelve bodies; but so great was the demand for space that often twenty-five were put into the same hole; there is no burial service, and the diggers faint while digging, from the fearful stench. These are all solemn facts, and yet in Europe no notice is taken of them, and no help offered. The Europeans from Ceará are almost all in Pernambuco, waiting for the plague to pass over. The wife of the President of the province died of the 'black plague,' as it is called, being an exaggerated form of small-pox. In two hours her body was in a state of decomposition. The roads and streets are patrolled by soldiers day and night, to see that no bodies are buried in any other place than that ordered by the Government; and every corpse has to be carried along the sea-shore, to the lee side of the town, where is the place of burial; and an English engineer states that the sight along the beach is fearful and disgusting. The plague is worse than anything ever seen, not even excepting the cholera-plague. These accounts have been in our Brazilian papers for some time, but I did not give much credence to them until I heard them verified by an eye-witness. The hotel he stopped at averaged a death a day, and the very attendants of the house waited on their guests with unhealed scabs on their faces. It cannot travel here, happily, for the reason that there is no material to work on; it is confined to Ceará—the fearful droughtwhich has afflicted that province having so weakened the people, from bad and insufficient food."

British Medical Association, Dublin Branch.—At the second annual general meeting, held at the King and Queen's College of Physicians, January 30, 1879, the following members were unanimously elected to serve as officers and Council for 1879:—*President:* Samuel Gordon, M.D. *President-Elect:* Robert McDonnell, M.D., F.R.S. *Vice-Presidents:* Thomas Hayden, F.C.P., Alfred McClintock, M.D. *Council:* Isaac Ashe, M.B.; Lombe Atthill, M.D.; Edward Bennett, M.D.; Thomas Darby, F.R.C.S.I.; T. W. Grimshaw, M.D.; Edward Hamilton, M.D.; Samuel Haughton, M.D. (Clerk); Henry H. Head, M.D.; Alfred Hudson, M.D.; Edward Mapother, M.D.; George H. Porter, M.D.; and William Stokes, M.D. *Representatives on the General Council:* Isaac Ashe, M.D.; Rev. S. Haughton, M.D.; A. Hudson, M.D.; James Little, M.D.; A. McClintock, M.D.; G. H. Porter, M.D.; and Wm. Stokes, M.D. *Hon. Secretary and Treasurer:* George F. Duffey, M.D., 30, Fitzwilliam-place, Dublin.

FROM ABROAD.

Professor Volkmann.

In a letter addressed from Halle to the *Boston Medical Journal* (December 19), Dr. Elliott furnishes some interesting particulars of the treatment pursued by this distinguished surgeon.

"We find Prof. Volkmann exceedingly polite and interesting, and, in spite of a large private practice, daily lecturing to a small class of students, besides spending two or three hours at the hospital. His hospital is quite small, very old, and dirty. The wards are crowded, heated by porcelain air-tight stoves, and poorly ventilated. His operating room is small, and provided with an asphalte floor, which is sloped for drainage. During the operations, which are usually under carbolic acid spray, the wound, the hands of the operator and assistants, are from time to time thoroughly drenched with carbolic acid from a watering-pot. This is allowed to run over the operating table and on the floor, so that soon the whole room swims in carbolic acid. Although a rapid operator, he has so much material that you often see him directing his assistants in their operations, and at the same time operating himself. He is particular that the part to be operated on shall be thoroughly scrubbed with soap and a nail-brush, shaved even if there is no hair, and carbolised, before beginning the operation.

"For Prof. Volkmann's dressings three things are prepared with a special care—namely, thymol gauze, benzoated cotton-wool (3 per cent. and 10 per cent. of benzoic acid), and a bandage of plain gauze. He also uses, instead of the Lister macintosh, a French guttapercha paper, which is cheaper, lighter, and more easily adapted. In applying the dressing no protective is used, except over extensive raw surfaces. The thymol gauze, which is prepared especially soft and flexible, is applied dry to the wound directly, not in carefully folded layers, as is the Lister gauze, but rumpled and wadded, and cut into bunches applicable to the case at hand, for catching the discharge and regulating the pressure. Outside these wads several layers of folded gauze are placed; then comes the guttapercha paper; then often quantities of benzoated cotton, which is prepared very springy and fluffy, and which is especially packed about the edges, where the dressing is apt to lift from the skin. The dressing is held in place by the gauze bandage, which is applied slightly wetted with carbolic acid. The rumpled gauze next the wound renders the dressing more porous, and separates the guttapercha further from the wound, thus doubly guarding against stoppage of drainage by the pressure of the dressing. The gauze bandage, besides being outside the fluffy cotton, is in itself so thin that it yields in the tight places. In dressing a breast Prof. Volkmann uses large quantities of benzoated cotton on an elastic flannel bandage. This can be very nicely adapted to the part with comfort and safety to the patient. The benzoated cotton, which is particularly non-irritating, is quite extensively used, being often applied to granulating surfaces, and constituting the ordinary dressing for small wounds. These details concerning the dressings seem to us especially interesting, because we find Prof. Volkmann operating in a dirty old hospital, so small that many important cases are from necessity treated as out-patients, personally never directing a dressing, and rarely going into the ward, yet having remarkably good results. First intention seems to be the rule, and not the exception. . . .

"This afternoon Prof. Volkmann kindly showed us over his new hospital, which is not yet finished. Although not large, it is quite handsome, and is admirably situated on the highest ground in the town. It is built of brick and wood, mostly in the form of large pavilion wards, which are often not connected by corridors; the wards are high, well-ventilated, with large windows and piazzas on the sunny side. All the floors are made of a polished cement, and are so arranged that they can be easily flooded. There is a well-constructed set of steam-baths. The amphitheatre is so built that the operating table stands in a small L extending out from the main building, and all the sides and roof of this L are made of glass; thus, besides having an excellent light for the operation, the windows are, as it were, footlights for the students in the seats. The hospital is admirably and elaborately arranged for students."

The Yellow Fever.

The *New York Med. Record* (November 16), speaking of the approaching meeting of the American Public Health Association at Richmond, when the yellow fever was to be almost the only subject of discussion, says:—"No better opportunity could be offered than the present one for the making of necessary recommendations. Never before has the public at large been more interested in the suppression of any epidemic. Within the last two months the pestilence has marched 1500 miles along the tortuous course of great rivers, until even the mountain city of Chattanooga has been smitten by it; has attacked 125,000 persons; has caused more than 12,000 deaths; and has damaged the commerce of our nation to the extent of over $200,000,000." In the number for December 14 it is stated that the meeting of the Association, from which so much had been expected in the way of suggestions for prevention of future epidemics, has proved a complete disappointment, the Yellow Fever Commission, which delivered in its report, only furnishing a mass of undigested facts. It also recommended the preposterous proposition that absolute non-intercourse with dangerous ports is the only means of preventing the appearance and spread of the fever in the United States.

The *Boston Med. Jour.* for November 28 and December 5 contains a report of the meeting of the Public Health Association, and also confesses to great disappointment at the discussion on yellow fever. "The Yellow Fever Commission," it says, "unanimously reported their preliminary conclusions, and these are given entire from the fact of their positive statement of points still in dispute even at New Orleans, after a very incomplete investigation occupying only about a month's time, and because of their not containing a single allusion to the sanitary condition of any of the towns visited, bad as that is very well known to be, and important as most sanitarians consider it in estimating the causes of an epidemic or the means of preventing future outbreaks."

These are the conclusions alluded to:—

"1. We have not in a solitary instance found a case of yellow fever which we could justifiably consider as of *de novo* origin, or indigenous to its locality. 2. In respect to most of the various towns which we visited, and which were points of epidemic prevalence, the testimony showing importation was direct and convincing in its character. 3. The transmission of yellow fever between points separated by any considerable distances appeared to be wholly due to human intercourse. In some instances the poison was carried in the clothing or about the persons of people going from infected districts. In other instances it was conveyed in such *fomites* as cotton-bagging, or goods of some description, or bedding and blankets. 4. The weight of testimony is very pronounced against the further use of disinfectants. Physicians in infected towns, almost without exception, state that they are useless agents for arresting the spread of yellow fever; while some of them affirm that these vapours are seriously prejudicial to the sick. 5. Personal prophylaxis by means of drugs or other therapeutic means has proved a constant failure. A respectable number of physicians think the use of small doses of quinine of some service in prevention. 6. Quarantines established with such a degree of surveillance and rigour that absolute non-intercourse is the result, have effectually, and without exception, protected those quarantined from attacks of yellow fever."

Dr. Marvin, House-Physician of the Yellow Fever Hospital at Louisville, Kentucky, furnishes in the *New York Med. Record* (December 21) the characteristics of this epidemic as observed by him in seventy cases. He found that there were two classes of cases—one in which the temperature ranged from 100° to 106°, with a hot, dry skin; and a second with a temperature of from 97° to 100°, with a cold, clammy, and much yellower skin. The latter variety was more fatal.

The symptoms were in the main like those of former epidemics, but a number of interesting characteristics were noticed. The pulse was always irregular, ranging from 35 to 140 beats; it bore no relation to the temperature. The fever was a continuous one, with remissions, but no intermissions. The fauces were red and swollen; the tongue eventually dry and cracked, unlike the flabby and enlarged tongue of malarial fever. From the skin there inhaled the peculiar rotten hay odour always noticed. Herpetic eruptions about the mouth and nose were frequent. The urine had at first a high specific gravity, falling as the disease progressed. It was also inconsiderable in amount at first, and suppression with uræmia had always to be looked out for; it generally contained bile, and *always* albumen, the amount varying very much. There were also granular casts, the amount of the albumen and casts always being in proportion to the severity of the disease, and furnishing a valuable aid in prognosis. Vibriones and bacteria were found in the breath and in the blood, and the proportion of white corpuscles was increased. Black vomit occurred in half the cases, and did not prove so very unfavourable a symptom, as a third of those thus affected got well. There were melænic stools as usual, and a hæmorrhagic tendency was constant, but was easily controlled by a spray of Monsels' solution. The blood oozed from the mouth, nose, eyes, ears, etc. Just before death, the temperature generally fell to 97°, gradually rising after death, and sometimes to 106½° in the axilla, the body remaining warm for twelve hours. The average duration of the disease was four days. Very careful post-mortems were made, the kidneys and liver giving the most uniform lesions. The stomach showed neither erosions, congestion, nor catarrh, the hæmorrhages from it having been passive. The liver was enlarged, and generally of some shade of yellow. The microscope showed more or less of fatty infiltration and fatty degeneration, with occasional increase of connective tissue. The kidneys always showed, under the microscope, their tubules choked with finely granular *débris* and epithelium. There were no important changes in the other organs. The treatment consisted in at once exciting the emunctories to action, especially the skin and kidneys. The patient was then kept cinchonised, and the various symptoms combated as they arose. The cases brought to the hospital were uniformly bad, the disease being generally in the second stage when they were received. The patients had previously suffered from neglect and exposure, and the mortality therefore of thirty-one is not considered high. None of the physicians, attendants, or visitors at the hospital caught the disease, although no especial pains were taken in the way of protection and disinfection.

REVIEWS.

The Science and Practice of Surgery: including Special Chapters by different Authors. By Frederick James Gant, F.R.C.S. Second Edition, in two volumes, revised or re-written, and much enlarged throughout. Pp. 1787.

It is a serious matter to undertake, nowadays, either to recommend or not to recommend a manual of surgery to the student or to the practitioner—because, in the first place, the field is already pretty fully and well occupied; and, in the second place, because a mature consideration of every part of the work ought, in strict justice, to be made before judgment upon it is pronounced. Mr. Gant's second edition has appeared before the public in a much more imposing form than its predecessor, upon which it is, without doubt, a very great improvement. It is now published in two handsome volumes of about 900 pages each, elegantly bound, and in thoroughly good style throughout. It is embellished with a large number of woodcuts, 850 of which are new introductions to the work. The printing is clear, and the illustrations are intelligible, and most of them very graphic; many of them are borrowed from other works, and a few bear a close family resemblance to others we think we have met with elsewhere. If we were to criticise the drawings, we should be disposed to consider them a little rough, but as they are, for the most part, really illustrative of the matters to which they refer, a little want of finish in their execution is not to be dwelt upon too strongly.

In his first edition Mr. Gant explained that he had produced the book single-handed. We think he has done wisely in calling in the aid of others in the production of several of the chapters on special subjects, the names of the authors of which are a sufficient guarantee of the trustworthiness of the information contained in them. The result has been an instructive series of short essays—on the Diseases of the Ear by Mr. Purves, on Dental Surgery by Mr. Tomes, on Deformities by Mr. Adams, and on Diseases of the Throat by

Dr. Morell-Mackenzie; while the chapter on Ophthalmic Surgery has been revised and enlarged by Mr. Power, and that on the Diseases of the Female Genital Organs by Dr. Barnes, though the latter retain for the most part their original form. We are glad to find that Mr. Gant has omitted his Guide to the Examinations at the Royal College of Surgeons, which was bound up at the end of his first edition; such a suggestion to the student of a short cut to a medical qualification not being, in our opinion, a suitable addition to what is intended as an exhaustive description of the science and practice of surgery.

As a whole, it may be said that the reader will find in Mr. Gant's book a fair and pretty complete description of such facts as are generally accepted by surgeons at the present day, and a sufficient reference to the theories which are still under discussion. A rather large amount of space has been devoted to those subjects to which Mr. Gant has given particular attention—viz., to diseases of the genito-urinary organs, and to those of the joints in relation to their treatment by excisional surgery; and here the reader will have the benefit of the author's wide and prolonged experience. The chapter on Diseases of the Genito-Urinary Organs is especially exhaustive; that on Excision of the Joints contains a large amount of information, but the attention is apt to be distracted by the copious statistics and the very numerous summaries of cases, which part of the subject has, we think, been a little overdone.

The student must not expect to find the account of the pathology of inflammation extremely profound, and indeed he is likely to be confused, in reading it, by somewhat obscure comparisons between opposing theories, followed perhaps by more or less vague generalisations. For example, after contrasting the various hypotheses with regard to pyogenesis, the effusion of plasma, the emigration of white corpuscles, etc., Mr. Gant remarks:—"*Pus-production* appears to be governed by conditions analogous to those which regulate the formation of other inflammatory products, and those of nutrition in general. 'Secretory power' would seem to be in operation, regulated probably by 'nervous agency,' and determined by the 'condition of the blood'; possibly also by the 'flow of that blood to the part.'" Other instances of the same nature might be multiplied; and in his dealing with the pathology of tumours the author is not always more happy. Thus he takes a fibro-cellular tumour as the type of his sarcoma, and illustrates it by Virchow's now well-known drawing of a large spindle-celled sarcoma. Again, the class of sarcoma is made to include fibrous, cartilaginous, granulation, and syphilitic growths, whilst the ordinary varieties of sarcoma which are usually recognised do not receive by any means a clear differentiation. We might dwell upon the inadvisability of perpetuating the long and useless list of names that have been applied to the different forms of cancer: *napiform, apinoid, solanoid,* and what not; or upon the fact that melanotic tumours are not by any means most frequently encephaloid cancers; but the fact is that this part of pathology is often so incompletely handled in text-books on general surgery that they are not likely to be consulted for modern information upon such a subject. Any deficiency in this direction must not, therefore, be too strongly insisted upon as outweighing the merits which are to be found in other parts of the book.

The critic is bound to point out what appear to him to be defects, and there are still two to which the attention must be directed. The style is often too diffuse, and, it must be confessed, at times scarcely clear, while it may be thought in places to descend too much to the colloquial or even to the trivial. And lastly, some rather recent improvements in surgery do not, we think, receive sufficient attention at the hands of our author. We were particularly struck with his account of the antiseptic system. Whether Mr. Gant believes in the truth of it or not, he should have remembered that he is writing for the profession at large, on a line of practice which is now very widely adopted; and we think he should have laid before them something more complete than an imperfect description of the procedures which were adopted ten years ago.

But when all this has been said, it must be admitted that Mr. Gant's book is one of very considerable merit, and we are bound to repeat that it will be found, as a whole, in its present form, a very complete and trustworthy guide to practice, and will occupy a very useful place amongst our surgical text-books.

SHORT NOTICES OF BOOKS.

Dangers to Health. A Pictorial Guide to Domestic Sanitary Defects. By T. Pridgin Teale, M.A., Surgeon to the General Infirmary at Leeds. London: J. and A. Churchill, New Burlington-street. Leeds: Charles Goodall, Cookbridge-street and Boar-lane. 1878.

Two years ago Mr. Teale delivered a lecture, which was afterwards published, to the Leeds Philosophical and Literary Society, on "Dangers to Health in our Houses"; and that lecture has now grown into, or at any rate given rise to, this illustrated book. Believing fully in the Horatian maxim,

> "Segnius irritant animos demissa per aurem
> Quam quæ sunt oculis subjecta fidelibus."

Mr. Teale conveys his teachings and warnings much more by pictures than by letterpress, and he does it very effectually; for by help of his plates it is easy to understand the defects of construction that he denounces, and the significance and value of the improvements which he recommends. He holds that if ever we are to secure sanitary legislation, and to have our sanitary arrangements carried out in first-rate workmanship, it must be by the education of the public in the details of domestic sanitary matters. His book points out and illustrates work defective from ignorance, and work defective from dishonesty; and teaches, in a simple, telling, and unmistakable way, "the faults of sanitary construction which it is within the power of the landlord and tenant, as distinct from the public authorities, to remedy and avoid." It teaches us what defects to suspect and look for, how evils arise from them, and how to remedy them when found. The book may be strongly commended to all classes—householders and tenants; architects, builders, and plumbers; medical attendants and officers of health, etc., —and will be found very useful and instructive.

Section-cutting. A Practical Guide to Preparation and Mounting of Sections for the Microscope: special prominence being given to the subject of Animal Sections. By Dr. Sylvester Marsh. With illustrations. London: J. and A. Churchill, New Burlington-street. 1878.

Students who are beginning to work with the microscope will find this manualette very handy and serviceable. Dr. Marsh does not lay claim to originality of methods, but his book is "the outcome of long and extensive personal experience in the cutting and mounting of microscopical sections," and describes clearly, though as briefly as possible, the processes to be carried out. At the same time, though studying brevity, he is careful to give a fulness and minuteness of detail, the want of which caused his own early failures and disappointments in microscopical work. In future editions the illustrations may be advantageously increased in number, and some of those now given may be improved—notably that showing the "method of applying cover" to a section; the present illustration appears to show the needle touching the upper surface of the cover, instead of being inserted "beneath the overhanging edge" of it. The little work deserves to be popular.

A Code of Medical Ethics. By Jukes Styrap, L.M.K.Q.C.P., etc., Physician Extraordinary, late Physician in Ordinary, to the Salop Infirmary. London: J. and A. Churchill, New Burlington-street. 1878.

The frequent applications made to the medical journals for advice on points of medical ethics sufficiently prove that many of the profession feel the want of a written code, and Dr. Styrap, so far as we have been able to look into his work, very successfully meets that want. He deals very fully with the principles that ought to guide medical men in their relations with each other and with the public, and points out how to apply such principles in particular cases. He was for some time Secretary to the Shropshire Ethical Branch of the British Medical Association; he has given much time and thought to the subject of medical ethics; and the code which he has compiled has been critically revised and approved by distinguished practitioners in England, Ireland, and Scotland. He takes for the motto of the work the words "Bear and forbear," and the spirit of the motto breathes throughout its pages. The profession, and the public at large, will find the book a useful monitor and guide.

An Essay on the Systematic Training of the Body. By C. H. SCHAIBLE, M.D., Ph.D., F.C.P., Professor in the Royal Military Academy, Woolwich; Examiner in the University of London, etc. London: Trübner and Co., Ludgate-hill. 1878.

THIS work, which has for its object the advancement of physical education in schools, is a memorial essay, published on the occasion of the first centenary festival of the celebrated German patriot Jahn—"Vater Jahn," as the Germans fondly called him,—an excellent likeness of whom, etched by Herkomer, forms the frontispiece, and of whom a brief biographical sketch is also given. The work itself is divided into two parts—the Historical and the Educational. Part the first gives an outline of athletic exercises or gymnastics as cultivated by the Greeks and the Romans, in the middle ages, and in modern times. In the pages devoted to gymnastics in modern times, Dr. Schaible quotes Luther's enthusiastic recommendation and defence of gymnastic exercises, and describes the labours of Salzmann, Gutsmuth, Ling, Jahn, and Eiselen to introduce the system of the *Turnen*, or "Turners" as Dr. Schaible calls them, throughout Germany. Captain Clias's system of bodily exercises is also mentioned. He was invited to come over to England in 1822, and was Professor of Gymnastics in the Royal Military Academy at Woolwich till the end of 1825. This part concludes with some remarks on the character of modern as compared with ancient gymnastics; and on modern popular athletic exercises, games, and sports.

The second part, which treats of "Physical Education: its Neglect, its Benefits, and the means favourable to its Promotion," is introduced by an extract from the late Dr. E. A. Parkes' valuable little book "On Personal Care of Health." Dr. Schaible next devotes a chapter to the "Neglect of Physical Education," and the evil effects of it; and then considers the effects of systematic physical training on physical, intellectual, and moral development. The last chapter is on the "Promotion of Physical Education."

Dr. Schaible is an enthusiast on this subject, and would have "gymnasia in every primary and secondary school and university; and, besides, a national association, the object of which would be to form gymnastic clubs in every part of the country, and to watch and control physical education in general." A Utopian plan, we fear; but we are at one with him in saying, "Let us develope the mind in a natural and comprehensive manner at the right time: but let us aim, at the same time, to establish harmony between mind and body. The power of intellect alone will not suffice us in time of need; intellectual attainments alone will not secure our happiness; we must have also health, strength, bodily skill, and firmness of will. . . . The true happiness and perfection of man can exist only when he is in full possession of all his faculties."

The book contains a great deal that is well worth attention and consideration; and we will hope that in a future edition of it Dr. Schaible may give more detailed instruction on the subject of physical education, and on the establishment and management of gymnasia.

DISEASES OF THE EAR.—Professor von Tröltsch of Würzburg has recently issued a recommendation that diseases of the ear should form part of the State examination for permission to practise. As with regard to diseases of the eye, those of the ear, by reason of the frequency of their occurrence and the mischief which they produce, and because this mischief may be essentially lessened by proper education and examination of the student, call for immediate attention. The surgical examiners would willingly avail themselves of the aid of *Docenten* of diseases of the ear when these exist in the universities; and at the present time this subject is taught in the German universities by thirty-four professors and *Privat-docenten*. The Editor of the *Berlin. Klin. Woch.*, January 14 (whence the above statement is taken), expresses his opinion—with which most of us will agree—that the number of special subjects of examination is already sufficiently large, and its increase is not desirable. The surgical examiner should test the candidate's knowledge of the chief points in diseases of the ear as part of his general examination; for if the examination is to be rendered too special, other branches of surgery—as, *e.g.*, laryngoscopy, etc.—will put in their claims for similar treatment.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, February 3.

DUBLIN HOSPITAL SUNDAY FUND—ANNUAL GENERAL MEETING OF THE DUBLIN BRANCH OF THE BRITISH MEDICAL ASSOCIATION; DINNER AT THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

THE annual meeting of the friends and supporters of the Dublin Hospital Sunday Fund movement was held in the Leinster Hall, Molesworth-street, Dublin, on Wednesday, January 29. The Right Hon. the Earl of Meath presided. There was a large and influential attendance. Dr. Grimshaw, one of the Honorary Secretaries, read the annual report of the Council, from which it appeared that the total amount contributed by congregations and individuals was £4300 18s. 11d., which shows an increase of £194 4s. 5d. as compared with 1877. The fund has steadily increased since its formation in 1874, from £3306 3s. 2d. in that year, to £4300 18s. 11d. in 1878; and the Hospital Sunday movement in Dublin has been the means of obtaining altogether a sum of upwards of £19,000 for the use of the sick poor, very little of which, the Council believe, would have reached the hospitals through any other channel. The steady increase of the congregational collections is the best proof the Council can give that the fund has fulfilled the intentions of its founders. The total of congregational collections for each year since the foundation of the fund has been—1874, £3131 14s. 2d.; 1875, £3411 18s.; 1876, £3710 16s. 6d.; 1877, £3899 4s.; 1878, £4056 14s. 11d. These proofs of increased support from both old and new friends are most gratifying. The working expenses for the year amounted to £287 1s., being 6·67 per cent. on the amount collected. In pursuance of a resolution of the Council, passed on October 22, 1878, a committee was appointed to inquire into the arrangements for nursing in each of the hospitals participating in the fund. This committee, after three months' careful investigation, presented a valuable and detailed report, in which twelve very excellent recommendations with the view of improving the nursing arrangements are included. The Council consider that the adoption of these recommendations by the participating hospitals would tend much to efficiency, and ultimately result in more economical administration. In reference to an application for a grant from the National Orthopædic Hospital, the Council express an opinion that the existence of a second institution of the kind in Dublin is unnecessary, and believe that the Dublin Orthopædic Hospital, now established for three years, would, if gradually extended, meet all the requirements of the particular class of cases for which such institutions are intended. The Council further point out that there are also two ophthalmic hospitals doing exactly the same class of work, and both receiving grants from the fund. They believe the multiplication of hospitals—particularly "special" hospitals—is a great evil, calculated to waste resources and prevent efficiency. In the last report the Council had to regret a falling off in the subscriptions received by the participating hospitals. They are glad to be able to state that the subscriptions for 1877 exceed by upwards of £1000 those received in 1876, and by more than £500 those received in 1875. In conclusion, the Council have much pleasure in congratulating their friends and supporters on the continued success of the fund, in spite of the great commercial depression which exists and has existed for some time. The report is signed by the Most Reverend the Lord Plunket, Bishop of Meath. The adoption of the report was moved by Colonel Taylor, M.P., seconded by Mr. Ion Trant Hamilton, M.P., and, after some remarks by Professor Haughton, M.D., and Dr. Atthill, was unanimously carried. His Grace the Archbishop of Dublin moved, and Lord Talbot de Malahide seconded, the appointment of the officers and Council for the year 1879. A vote of thanks to the reverend preachers on Hospital Sunday was moved by the Right Hon. the Lord Mayor, seconded by Viscount Powerscourt; and a vote of thanks to the Press was proposed by Lord Plunket, Bishop of Meath, seconded by Mr. R. W. Boyle, J.P. Both resolutions were carried. Votes of thanks to Dr. Grimshaw and the other Honorary Secretaries, and to

the President (the Earl of Meath), brought the proceedings to a close.

On Thursday, January 30, the annual general meeting of the Dublin Branch of the British Medical Association was held at the King and Queen's College of Physicians, Kildare-street, Dublin. There was a very large attendance of members of the Branch. The President, Mr. George H. Porter, Surgeon to the Queen, having taken the chair, Dr. George F. Duffey, the Honorary Secretary, read the annual report of the Council, from which it appeared that the Branch now numbers 142 members. The report contained the following paragraph:—"We are gratified to be able to state that our relations with the Irish Medical Association continue to be on a footing of complete unanimity. This is markedly exhibited by the fact that the President of the Irish Medical Association is nominated as our President-elect for the ensuing year. We have always felt that distinct spheres of action presented themselves to the Irish Medical Association, as contrasted with ourselves. The unremitting attention bestowed by that Association on Irish professional politics and questions bearing on the general welfare, leaves no field for any rival association to occupy, even if so disposed. But as an integral part of the British Medical Association, which embraces the medical politics of the entire kingdom in the sphere of its operations, the Branch possesses in itself an organisation ready to act whenever occasion requires." The adoption of the report was moved by Dr. Mapother, Vice-President of the Royal College of Surgeons, seconded by Dr. Kidd, and carried unanimously. The President then delivered the annual address. He paid a fitting tribute to the revered memory of the late President of the Association, Dr. Eason Wilkinson; and then, passing from this sad theme, he brought under the notice of the meeting some of the principal objects for the advancement of which the Association was originally founded, and which, from its birth up to the present moment, its members have steadily kept in view. These might with advantage be grouped under the following headings:—First—The scientific culture of profession. Second—The consideration of questions of what may be termed medico-political reform. Third—State Medicine. Fourth—and, although last, by no means least—The development of social intercourse amongst the vast body of the profession through the instrumentality of a great annual gathering, and the meetings of the several branches into which the Association itself has been subdivided. In concluding an address characterised equally by grace of diction and ability, Mr. Porter expressed his deep sense of the services of Dr. Duffey, the Honorary Secretary of the Branch, who had been unsparing of his valuable time in promoting its advancement in every way. Mr. Porter having vacated the chair, it was taken by Dr. Samuel Gordon, President of the Branch for the ensuing year, who briefly thanked the members for the honour they had done him in electing him. Dr. P. C. Smyly, President of the Royal College of Surgeons, moved, and Dr. James Little, Vice-President of the College of Physicians, seconded, a vote of thanks to Mr. Porter for his address and for the able way in which he had presided over the Branch during his year of office. The motion was adopted by acclamation. Mr. Porter then returned thanks. The result of the ballot for the election of officers and Council for 1879 having been declared, the proceedings terminated. In the evening the members and their friends dined together at the College of Physicians. About seventy gentlemen were present.

Tetanus from Hypodermic Injection.—Dr. Ady, of West Liberty Town, relates that he injected into the cellular tissue above the crest of the left ilium of a man sixty-two years of age, fifteen grains of bromide of quinia in thirty minims of dilute alcohol, for the relief of intractable neuralgia of that part. The neuralgia was relieved, but there was more than ordinary inflammation at the site of the puncture, followed by a forming slough. It gave him considerable pain, for which sufficient morphia was ordered to relieve him. He was tolerably comfortable for a day or two afterwards, and able to sit up, but on retiring to rest was seized with tetanus, which terminated in death after twenty-three hours. With the exception of occasional attacks of this neuralgia, he was always in good health.—*New York Med. Record*, December 14.

GENERAL CORRESPONDENCE.

FROZEN SECTIONS OF THE HUMAN BODY.

Letter from Dr. C. Hilton Fagge.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is not perhaps a very important matter to claim any kind of priority in, but as in your issue of the 1st inst. you speak of the frozen sections at the College of Surgeons as the first made in this country, I may be allowed to state that about fourteen years ago, when I was Demonstrator of Anatomy at Guy's Hospital, I made several of them, one of which was copied by Mr. Towne in wax. The model in question represents a transverse section of the chest, cutting the heart just below its valves. It is now in our museum, and I believe it has been of great use to our students.

I am, &c., C. Hilton Fagge.

11, St. Thomas's-street, S.E., February 2.

"THREE MONTHS IN A PAYING WARD."

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention having been called to a notice in your paper of a pamphlet entitled "Three Months in the Paying Ward of a London Hospital," I venture to assure you that the facts therein narrated are neither exaggerated nor of years ago. I avail myself of this opportunity to correct one slight error, which, owing to my carelessness, has crept into the report of my experience in a London hospital in the year 1878.

In deprecating the want of religious advantages, I said that I should gladly have welcomed a clergyman "had one *ever* appeared." The sentence should have been, "had one *oftener* appeared." I desire to make this correction, because I understand that the aged divine, who paid three visits to our ward during my twelve weeks' stay, was incapacitated by ill-health from more frequent appearance. In every other particular the statements contained in "Three Months in a Paying Ward" are within the literal, and can be amply substantiated. Apologising for trespassing on your space,

I am, &c., The Author of "Three Months in a Paying Ward."

February 2.

CLASSES FOR MEDICAL MEN.

Letter from Dr. W. Dale.

[To the Editor of the Medical Times and Gazette.]

Sir,—I was hoping that some of the teachers in our medical schools would have taken up the subject of "Classes for Medical Men," to which you called attention in your journal a month ago, and on the importance of which I dwelt in a short letter the following week, but no sufficient response or notice of it has appeared. It is true that Dr. Norman Chevers states in your issue of January 25 that short courses of lectures on special subjects—*e.g.*, diseases of the skin, diseases of the eye, etc.—have been started in connexion with the London Hospital School, and that further action in the same direction is contemplated. I am in total ignorance of the character of the classes of six weeks' duration recently instituted at Berlin, and referred to in my letter; but I fear, unless Dr. Chevers has much of his plan yet to unfold, that the case will not be met by the lectures he names.

The "furbishing up" which your article commended, and my letter urged upon the attention of our medical teachers, needs to be thoroughly practical, either to prepare men now in practice for a higher grade in the profession, or to bring them level with the ever-increasing scientific and practical knowledge of the day, without their having any more special object in view.

Now—subject, of course, to modification by our medical teachers—I imagine something like this plan might be adopted: that the tutorial staff (which is now, I am led to believe, in connexion with most of our medical schools) should give a daily drill to the medical men in question, subject to a moderate charge; and that they should have access to the dissecting-room, the wards, the out-patients' room, the post-mortem room, and all clinical lectures, free.

Without unduly pressing the seemliness of the manifestation of a spirit of nobleness such as is here recommended on the part of hospital teachers towards their medical brethren who are outside the pale of their own special advantages, and under the circumstances in point, one may at least say that every medical man has a fair claim upon his own *Alma Mater*, to be met in the way I have suggested; and I am much mistaken if many a hard-worked and weary man would not willingly for once give up his accustomed holiday to avail himself of advantages such as I have pointed out. And these, or something not widely different, are the "short classes for medical men" which I submit should be established. I am, &c., WILLIAM DALE, M.D. Lond.

Paradise, King's Lynn, February 3.

[There would be no difficulty in forming these classes, provided a sufficient number came forward to make it worth anyone's while to undertake such a duty; but we fear it must be confessed that former attempts in this direction have always failed.—ED. *Med. Times and Gaz.*]

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 28.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

A STUDY OF THE SO-CALLED TENDON-REFLEX PHENOMENA. DR. W. R. GOWERS recorded a series of observations on the two forms of muscular spasm commonly known under the above designation—that normally produced in the quadriceps extensor of the knee on striking the patellar tendon (knee-reflex), usually absent in locomotor ataxy and excessive in lateral sclerosis of the cord; and that clonic movement which occurs at the ankle-joint on sudden dorsal flexion of the foot, in lateral sclerosis of the cord (ankle-clonus). To ascertain the characters of the knee-reflex it was examined in 300 patients, of whom 150 were the subjects of simple epilepsy. Of the whole 300, it was absent on both sides in 18, of whom 5 were ataxics, 3 paraplegics without ataxy, 1 suffered from old hemiplegia, 1 from vertigo, 1 from tumor cerebri, 1 from old rickets, and the remaining 6 from epilepsy (5 being girls). Two only of the 18 were good walkers. Of 27 hemiplegics the reflex was equal on the two sides in 13, excessive on the weaker side in 14. In 3 cases it was absent in one leg only—two presenting weakness of the leg in which it was present, in the third it was absent in the leg in which the patella had been fractured and the two halves were separate. Of 100 epileptics with good walking power, the movement of the foot in 90 was between one and three inches, it was absent in none, excessive in 6; the average was just two inches. Of 22 epileptics with bad walking power, it was absent in 5 and excessive in 5. The reasons for regarding it as a spinal reflex were strong, especially its loss in spinal disease, its arrest by section of the crural nerve, its radiation to the other leg in animals—which the author had observed in several cases in man (and also a radiation to the back muscles); and, lastly, the graphic study of the movement. Tracings were shown taken in a myograph-drum, the writing-pen being fixed to the foot. The effect of the tap and the muscular contraction were both marked, and were separated by an interval of 0·09 to 0·15 second, the common interval in health and disease being 0·10 or 0·11 second. This corresponded with the time necessary for a reflex action (conduction 0·045 second, latent stimulation 0·01 second, reflex process on cord 0·05 second). Reasons were given for doubting the accuracy of the shorter interval obtained by Tschirjen with the foot fixed. The interval was sometimes occupied—in some cases the latter part only—by a slight rise due to a muscular contraction, probably indicating a direct stimulation of the muscular fibres. As a spinal reflex, the question of the origin of the afferent impulse in the tendon or in the muscle by sudden tension must be left open. Facts were mentioned pointing to the latter view. As a reflex it was arrested by damage to the posterior nerve-roots (as in locomotor ataxy), disease of the grey matter (as in muscular atrophy, involving the quadriceps sometimes, as in a case related when slight only), or damage to anterior roots (as in old meningitis). It was also lost in advanced pseudo-hypertrophic paralysis. Its occasional persistence in locomotor ataxy was connected with slight damage to the posterior root-fibres, as shown by sensation being little or not affected, and commonly by the absence of lightning pains (Buzzard, Westphal). A case of mixed lateral and posterior sclerosis was related, in which sensation was more affected, lightning pains greater, and knee-reflex lost in one leg, while in the other leg the knee-reflex was present, and sensation was less affected, and lightning pains slighter, though occurring. From forty tracings of the ankle-clonus the regularity and time of the movement had been ascertained: from five to seven contractions occurred per second, the average being 6·1. During the intervals the relaxation of the muscle was incomplete, a certain residual contraction persisting. A similar clonus may often be obtained on the plantar adductor pollicis, of which traces were shown, having nearly the time of the ankle-clonus—6·1 per second. A lateral ankle-clonus had been met with by the author in one case, and also a knee-clonus (in the quadriceps), having, however, a much slower time—2·5 per second. In the ankle-clonus did the stimulus act on the tendon, or on the muscle? It could not be excited by any stimulus applied to the tendon which did not increase its tension, and, therefore, which did not act upon the muscle. A lateral tap on the tendon would not cause it if the tendon were carefully supported on the other side. The tendon was very sensitive to a pinch, but that caused quite a different effect. On the other hand, the initial contraction could be excited by tapping the muscle, which could affect the tendon very little. The question of its reflex nature was next considered. The author had found that in cases in which the ankle-clonus could be obtained, and in slighter cases of similar central disease in which it was not obtainable, or had passed away, a tap on the anterior tibial muscles, during passive dorsal flexion, excited a contraction in the calf-muscles, which did not occur when the adjacent tibia was similarly tapped, and so could not be the result of increased tension. This appears at first to be a true reflex; but, on taking tracings, the interval between the tap and the contraction was found to be only 0·03 to 0·04 seconds—insufficient for the mere conduction to and from the cord, and less than half that necessary for a spinal reflex. The stimulation of the muscle must be direct by the vibration of the tap, which could, indeed, even in health be felt by the hand placed on the calf. Other measurements showed that in lateral sclerosis the interval between the tap on the Achilles tendon and in the muscle and the resulting contraction (during passive dorsal flexion) was 0·025 to 0·04 second, and 0·035 to 0·04 second, respectively—quite insufficient for a reflex. Therefore the stimulation of the muscle must be direct, not reflex, and therefore not from the tendon. But that does not exclude all reflex influence; the extreme irritability to local stimulation excited by tension might be reflex. Tension on muscular fibres caused an afferent impression (painful when long continued or after cramp), and tracings showed that the irritability was not developed instantly on the tension first being put on, but gradually, after a period long enough for a reflex. If the tension were previously put on, the first contraction was as strong or stronger than the rest. Hence it was understood why, though local, it occurred in spinal sclerosis. The reflex phenomena in these cases on stimulating the skin or pinching the tendo Achillis were then considered (flexor tonic spasm exciting and broken by the ankle-clonus), and its relation to spinal epilepsy. The intervals between the contractions of the knee-clonus bore the same ratio to those of the ankle-clonus as did the intervals between the taps and the isolated contraction of the knee-reflex to the intervals between the taps on the Achilles tendon and the calf contractions. Hence each contraction of the knee-clonus was probably reflex, excited by the sudden tension on the muscle from the effect of the preceding contraction. In the calf and great toe muscles the sequence of tension and contraction occurred at each step in walking, and a physiological reflex between the two was probably developed in the act of learning to walk. The author had never seen the ankle-clonus in spastic paraplegia in a child who had not walked. A reflex relation between tension and contraction probably played an important part in the co-ordination of often-repeated movements, and its loss might be part of the pathological state in locomotor

ataxy, in which the allied knee-reflex was also lost. The ataxic and the child learning to walk might thus be similar in this condition as in appearance. If this view of the ankle-clonus be correct, it should be a normal phenomenon, excessive in disease. Four tracings were shown of the ankle-clonus, from four normal individuals, the movement having the same time and uniformity as in disease. They were taken in the sitting posture with the foot resting on the ground by the ball, when, if set up voluntarily, the ankle-clonus would go on independently.

Dr. BUZZARD eulogised the paper which had been read, containing as it did—for the first time, he believed—the results of graphic observation of the phenomena by the application of scientific mechanism. In reference to a remark which had fallen from the President, he would say that the study of the phenomena appeared to him extremely important from a diagnostic point of view. The absence of patellar tendon-reflex would give early warning in many cases of incipient locomotor ataxy. Romberg's well-known test (the inability to stand with closed eyes) was not applicable, as a rule, until ataxy was present; but the absence of the patellar tendon-reflex might be noted long before any incoordination was apparent. For the absence of patellar tendon-reflex was always associated, so far as he had seen, with the presence of lightning pains, which belonged usually to the first stage. In one or two cases, which were probably aberrant examples of locomotor ataxy, he had found the patellar tendon-reflex preserved; but there were no pains in those cases. He had never seen it preserved where the characteristic pains in the lower limbs had been well marked. Ophthalmologists would, he thought, find this test of service. They frequently had to do with cases which were styled simple atrophy of the optic disc. In many of these it would be found that the patients suffered from lightning pains, and if the patellar tendon-reflex was absent, incipient locomotor ataxy might, he believed, be confidently diagnosed. The foot-clonus, the evidence tended to show (although this was not yet quite established), was indicative of organic disease of the spinal cord, and hence it might well come to prove a most important diagnostic point as between conditions of hysteria and a disease of the highest gravity. He thought that Dr. Gowers' explanation of the real *modus operandi* of the foot-clonus was established by the experiments which had been carried out with so much precision by the aid of the scientific apparatus described. He must differ from the writer of the paper, however, on one point connected with the patellar tendon-reflex, which the writer had described as being produced by blows upon the quadriceps muscle as well as upon the tendon. A blow upon the vastus internus would produce, as well in ataxics (where the true patellar tendon-reflex was absent) as in persons in health, a slow upward movement of the foot, due to the contraction of a limited portion of the muscle—the part struck upon. He felt sure that this was an example of direct stimulation of muscular fibres by a blow, and that it had nothing to do with tendon-reflex.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a classified list of the gentlemen who passed the Matriculation Examination of this University, January, 1879 :—

Honours Division (in order of merit).—Frederick William Kellett, Exhibition of Thirty Pounds per annum for Two Years; Sophia Bryant, disqualified by age for Second Exhibition; Joseph George Willis, Exhibition of Twenty Pounds per annum for Two Years; Edward John Forse, disqualified by age for Third Exhibition; James Alan Whitehead, Exhibition of Fifteen Pounds per annum for Two Years; Joseph John Findlay, Prize of Ten Pounds; George Stallard, disqualified by age for Second Prize; William Henry Hunt, Prize of Five Pounds; Rebecca Bragg, disqualified by age for Third Prize; William James Beal, disqualified by age for Third Prize; Phani Chushon Mukerji, Prize of Five Pounds; Henry Allen, William Philip Schreiner, Ernest Philip Gaskin, Percy James Edmunds, William Walton, Samuel Jones, Sophia Margaretta Lewis, George William Bater, Edward John Cave, and Marianne Andrews, obtained the number of marks qualifying for a Prize; Edward Burchell Woods, Frank Morley, Frederick William Bennett, Frederick William West, George Watson, Herbert Edward Turner, Leonard Hollingworth Clark, Gordon Crewe Chambres, Emily Tomlinson, Sidney Loney, William Henry Ruston, Henry Morley French, William Charles Northcott, Harry Thiselton Mark, Arthur Hayes Kensington, William John Archer Jellicorse, Charles Frederic Grantham, Alexander Edward Morton, Frederick Haddy Skelton, Frederic Wyles, William Jones, William John Ward, Frederick Womack, James Henry Priestley, Thomas James Bowlker, Mary Clara Dawes, Arthur Macken, Edwin William Clark and Harold Roper (equal), George Hayes Paice, Benjamin Childs, Frederick Goodwin, Edward Gaved Stocker, Charles Downing, Dennis Coyle, Elkan Nathan Adler, Frederic Charles Larkin, John Johnston, William Henry Hodgson and William Ivens Buswell Watson (equal).

First Division.—Moses Abrahams, John William Adamson, Syed Ali, Hermann Friedrich Andresen, Edward Weston Andrews, Edward Harris Armitage, Butler Cole Aspinall, William Frederick Bauquet, Charles Herbert Bedells, William Blaxland Shoppee Benham, Arthur Henry Bennett, Thomas Alexander Bere, Frederic Harry Berridge, Edward Elhanan Berry, Walter Ambrose Bettesworth, Henry Sylvanus Biggs, William Popplewell Bloxam, Charles Frederick Bone, George Simonds Boulger, Francis Alphonsus Bourne, Frank Arthur Brockman Brett, John Jeremy Brigg, William Anderton Brigg, James Harry Ernest Brock, Herbert William Brookbank, John Samuel Browitt, Edward Smith Burkett, Francis Fleetwood Buss, Henry Edward Leigh Canney, Arthur William Carling, John Walter Carr, Henry Carter, Alfred Cattell, Robert James Chalmers, William Charles, Charles Clay, John Nowell Coombe, Henry Charles Evans Cooper, John Crichton, Henry Cromwell, Ernest Edward Crosby, Augustus Edward Crowder, Thomas Henry Rickard Crowle, Joseph Curtis, Ellis George Davenport, James L'Estrange Day, Charles Denman, Thomas Dent, Augustus Frederick Dimmock, Albert Francis Drew, Walter George Earle, Laurence Edward Elliott, John Ellis, Charles Emmott, Evan Evans, John Henry Fletcher, Thomas Johnson Fletcher, Courtenay Cracroft Spurrell Fooks, William Franklin, Arthur Fraser, Parkinson Stanfield Fullbrook, John Philip Glover, Leopold Hugo Bentley Goetze, William John Greenstreet, James Edward Griffin, James Allen Harker, Herbert Wyatt Harrison, Alfred Octavius Hedley, Thomas Arthur Helme, Mary Louisa Heppel, Arthur Hewetson, Arthur Edward Hill, Leonard Hill, Wheelton Hind, Arthur Holah, Charles Holcroft, Herbert Holman, George Foster Holmes, Benjamin James Howarth, Richard Hughes, Walter Hull, Francis Rowland Humphreys, Arnold Eardley Hurry, Moses Hyamson, Lawrence Pearsall Jacks, Frank Herbert Jessell, Charles Jones, Herbert Charles Walter Jones, Eliza Annie Joscelyne, Heinrich Eberhard Just, General Talbot Kelsart, Chaloner Thomas Tapling Kemshead, Thomas Meikle Kenney, Charles Wm. Henry Kieser, Herbert Henry Lankester, Sidney Cameron Lawrence, Walter Venis Lazarus, Charles Edward Longton, Edward Walter Lynch, Arnold Lyndon, John McLynchy, Albert Martin, Walter Bayfield Marvin, Richard Mason, Thomas Mee, John Henry Merrifield, Samuel Marrow Morton, Edward Pain Mourilyan, Edward Noël Nason, James Conder Nattrass, Samuel Negus, Charles Emanuel Neville, Alfred Niblett, Albert Edward Norburn, Herbert Lea Norris, Samuel Norris, Ebenezer Appleby Nuttall, George John Oakeshott, George John Orpin, Alice Mary Palmer, Herbert Teape Paton, James Paul, Emil Wilhelm Ludwig Ulrich Peters, John Henry Phillips, John Pickles, Réné Pierssené, Reginald Walter Geo. Pound, Edward Pearce Powell, Robert Froude Prettejohn, James Allan Pride, John Prosser, Philip Nicholas Randall, Henry Fothergill Redman, Alfred Charles Reilly, Bernard Relton, John Philp Renowden, Jas. Dodds Roberton, Alfred Cope Rodda, Rolla Edward Rouse, Sydney Isaac Samuel, Frederick Gottlieb Schmitz, Geo. Simpson, John Arthur Slater, Alexander Rochfort Smith, George Weeks Smith, Joseph Solomon, William Rudolph Ernest Spence, John Henry Spitsly, Chas. Burnett Stacpoole, John Herbert Stacy, Henry George William Stephens, Thomas Stephens, Thomas Moffit Stevens, John Stuart, James Henry Targett, Harry Cranfeaird Thomson, Arthur George Turner, Arthur Ritchie Upjohn, Edmund Upton, William Henry Basil Valentin, Henry Varley, Frederick Verinder, Arthur Francis Voelcker, Thomas Waddington, Patrick James Wade, William Waite, John Henry Tull Walsh, William Keighley Walton, John James Weaver, Ralph Brown Weir, Frederick Earle Welby, George Lee Wells, Lawrence John Whalley, John Peere Williams-Freeman, Richard Thos. Williamson, Sidney Taylor Williamson, John Parker Wilson, Arthur Francis Wood, David Tomlinson Baird Wood, George Thomas Woods, Frederic Edward Wright.

Second Division.—Frank Rivers Arundel, James Robert Abrahall Bennett, William Spencer Brodrick, Bennett Hooper Brough, Thomas Buncombe, Alexander Cowe, Edward Francis Day, Edwin Harding Eland, Frederick William Farr, Benjamin Henry Flint, Richard Hindle, Valentine John Hussey-Walsh, Charles Edward Lucette, John Ernest Nevins, Henry Rockley, Arthur Everitt Shipley, William Donald Smallpiece.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on January 30:

Blake, Henry, M.B. Lond., St. George's Hospital, S.W.
Carrington, Robert Edmund, M.B. Lond., 13, Loughborough-road, S.W.
Hood, Donald William Charles, M.B. Camb., 48, Green-street, W.
Khory, Rustomjee Naserwanjee, M.D. Brussels, 47, Minford-gardens, West Kensington-park, W.
Kidd, Percy, M.B. Oxford, St. Bartholomew's Hospital, E.C.

APOTHECARIES' HALL, LONDON.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, January 30 :—

Jones, Arthur Lloyd, Llandilo, Carmarthenshire.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Culling, John Chislet, Charing-cross Hospital.
Gwilliam, Richard Davis Hoyle, St. Mary's Hospital.
Makeham, Henry William Payne, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

DAVIES, E., E. C. C., M.R.C.S.E.—House-Surgeon to the London Hospital.

PRICHARD, J. E., B.A. (Oxford), M.R.C.S.—House-Surgeon and Dispenser to the Tiverton Infirmary and Dispensary.

BIRTHS.

BYRNE.—On January 17, at The Tower, the wife of Theodore E. D. Byrne, J.P., L.R.C.P., M.R.C.S., of Elshieshields, Dumfriesshire, of a son.

DAVIDGE.—On January 25, at 23, Maryon-road, Old Charlton, Kent, the wife of Surgeon-Major John G. Davidge, L.R.C.S.I., A.M.D., of a daughter.

MACDONALD.—On January 30, at 39, Charlwood-street, Belgrave-road, S.W., the wife of Stuart Macdonald, M.B., of a son.

PHIBBS.—On January 30, at Pelham House, 30, Sutherland-gardens, W., the wife of Robert Featherstone Phibbs, L.R.C.P., M.R.C.S., of a daughter.

THOMPSON.—On February 1, at Suffolk Place, Sevenoaks, the wife of Herbert Thompson, M.R.C.S., of a son.

WALKER.—On January 25, at Hoatham House, Putney, the wife of Alexander Walker, M.D., of a son.

WIGHT.—On January 31, at 428, Liverpool-road, N., the wife of George Wight, M.B., of a son.

WOODGATES.—On January 29, at Southernhay, Exeter, the wife of Henry Woodgates, M.D., of a son.

MARRIAGE.

WILLIAMS—MOORE.—On February 4, at Tulse-hill, Trevor Wynn Williams, M.R.C.S.E., of Water-lane, Brixton, elder son of A. Wynn Williams, M.D., to Alice Burney, second daughter of the Rev. W. C. Moore, M.A., Vicar of Tulse-hill.

DEATHS.

BENNETT, JULIA, wife of C. H. Bennett, M.D., at College House, Hammersmith, on February 2, aged 48.

DUKE, FANNIE LOUISA, wife of John C. Duke, M.R.C.S. Eng., at The Glen, Lewisham, S.E., on January 30.

HORE, WILLIAM, M.R.C.S., formerly of Lancing, Sussex, on January 31, at Croydon, aged 75.

MACROBIN, JOHN, M.D., Emeritus Professor of Medicine in the University of Aberdeen, at Aberdeen, on January 4.

MARTIN, D. L., M.D., of Melbourne, Australia, on January 19, at Cannes

MILLER, JOHN, M.D., Surgeon-Major, late Staff-Surgeon to H.E. the Governor of Madras, at Elm-grove, Ealing, W., on January 27, aged 51.

NEIL, JANIE, wife of Surgeon-Major A. Neil, M.R.C.S. Eng., Professor of Anatomy and Surgery, Lahore Medical College, on January 5, at Lahore, India.

PORTER, ANGUS MACKAY, M.D., L.R.C.S. Edin., formerly of Belfast, at Torquay, on January 28, aged 38.

WHITE, CHARLES JOHN, M.R.C.S. Eng., late Surgeon-Major 1st Dragoon Guards, at Blenheim-road, N.W., on January 28, aged 46.

WILKIN, ISABEL PYBUS, wife of H. C. Wilkin, L.R.C.P. Edin., of 47, Palace-gardens-terrace, W., at San Remo, Italy, on January 26.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified and registered. Further information may be obtained from Dr. Aitken, Medical Superintendent, to whom testimonials must be forwarded not later than February 8.

RICHMOND INFIRMARY.—House-Surgeon. Candidates must possess a medical and surgical qualification and be registered under the Medical Act. Applications, with copies of (not more than six) testimonials, to the Secretary, the Infirmary, Richmond, Surrey, on or before February 15, from whom any further information may be obtained.

ROYAL ALBERT ASYLUM FOR IDIOTS AND IMBECILES OF THE NORTHERN COUNTIES, LANCASTER.—Assistant Medical Officer. Candidates must possess registered qualifications in medicine and surgery, and be unmarried. Applications, stating age and qualifications, with testimonials, to Dr. Shuttleworth, Medical Superintendent at the Asylum, on or before February 18.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. Candidates must have a qualification in medicine and surgery from one or other of the Colleges of England, Scotland, or Ireland. Applications to Mr. J. B. Shepherd, Hon. Sec., the Dispensary, Stourbridge, on or before February 8.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Applications, with testimonials, to the Hon. Secretary, Tiverton.

WEST LONDON HOSPITAL, HAMMERSMITH-ROAD, W.—Assistant-Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, and not practising as apothecaries. Applications, with testimonials, to be sent in on or before February 18.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population in computed according to the census of 1871.

RESIGNATIONS.

Carnarvon Union.—Mr. O. E. Owen has resigned the Llanidan District; area 13,868; population 3894; salary £50 per annum.

Sheffield Union.—Mr. A. Reckless has resigned the North-West District; area 175; population 19,508; salary £60 per annum.

APPOINTMENTS.

Ashbourne Union.—Edward Crockett, L.R.C.S. Edin., L.R.C.P. Edin., to the Longford District.

Holborn Union.—Wm. P. Hollis, L.R.C.P. Edin., M.R.C.S. Eng., to the Fifth District.

Melton Mowbray Union.—Wm. L. Emmerson, M.R.C.S., L.S.A., to the Waltham District.

Plymouth.—Robert Oxland, F.C.S., as Analyst for the Borough.

St. Albans.—Charles E. Saunders, M.D., as Analyst for the city.

West Derby Union.—Patrick O'Connor, M.D. and Ch.M. Queen's Univ. Ire., as Assistant Medical Officer at the Workhouse.

DR. WALLACE, Obstetric Physician to the Royal Infirmary, Liverpool, has been appointed Lecturer on Midwifery and Diseases of Women in the Royal Infirmary School of Medicine.

TOOTHACHE TINCTURE.—The following is far superior to simple creasote, etc.:—℞. Chlorof. pur., tr. aconit. (Fleming), āā. f℥iij.; tr. capsici, f℥j.; tr. pyrethri, ol. caryoph., āā. f℥ss.; camphoræ ʒ ss.—M. Apply on cotton-wool.—*New York Med. Record*, November 23.

THE ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting on Monday, the 3rd inst. (George Busk, Esq., F.R.S., Treasurer and Vice-President, in the chair), the Marquis of Blandford, Mrs. L. Lawrence, Joseph Mellor, Esq., Mrs. Julius von Mumm, and Major-General Charles Sawyer, were elected members; Warren De la Rue, Esq., D.C.L., F.R.S., was elected Secretary; and William Spottiswoode, Esq., D.C.L., Pres. R.S., Manager. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

AN EARNEST APPEAL.

THE melancholy and sudden death of the late C. J. Axford, M.R.C.S. and L.S.A., of St. Leonards-on-Sea (which resulted from the excessive use of chloroform, inhaled to relieve the severities of asthma), has left Mrs. Axford a widow with three children, for whom there is not the smallest provision.

The members of the medical profession and others are earnestly solicited to contribute to a fund now being raised for their relief.

References to be made to Dr. Adey, F.R.C.P., 1, West Ascent, St. Leonards; Dr. Bagshawe, 6, Warrior-square, St. Leonards; W. Haward, M.R.C.S., etc., 33, Marina, St. Leonards; Dr. Semple, F.R.C.P.L., Torrington-square.

Donations will be thankfully received by Messrs. Coutts and Co., bankers, Strand; W. Haward, 33, Marina, St. Leonards; F. B. Courtenay, 2, Chandos-street, Cavendish-square; G. W. Hind, 22, Gower-street, Bedford-square; at the office of the *Lancet*, Bedford-street, Strand; also by Dr. Semple.

The following (and other) donations have already been received:—

Sir W. Jenner, Bart.	£5	5	0	Dr. Semple	£1	1	0
Sir J. Paget, Bart.	3	3	0	Dr. Watson	2	2	0
Dr. Quain	5	0	0	G. W. Hind, F.R.C.S.	5	5	0

Medicus.—If the account is £2 or more, a receipt-stamp is required. The mode of payment—whether by cheque or cash—makes no difference.

V. M. O.—Apply to Savory and Moore, New Bond-street.

E. T.—Casper's view of longevity is very interesting; he states emphatically, "Marriage is decidedly favourable to longevity."

Mr. Williams.—The movement is spreading. Dr. William Hunter commenced lecturing to a Society of Navy Surgeons in 1746.

Dr. Campbell.—The Hunterian Oration and Festival was established by Dr. Baillie and Sir Everard Home, Bart., the executors of John Hunter. The first discourse was given by Sir Everard in 1814, after which it was annually delivered up to 1834, when, in consequence of the rebuilding of the College, it was discontinued. Since 1853 it has been biennially delivered down to the present time.

Anti-Vaccination.—A correspondent draws attention to the impudent circulars sent anonymously to him, and sometimes not prepaid, and asks what is to be done. We would suggest his sending them to the Secretary of the General Post-Office, who perhaps may know the sender, in which case the delinquent could be summoned, as in the case of the notorious Joseph Ady, and made to pay the postage. We are informed that these documents are constantly sent (paid and unpaid) to the College of Surgeons.

M.D., Clerkenwell.—Dr. Millingen states that in Denmark a diet of bread and water for a month is considered equivalent to the punishment of death.

Untrustworthy, Cheshire.—Thermometers of even some repute are, at times, known to be so capricious, that perfect trustworthiness of record can be obtained only by taking the average of two or three of them placed together. The best observers use what is described as a double-louvre boarded shelter, in which the thermometer is placed at a height of about four feet from the ground. This shelter is never exposed to the sun; and when affixed to a wall, it is by means of supports which hold it out at least four inches from the brick or stone work. The whole apparatus should be fixed quite firmly. Any shaking by the wind may greatly affect the indications given.

Coroner's Law: Jersey.—Some important changes in the present system of conducting coroners' inquests in Jersey, are contemplated by a Bill which has been laid before the Jersey States. By the system now in force, although the jury are sworn to render a true verdict, the witnesses, on whose evidence the verdict must depend, are not sworn at all; they do not sign their depositions, nor do the jury attest, by their signatures, the verdict, but they are required to attend at the next sitting of the Royal Court, and declare that each of them agrees and confirms the verdict. The Bill now before the States proposes to alter the existing system, by making the cost of all inquests a charge on the public funds, instead of upon the estate or relatives of the deceased, except in the case of men in the Army or Navy, or pensioners. The evidence of witnesses is to be taken on oath, and the abolition of the practice of calling the jurymen before the court to confirm their verdict is provided for.

Hippophagy.—The official return shows the number of horses, asses, and mules slaughtered in Paris for consumption as an article of food in 1878 was 11,319, or 700 more than in the previous year. A prize of 1200 fr. has been awarded to M. Decroix, the founder of the first shop for the sale of horseflesh in London, opened in May last. That venture, however, during the four months of its existence, did not meet with success, and the Committee now offer a medal of honour to any English butcher who shall take up the trade and continue it for at least three months.

Absinthe.—According to the deposition of Dr. Blanck, absinthe produces 60 per cent. of the cases of insanity in France. Dr. Magnan states that absinthe is produced by the distillation of alcohol with wormwood (*Absinthius vulgaris*), either pure or mixed with other herbs. Several are used for the purpose of varying the flavour—for instance, the anise (*Anisum*), the angelica (*Angelica archangelica*), etc. M. Magnan, in a series of experiments on animals, has found that the poisonous properties of absinthe are much greater than of any other liqueur—even alcohol. The leading members of the medical profession in France are strongly opposed to teetotalism. They not only prescribe alcohol in various cases, but recommend the use of such stimulants to their patients in moderation; but they unanimously condemn absinthe.

A Naval Pension.—The Greenwich Hospital Pension of £50 per annum, void by the death of Fleet-Surgeon Michael Thomson, has been awarded to Staff-Surgeon James K. Ballard.

Douglas.—Sir Garnet Wolseley, according to *Cyprus*, has confirmed the appointment of Dr. Heidenstone to the post of "Town Magistrate for the Borough of Larnaca, and Sanitary Officer for the Town," at a salary of £300 a year.

Mortality Statistics: their Imperfections.—In a report recently issued by the Inspector under the Alkali Acts some noteworthy observations are made on the point "that the healthiness of a district is not always to be assumed by statistics showing its rate of mortality." Remarking on the injurious effects produced by gases, he points out that the method of estimating health by the numbers that die is very imperfect. Could their mode of life and their enjoyment of it be ascertained, the health of a district would be better known. "One of the most remarkable men living" lately told the inspector that he had had pain every (conscious) hour of his life since he was twenty-four years old, and he is now upwards of eighty. Discomfort and disorder, or at least painful irritation, of organs may exist, therefore, to a certain extent through a long and brilliant life; indeed, we do not know how far, at times, they may stimulate vitality. But a life must be measured for most men by the extent of comfort in it; there is only a minority who look to the good done as the criterion of value. It seems, therefore, that tables of health are imperfect if they do not show how much bodily comfort and vigour are enjoyed. It is not a healthy place which makes a man uncomfortable daily, even if it does not shorten his life; and this condition, so far as is known, is caused by some noxious works. Of course it is impossible to say how long the disturbed life would have been if it had been spent in comfort. Comfort makes a long average life, but does not produce many of the long lives much beyond the average; these seem to exist among the poor and struggling, although not the degraded. Tables of death might show to what age people arrive without such disturbance of the proportion as is caused by infant mortality. Even cases of sickness do not show the state of health well; men who live long and in much discomfort are not given up to groaning, and would be reported as never unwell. What is wanted is a mode of indicating physically or chemically a disturbance of our physical comfort, and till we understand the application of the rule, the extent of evil caused by gases will not be ascertained.

Dwellings of the Poor, Berlin.—The Director of the Statistical Department of the Municipality of Berlin, in a recent report, shows that the dwellings of the poor in that city are in a worse condition than they were fourteen years ago. In 1861 the numbers of dwellings up one pair of stairs was 262 per 1000, it is now 207; while the underground dwellings have increased from 92 to 102 per 1000, and those without kitchens from 69 to 281 per 1000. Nearly 120,000 people live underground, and 90,000 of them are lodged at such a depth below the surface that the atmosphere is dangerous to life. Of the 940,571 inhabitants of Berlin, about 10,000 live in dwellings where a fire cannot be lighted, and 426,000 in others where one room only can be warmed.

The German Hospital, London.—The annual report of this institution shows that during the past year, notwithstanding that the claims upon it had been unusually heavy, the Committee had been able to relieve more in-patients than ever before—viz., 1511, being about 100 in excess of the previous year; 364 cases were accidents, most of the sufferers being English. The total number of out-patients relieved was 17,680. Total number of in- and out-patients, 19,191. Of the out-patients about 10,000 were English. The Committee continue to hold three beds at their constant disposal at the Convalescent Home, Eastbourne, which had proved a great boon to many of the out-patients.

County Courts and Nuisances.—In some lengthy observations, the *Law Times* refers to the case of a nuisance—Martin *v.* Bannister—lately decided, which, it says, is "of great importance to county courts generally." The cause of the nuisance was an artificial manure manufactory, and the object of the proceedings in the County Court at Coventry was to obtain damages for the injury, and moreover, and chiefly, to procure a perpetual injunction restraining the owner of the manufactory from continuing the nuisance. A jury awarded £5 damages, and subsequently the County Court judge granted the injunction. But the defendant refused to obey it, and the judge declined to enforce the order he had made by committing the defendant to prison. The plaintiff thereupon applied for and obtained a rule from the Exchequer Division, which overrides the decision of the County Court judge. The *Law Times* thinks that an extension of jurisdiction is thus given to the inferior courts which, it believes, is entirely new, and has, in fact, not before been claimed for them under the Judicature Acts, and, at the same time, expresses doubts whether the power either of granting a perpetual injunction, or of enforcing the same by a committal to prison, ought to be given to these courts. The case is of importance not only to these courts, but to a considerable portion of the public who are aggrieved by common nuisances.

Sanitary Improvements in the Metropolis.—With regard to the Whitechapel and Limehouse improvement scheme under the Artisans' Dwellings Act, the Secretary of State, in reply to the Metropolitan Board of Works' letter explaining the steps which had been taken to give it effect, writes that he will be glad to hear that tenders for the land have been received, and a sale effected. In connexion with the difficulties which have arisen between the Board and the St. Luke's Vestry on the St. Luke's improvement scheme under the same Act of Parliament, the Home Secretary has appointed Sir Henry Hunt to act as arbitrator. The Board has sanctioned the borrowing, by the Hampstead Vestry, of £3400 for sewerage works.

Fatalities from Drowning.—The report on the number of lives lost by drowning in the inland waters of England during the year 1877, which was issued on the motion of Mr. Birley, M.P., shows that the total during the twelve months reached 2662. Rather more than half of these deaths are set down to rivers and running waters, the other half being equally divided between canals and lakes or ponds. This great mortality is deplorable, as it is almost wholly preventable. Certain casualties by water from accidents and other disasters will always occur, but a knowledge of the art of swimming should be enforced as a part of the physical education of the people.

The Royal Maternity Charity, Finsbury-square.—From the lately issued annual report it appears that this institution had not only maintained its old position and reputation, but it had also made considerable progress during the past year. Great satisfaction is expressed at the low mortality among the patients. "In the whole of London last year the deaths of women from puerperal cases were in the proportion of four per 1000 children born alive, or nearly double the rate of mortality among the cases attended by this Charity, in which the deaths of women from puerperal causes were only in the proportion of two per 1000 women delivered, and after correction for twin and stillborn cases, in the proportion of 2·1 per 1000 children born alive." During the year eminent foreign physicians had visited the Charity, who, desiring a model for their guidance in establishing similar institutions in their own countries, had warmly approved of all the forms and practice here adopted.

COMMUNICATIONS have been received from—

Mr. W. E. Poole, London; Mr. John Chatto, London; Dr. Leared, London; Mr. T. M. Stone, London; Mr. D. Colquhoun, London; Mr. B. R. Wheatley, London; Mr. Jonathan Hutchinson, London; Mr. R. J. Godlee, London; Mr. R. W. Parker, London; Dr. Buzzard, London; Mr. Tervan, London; Dr. H. De Fourmartin, London; Dr. J. Pearson Irvine, London; Dr. J. Hughlings-Jackson, London; Mr. Wm. Hay, Hull; The Registrar of Apothecaries' Hall, London; Mr. A. J. Hubbard, London; Dr. Hilton Fagge, London; The Registrar of the Royal College of Physicians, London; Mr. Edward Ward, London; Mr. A. A. Reade, Manchester; Sir Joseph Fayrer, London; Dr. Edward I. Sparks, Mentone; Dr. S. K. Coltrs, Stony Stratford; Mr. Shirley S. Murphy, London; Prof. F. De Chaumont, Netley; Dr. Thomas Barlow, London; Dr. Taylor, London; Dr. Dale, London; Mr. Henry L. Wallenstein, London; Mr. W. E. Porter, Lindfield; The Secretary of the Society of Arts; The Secretary of the Royal Institution; Dr. J. W. Moore, Dublin; Mr. J. Cundall, Surbiton-hill; Dr. Wallace, Liverpool; The Registrar-General, Edinburgh; Mr. A. Ross, Stow-on-the-Wold; Dr. J. A. Macdonald, Woburn; Dr. Broadbent, London; Dr. C. M. Tidy, London.

BOOKS AND PAMPHLETS RECEIVED—

G. N. Hooper, A Survey of the Carriages at the Paris Universal Exhibition, 1878—Francis Vacher, On an Abdominal Shield for Improving the Obstetric Binder—D. Hack Tuke, M.D., F.R.C.P., Metallooscopy and Expectant Attention—Rickman J. Godlee, M.S., F.R.C.S., An Atlas of Human Anatomy, part viii.—E. W. Berridge, M.D., Homœopathy Vindicated: a Reply to Dr. Joseph Kidd's Laws of Therapeutics—Dr. A. Eulenburg and Dr. P. Guttman, Physiology and Pathology of the Sympathetic System of Nerves, translated by A. Napier, M.D.—S. E. Ashton, Commercial Depression, its Causes and Remedy: a Plea for Reciprocity.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—El Siglo Médico—Révue Médicale Française et Etrangère—Contemporary Review—Leisure Hour—Sunday at Home—National Anti-compulsory-Vaccination Reporter—Transactions of the Odontological Society of Great Britain—Glasgow Medical Journal—Veterinarian—Edinburgh Medical Journal—Obstetrical Journal of Great Britain and Ireland—Analyst—Students' Journal and Hospital Gazette—Toronto Sanitary Journal—Archives Générales de Médecine—Monthly Homœopathic Review—Guy's Hospital Gazette—Monthly Journal of Science—Brain—American Journal of the Medical Sciences.

APPOINTMENTS FOR THE WEEK.

February 8. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.: London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Mr. Reginald W. Macan, "On Lessing."

10. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. J. Matthews Duncan, "On Antiseptic Midwifery."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

11. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Schäfer, "On Animal Development."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Jonathan Hutchinson—1. "On a Group of Cases of Partial Symmetrical Immobility of the Eyes, with Ptosis (Ophthalmoplegia externa)"; 2. "Case of True Leprosy in which Complete Recovery has taken place."

12. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Annual Meeting for Election of Officers and Council.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Sound."

14. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. Ord, "Rheumatoid Arthritis regarded from a Clinical Point of View." Dr. Skerritt (of Bristol), "Complete Obstruction of Intestine by Fibrinous Exudation." Mr. Marsh, "A Case of Intestinal Obstruction in which the Abdominal Cavity was explored, a Stricture found, and the Gut successfully opened." Mr. Bryant, "A Case of Acute Intestinal Obstruction—Laparotomy—Removal of Large Impacted Gall-Stone from the Ileum—Death from Peritonitis." Mr. Lawson, "A Case of successful Tracheotomy in the Last Stage of Diphtheria." Dr. Douglas Powell will exhibit a Case of Leprosy with Enlarged Glands.

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Meeting.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 3 p.m. Prof. Humphry will deliver the Hunterian Oration.

ROYAL INSTITUTION (Weekly Meeting, 8 p.m.), 9 p.m. Prof. G. Johnstone Stoney, "On the Story of the November Meteors."

VITAL STATISTICS OF LONDON.

Week ending Saturday, Feb. 1, 1879.

BIRTHS.

Births of Boys, 1300; Girls, 1351; Total, 2651.
Average of 10 corresponding years 1869-78, 2460·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	917	904	1821
Average of the ten years 1869-78	794·8	791·8	1586·6
Average corrected to increased population ...	...	...	1698
Deaths of people aged 80 and upwards ...	...	...	92

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	5	4	2	1	12	...	1	...	2
North ...	751729	...	2	6	3	15	...	3	1	4
Central ...	334369	...	1	4	2	5	...	...	...	...
East	639111	1	2	6	2	17	1	2	...	3
South	967692	22	14	15	6	15	2	7	...	7
Total	3254260	28	23	33	14	64	3	13	1	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·082 in.
Mean temperature	31·6°
Highest point of thermometer	34·4°
Lowest point of thermometer	27·3°
Mean dew-point temperature	26·6°
General direction of wind	E.N.E. & N.E.
Whole amount of rain in the week	0·05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 1, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Feb. 1.	Deaths Registered during the week ending Feb. 1.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2651	1821	34·4	27·3	31·6	−0·22	0·05	0·13
Brighton	105608	44·9	72	43	36·0	27·6	32·1	0·06	0·13	0·33
Portsmouth ...	131821	29·4	95	47	...	...	...	...	...	...
Norwich	85222	11·4	68	37	36·0	28·0	32·0	0·00	0·00	0·00
Plymouth	74293	53·3	48	24	39·5	29·5	34·0	1·11	0·34	0·86
Bristol	209947	47·2	146	82	...	...	...	...	...	...
Wolverhampton ...	75100	22·1	64	32	35·3	26·0	29·9	−1·17	0·20	0·51
Birmingham ...	388884	46·3	340	204	...	...	...	...	...	...
Leicester	125622	39·3	84	46	35·2	28·0	31·6	−0·22	0·07	0·18
Nottingham ...	169896	17·0	117	95	34·8	27·8	31·3	−0·39	0·02	0·05
Liverpool	538338	103·3	427	368	36·0	27·0	30·8	−0·67	0·20	0·51
Manchester ...	361819	84·3	291	242	...	...	...	...	...	...
Salford	177849	34·4	143	97	...	...	...	...	...	...
Oldham	111318	23·9	80	57	...	...	...	...	...	...
Bradford	191046	26·5	134	73	33·4	22·0	28·9	−1·73	0·02	0·05
Leeds	311860	14·5	226	148	36·0	25·0	31·7	−0·17	0·02	0·05
Sheffield	297138	15·1	202	145	34·5	27·7	30·9	−0·62	0·00	0·00
Hull	146347	40·3	119	84	36·0	29·0	32·6	0·34	0·15	0·38
Sunderland ...	114575	41·4	70	52	37·0	21·0	31·2	−0·45	0·12	0·30
Newcastle-on-Tyne	146948	27·4	102	81	...	...	...	...	...	...
Edinburgh	226075	53·9	130	107	41·5	19·0	30·9	−0·62	0·00	0·00
Glasgow	578158	95·8	392	326	40·0	25·0	32·6	0·34	...	...
Dublin	314666	31·3	162	296	43·5	16·0	32·7	0·39	0·55	1·40
Total of 23 Townsin United Kingdom	8502896	38·6	3168	4507	43·5	16·0	31·5	−0·28	0·12	0·30

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·08 in. The highest reading was 30·26 in. on Monday evening, and the lowest 29·76 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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Improved Fine Trocar and four silver Canulas of different lengths for Paracentesis Abdominis, with Tubing complete, in case 25/-
Ditto, with two Trocars and eight silver Canulas, various lengths and sizes, with Tubing complete, in superior morocco case 40/-

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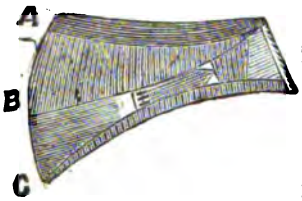
Salmon's Abdominal Belt,

in Silk Elastic, and Thread do., from 17s. to 50s.



The Belt is light in texture and affords a more lifting support than any hitherto made, completely supporting the lower part of the Abdomen. It is recommended in cases of Obesity, Tumour, Prolapsus Uteri, and during and after Pregnancy.

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87, Wimpole-st., Cavendish-sq., London, W. (Corner of Wigmore-st.)

Salmon's Obstetric Binder,

for immediate use after delivery, 6s. 6d.; by post, 6s. 10d.

The Binder is a substitute for the towel generally used immediately after labour. It is made of strong linen, and dispenses with the usual pinning. The advantages of the Binder are facility of application, combined with comfort and greater efficiency.

Measurement required, ordinary size of the waist.

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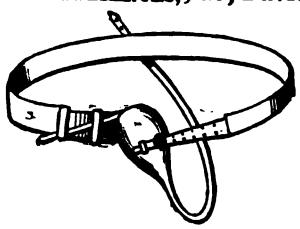
Spiral Elastic Abdominal Supporter.

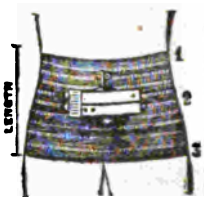
Price from £1 11s. 6d. to £3 13s. 6d.

Improved Truss with Air Pad, free from Steel.



Price £1 11s. 6d. Single. " £2 2s. Double.

Spiral Elastic Belt and Air Pad for Umbilical Hernia.



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ORIGINAL LECTURES.

IX.

CLINICAL LECTURE
ON VARIOUS FORMS OF PARAMETRITIS.

BEING THE NINTH OF A COURSE OF LECTURES DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery to the Hospital.

PARAMETRITIS, or inflammation of the cellular tissue around or in connexion with the womb, is one of the most important subjects in gynæcology. I can only, to-day in accordance with the cases that I have to consider, go over a very small part of this great subject. Parametritis may begin and end during pregnancy, and give rise to great difficulties in diagnosis when it is pelvic. Of this I have seen an example. But in pregnancy it is very rare. It is characteristically a disease of the puerperal and of the unimpregnated states. There is a kind of parametritis which I do not consider at all, and which is observed in cases of septicæmia or pyæmia, or what are ordinarily called cases of puerperal fever. This parametritis is erysipelatous in its nature; it is diffuse and it is not in its general characters like ordinary inflammation. There are pathologists of eminence who regard all kinds of parametritis as essentially the same, differing only in degree. In the meantime, at least, I do not hold that view. The kinds of parametritis are phlegmon, abscess, gangrene; and these again may occur in different forms. You may have a chronic parametritis, such as a chronic phlegmon, ending in the production of indurations which, when cut into, present a hard, dense, fibrous structure, the interstices of the fibrous tissue being filled up with fat. These chronic, hard masses are most frequently observed at one or both sides of the uterus. They sometimes atrophy, like fibrous tissue the product of inflammation in other situations, and may produce hydronephrosis by compression of the one or other ureter.

Now, parametric phlegmon is a common disease. Like all forms of parametritis, it is most frequent in the close neighbourhood of the uterus, and especially on either side of the cervix where there is plenty of cellular tissue to be the subject of the disease. But a parametric phlegmon, as I shall presently explain to you, may be remote, or any form of parametritis may be remote; and my lecture to-day is chiefly devoted to remote parametric abscess. Before I finally leave the subject of parametric phlegmon I must still further explain to you what it is. It is that kind of tender swelling and hardening of cellular tissue around the womb, or in connexion somehow or other with the womb, similar to what you see elsewhere around an inflamed gland or around a carbuncle; and which, when the inflammation ceases, or when the carbuncle disappears, melts away, often without suppurating. That is called, in the case of the uterus, a parametric phlegmon: it is common. An ovariotomist occasionally, but very rarely, sees this. In the post-mortem theatre it is extremely rare distinctly to see it, for it is not a fatal disease. An eminent ovariotomist, describing parametritis, not in the pelvis, not forming a pelvic tumour to be felt by the finger passed into the vagina, but describing a parametric phlegmon around the brim of the pelvis, uses these words:—"Looked at from above, the swelling of the pelvic soft parts was such that three fingers only could be pushed into the cavity, instead of the whole hand with a big sponge in it as is usual." Here was parametric inflammation in a woman who was subjected to ovariotomy, and who had never had an abscess; but all this great parametric phlegmonous swelling disappeared, just as the great hard swelling around a carbuncle disappears, without any suppuration.

Now, parametric abscess, which is the chief subject of my lecture to-day, may be a degenerated or an advanced phlegmon, or the case may be one which has run on to suppuration at once; and I shall give you examples of these in different histories. But I have said that it was chiefly remote parametric abscess that I was to lecture on to-day. Now, this leads me to consider the subject of the extension of parametric inflammation—a most important subject in practice. After delivery, for example, a woman's uterus gets inflamed, or after a surgical operation upon the uterus, the organ gets inflamed; all the cellular tissue around it, especially on each side of it, may become swollen, hard, and tender. The inflammation extends, and the directions of its extension are very important for you to know. The most frequent is along the pelvic brim towards the psoas muscle, and further on towards the kidney or even around the kidney.

Pelvic abscess, as distinguished from pelvic phlegmon, extends frequently downwards into the thigh, and the abscess finds its way among the great muscles of the limb, sometimes even far down. An abscess may spread into the iliac fossa. There is no direction in which it may not spread; but I believe that the phlegmon, as distinguished from abscess, rarely if ever spreads, except, as I told you, upwards along the psoas to the kidney, or forwards, which I did not tell you, along the round ligament to the inguinal canal. Now, these spreadings may be either mechanical, or what we may call, meantime, vital. The mechanical form of spreading some ingenious pathologists have very wisely tried to explain by experiment, injecting fluids into the parametric cellular tissue, and seeing how the fluid goes, to find out if that accounts for the spreading of abscess or of phlegmon. These experiments have not come to much, and I shall satisfy myself to-day by giving you examples of the two kinds of spreading—examples which, I think, prove that there are two kinds. The spreading of inflammation so as to affect the inguinal canal, and the disappearance of inflammation everywhere else except in the inguinal canal, is a spreading of inflammation which I in the meantime call vital, not mechanical. No experiment has ever illustrated the running of fluids along the course of the round ligament. Besides, phlegmon, without abscess, may advance into the cellular tissue in the groin, and that while elsewhere, except in the inguinal canal, the inflammation is resolved. I take, as an illustration of the mechanical form of spreading, the advance of matter down into the thigh. That appears to me to be purely mechanical; and one reason for thinking so is that I have never observed the spreading of the phlegmon or mere inflammation in this direction. I have only observed the mechanical forcing of an abscess down into the thigh. That is purely mechanical. The matter, not finding vent otherwise, in some cases is urged into the hip or down into the thigh, and sometimes passes round the head of the femur and gets into the hip-joint, and so produces very dangerous conditions.

I must pass now from the consideration of these two forms of spreading—of inflammation and of abscess—the mechanical form and the vital form; and I will give you an illustration, that occurred in Martha not long ago, of inguinal parametritis.

S. S., aged twenty-five, has had three children, the last born four weeks and four days before her admission into the hospital. She got on well till a week after her confinement, when she had a prolonged rigor. Shortly after this a lump began to appear in her right groin. At first it gave her little trouble, and a fortnight after her confinement she left the house. Two or three days after this exposure the lump in the groin began to increase and be very painful. On admission there is found, extending from near the right anterior superior spine to the body of the left pubic bone, a prominent pear-shaped mass, the smaller end being near the iliac spine. It feels as if filled with fluid. At its broadest it is two inches and a half, measuring upwards from Poupart's ligament. The uterus, and all that can be felt per vaginam, is soft, mobile, and healthy. Only in the right anterior quarter of the pelvic brim, pressing high up, the finger meets fulness, produced by the above-described swelling as it overhangs the horizontal ramus of the right pubic bone. The abscess was opened with antiseptic precautions and dressed. The finger, introduced into the cavity of the abscess, found it to be limited to the region of the external swelling. The discharge soon dried up, and she rapidly recovered.

This case of inguinal parametritis is an example of spreading to the inguinal canal indisputably vital. When she was examined, on admission to the hospital, there was no trace of any disease about her womb. The disease began, as you observe, a week after delivery, and remained for a considerable time evidently in the state of a phlegmon; and then she went out. The effect of the exposure was to increase the inflammation and produce suppuration. It was an inguinal parametric abscess, dependent originally upon uterine inflammation, which, when we saw her, had entirely disappeared —a remote form of parametritis.

Now, I have told you that remote parametritis may affect the region of the psoas muscle, or may affect the suet. The case which I am to read to you is an illustration of remote parametric abscess which maintained to the last some connexion with the uterus. It is an example of a kind of disease that is sometimes very puzzling, as I shall presently explain to you. The abscess did not mature and burst till about seven months after the woman's confinement, so chronic was it.

Mrs. R. S., aged twenty-seven, has been married for seven years, and had four children, no miscarriages. Her last confinement was six months before admission to Martha. It went off easily; but three days afterwards she had shiverings, and has not been well ever since. Now she is exhausted and emaciated, has a quick pulse and a high temperature, both of which rise in the evening and are accompanied by ordinary hectic symptoms. Catamenia have not returned since confinement; lies on her right side to save pain. The right thigh retracted fully forty-five degrees. Micturition frequent and painful: urine acid, and contains a very little albumen; complains of great pain and tenderness in the right inguinal and hypogastric regions, and shooting down the right leg. These pains have been getting worse ever since her confinement. The lower part of the right side of the abdomen is occupied by a rounded tender hardness, dull on percussion, extending from the right side of the right pubic bone in the direction of Poupart's ligament, and upwards into the right flank, where its distinctness is lost. It enlarges as it approaches the crest of the ilium. The uterus is in its natural situation, but fixed. The right side of the pelvis, but only as high as the finger can reach, is occupied by a tender hardness. She was kept in bed, well fed and cared for, and constantly poulticed. Three weeks after admission, and about seven months after her confinement, relief came by discharge of pus through the already irritated bladder. The tender swelling immediately diminished. The pus flowed freely. The retraction of leg gradually yielded. A fortnight after the discharge of pus began she could keep her leg extended. In a few days more the lump in the right side could not be discovered. The discharge of pus ceased. Two months after admission, and between five and six weeks from the commencement of the evacuation of the abscess, she was discharged quite well.

Here is a case of psoas and iliac abscess, the inflammation beginning three days after delivery, and relief not coming till about seven months afterwards. In this case the abscess was not in the pelvis, the most common seat of the abscess; there was no intra-pelvic disease. The abscess was remote, but it maintained its connexion with the uterus—came down as far as the brim of the pelvis and to the uterus so as to hold it fixed.

Some of the most important symptoms I must now describe to you. She lay upon the affected side, and the case I am to read next to you lay in the same way upon the affected side, or inclined to the affected side. Her thigh was retracted, and in this woman it was retracted to about half a right angle, measuring from the position in standing or extension. The amount of retraction varies. Extension of the retracted thigh is almost impossible; it can be done, but it causes so much pain that unless under the influence of chloroform it would be cruelty to try to do it. It disappears soon after the abscess is discharged, and before it is completely healed. In my opinion, it is not the result of neuritis, because there is no special pain along the course of the nerves, because there is no pain when the leg is at rest, and because it comes and goes with the disease; whereas neuritis might, as in a case we have had in "Martha" lately, continue long after the original disease had gone. There are cases where you have evidence of neuritis, but in the meantime it is my opinion that most cases depend upon irritation or inflammation of muscle—the psoas and the iliacus. Another great symptom is the emaciation and haggard appearance, which in some of these cases cannot be exaggerated, leading bystanders to form an unfavourable prognosis, in which you would also join if you did not know what this case, and others that you have seen, illustrates, that this haggard, emaciated, death-like condition disappears with extraordinary rapidity when the abscess bursts and when the case begins to improve. Now, in many cases of this kind mistakes are made, and the mistakes arise from neglecting the remoteness of the inflammation, the inflammation sometimes being confined to the region of the psoas or the region of the kidney, while the region of the uterus, where the inflammation began, has become perfectly healthy—that is the remoteness of the disease. Mistake arises from the difficulty of understanding that the disease can be so chronic as it is in some cases, and as it was in the woman whose history I have just read, in which the abscess never pointed, and burst through the bladder seven months after confinement.

Another source of error is, that in some cases there is no great pain or tenderness in the region affected—the region of the psoas muscle; and frequently, as in the case I am presently to read to you, nothing to be felt. The inflammation produces a flat swelling, which is covered by the bowels, and you cannot feel anything internal through the bowels, so that the physician cannot find anything like a distinct abscess even if he happens to expect it. I remember well being called by two excellent physicians to see a case of this kind. It was many months after delivery that I saw the woman for the first time. The physicians had given up the idea that there was a psoas abscess or any abscess following delivery, for there was nothing to be felt. The woman was lying in bed, without much suffering, but quite helpless from the retraction of her thigh, and the question was one of diagnosis. The friends had become impatient in consequence of the promises made by the physicians all having proved false. When I saw her I had no doubt, although I could make nothing more out than the physicians did, that it was a case of the kind I have been describing to you, and I had nothing to say but to recommend further expectation; and the case ended as the case I have been reading to you. The abscess at last pointed, as it usually does, in the groin, and the woman was very soon cured by nature.

The last case I read to you was a case of remote parametritis, but the parametritis was continuous with the uterus and fixed it. The case I am now to read to you is a case of remote parametritis without continuity. It is not a case of the ordinary kind of pelvic abscess; it is not a case of the kind that I first illustrated, inguinal parametritis; it is one of remote psoas abscess.

M. A. F., aged thirty-three, single, had a seven-months child seven weeks before admission to Martha. Has never been well since. Catamenia appeared about five weeks after delivery. Bowels regular. Micturition natural. In evening, pulse 116; temperature 102·2°. Looks very ill, is worn and emaciated. Complains of pain in the right thigh shooting into the hip, and that she cannot walk. The right thigh is drawn up, being flexed about fifteen degrees. The upper half of the thigh is rounded and swollen to at least twice the size of the other. The swollen part is tender, but no special hardness can be found in it. The slightest touch beneath Poupart's ligament causes acute burning pain down the inside of the thigh. No defined hardness can be felt above Poupart's ligament, but there is great fulness there and extending upwards on the right side of the belly. The uterus is not fixed nor tender; neither is there any hardness or tenderness around it. The right labium majus is swollen and œdematous. She was put on a water-bed, ordered to be well fed, to have a morphia draught at bedtime, to have the lower abdomen constantly poulticed. Eight days after admission a pointing abscess was detected in the upper and anterior part of the right thigh. Next day it was opened with antiseptic precautions. About a pint and a half of fetid pus flowed. At the same time there was considerable hæmorrhage, apparently venous, and certainly not from the wound, which was made in thinned skin. The bleeding was arrested by pressure. Pressure in the region of the psoas and iliacus causing gushes of pus, made it plain where the abdominal part of the abscess was. Similar evidence showed that this part was in a few days completely evacuated and healed; but the large abscess in the thigh, whose extent was very ill defined, required careful strapping and bandaging to secure its evacuation and healing. Now, six weeks after the abscess was opened, and fourteen weeks since her confinement, there

is scarcely any discharge. The woman is rapidly regaining good looks and flesh.

Here is a case in which you have a large abscess forming in the right lumbar region, the region of the right psoas muscle, not a pelvic abscess. How the pus found its way down into the thigh we can only conjecture, as nothing abnormal was to be felt per vaginam. The pus probably advanced along the psoas muscle, and so got down into the region of the great internal muscles of the thigh. It did not penetrate the pelvis. This is an unusual route—a route into which it is forced, I believe, purely by mechanical circumstances; the pus burrowed because it found its easiest progress and accumulation by pressing downwards in this way. In this case there is also to be noticed the bleeding on opening the abscess. The bleeding made me regret that I did open it, because I think it probable we should have avoided this bleeding if we had let it alone; and in this case—I do not say in every case—I believe the opening would not have been delayed twenty-four hours. If the bleeding had been slight I would have thought nothing of it; but the bleeding was decidedly considerable, especially when you keep in mind the emaciated and exhausted condition of the woman. In this case I would remark to you what I have mentioned already, and what is described in the case—the evidence of an immense lumbar abscess; but no lumbar abscess could be felt on manipulating the abdomen. That, naturally, might lead to great mistakes were you not aware that it is not an uncommon condition, a large collection of matter present in this situation, but which cannot be made out by the examining practitioner's hand. You will remark in this case another peculiarity—that the pus was intensely fetid. This putrefaction of the pus is difficult to account for, for certainly there was no communication with the bowel, or with any viscus; and yet putrefaction occurred. This kind of occurrence forms a difficulty in connexion with Listerian antiseptics. How did the pus putrefy without any route for admission of germs? Now, the only explanation I can suggest is one that I have heard, namely, that while healthy tissues will not allow germs to permeate them, such morbid tissues as this woman had, separating bowel from the cavity of the abscess, did allow germs to pass. That is, however, a hypothetical explanation. No doubt the fetid pus in this abscess led to a great aggravation of the woman's symptoms. The putrid ichor was absorbed into the blood, probably in considerable quantity. This view is confirmed by an observation which Mr. Garstang pointed out to me—that on opening the fetid abscess (the fetor rapidly disappeared, lasting about a day and a half) improvement immediately followed, the temperature falling from 99·5° up to (in the evening) 102·5° down to natural, and that in a few hours; and only once rising (ten days after the evacuation) as high as 100·5°. And this rising was due to some intercurrent affection which we did not discover.

Before concluding, I must say a few words with regard to the treatment of these inflammations and abscesses. There is really very little to be said. The treatment of parametritis in all its forms is almost identical with the treatment of inflammation or an abscess in any other situation—antiphlogistics; poultices; occasionally, in the phlegmonous form, the use of blisters; and lastly, the use of the knife. It is only on the use of this last that I shall here make a few remarks. All gynæcologists agree in discouraging resort to the knife in these cases. I have often seen the knife used in the manner which, when we speak of tapping, is called dry tapping; the practitioner, not recognising the occurrence of parametric phlegmon where there is no abscess, and thinking he will hasten the progress of a case by driving his knife into it when there nothing to evacuate. But it is not the liability to mistakes of this kind that induces all gynæcologists to discourage opening parametric abscesses of all kinds; it is their clinical history, which shows that in the immense majority of cases they are better let alone. These remarks, however, chiefly apply to pelvic abscesses, and there the danger of opening is far greater than in remote parametric abscesses, such as I have been going over to-day. The observation does not apply so rigidly to remote parametric abscesses, for it is frequently advisable to proceed to evacuate such in order to hasten the progress of a case that might otherwise linger for a very long time. I advise you, however, to be sure that you have an abscess to deal with, and to be sure that it is what is called "thoroughly matured" before you interfere with it.

A CLINICAL LECTURE
ON SOME PECULIAR ERUPTIONS ALLIED TO CHILBLAINS.

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GENTLEMEN,—Two cases of a very peculiar eruption upon the hands have come under my observation this week, and one of them I shall have the pleasure of showing you directly. The subject of the first is a young man, apparently in fair health, who has been some little time under care at the Black-friars Hospital for psoriasis, and who is taking arsenic. On Tuesday last he showed us his hands, upon the fingers and knuckles of which an eruption of dull red spots had appeared. The spots were raised, from the size of pins' heads to that of peas, and rather ill defined. In some instances they occurred in confluent groups. They might have been taken for an early stage of psoriasis, or still more plausibly for a variety of erythema multiforme, but that some of them were distinctly vesicular, and that they preferred the sides of the fingers and the knuckles to the backs of the hands. It was his first attack, and had lasted only a few days. He had not been specially exposed to cold, and he had not had his hands irritated in any way. I should add that many of the spots were already declining, and that there was not the slightest tendency to develope into spreading eczema. I suggested that the eruption, which was quite symmetrical, might possibly be in connexion with that disturbance of the nervous system, and through it of the nutrition of the skin which arsenic is well known to produce. I remarked also that, considering our recent cold and east winds, we must keep in mind the possibility that the eruption might be a peculiar form of chilblain. Mr. Tay reminded me that we had some years ago two very similar cases under observation, and that I then expressed the opinion that they were allied to chilblains.

To-day I have been asked by the House-Physician to see a woman who is now in the hospital under Dr. Hughlings-Jackson's care for disseminated sclerosis. The reason for sending her to me is, that she has a very peculiar eruption on the hands. I find that she has been in the hospital some months; and that three months ago Dr. Jackson gave her arsenic. Whilst taking this she had herpes zoster on one side of the chest, as is not very unusual during arsenical treatment. The arsenic was now stopped, and it had been put aside for more than two months before the eruption came on the hands. Thus we can scarcely blame the arsenic in this case. I must add that the woman suffers from feeble circulation in the extremities; and that at night her hands and feet are very hot, and in the day very cold. She tells us that she was not liable to chilblains in early life, and that she has never had spots on her hands before.

The eruption which I now show you began to develope about a week ago. You will see that its characters fit pretty exactly with what I have just been describing in the case of the man at the Hospital for Skin Diseases. The spots are placed quite symmetrically on the fingers and knuckles, not occurring either on the palms or on the backs of the hands. They are very conspicuous, consisting of dusky red areas, most of them about the size of split-peas, and all attended by some thickening. Many look as if about to vesicate; and in the middle of some is a white area as if a little pus were present. There are no crusts, and on carefully pricking the white spots I obtained no fluid. The fingers are a little swollen, but not much; and there is nothing which looks like the ordinary form of chilblain. On the feet, however, the state of things is rather different—the spots are less well defined, and there is much more of dusky congestion and swelling; the great toe, in particular, is quite livid. Both hands and feet are very cold; and the capillary circulation, as shown by slowness of refilling after the vessels have been emptied by pressure, is very feeble. This patient has been throughout in the warm hospital ward; and her hands have not been exposed to any irritation nor to cold. We must bear in mind, however, that she feels as cold little changes of temperature which others would not notice.

Thus, from a comparison of these two cases, you will observe that the chief features of this eruption are—limitation to the digits of hands and feet; symmetry; production as small erythematous patches, which vesicate and rapidly dry up; tendency to spontaneous cure; occurrence in cold weather, and to persons of feeble circulation.

In connexion with these two cases, let me remind you of a third which I commented upon a week ago. Of this a healthy young man was the subject. Although I call him healthy, you will remember that the circulation in his hands was very feeble, and that when we made the skin white by pressure it remained so a long time. He had not, however, so far as I recollect, suffered from chilblains. He came to us for an attack of symmetrical inflammation of his hands, chiefly of his fingers and knuckles. There were large red patches as big as shillings, or larger, presenting no thickening of tissue, but only a little diffuse œdema, the main character being erythema. The tint was that of middle or deep salmon, or that of the spots on a plaice. On the back of the hands were a few patches which exactly resembled the latter, and you know that the occurrence of such patches is not uncommon in the hands of those who have very feeble capillary circulation, when the hands are cold. Now, the peculiarity of this case was that the erythema patches had in many instances vesicated, and presented great irregular blisters, containing half-opaque fluid, and looking exactly like those produced by a scald. I questioned the man most closely as to whether he had not had his hands in water which was too hot or in some irritating solution, but he denied it; and we must notice that the erythema was not diffuse, as might have been expected from such a cause, but in definite patches. I think we may assume that the eruption was really allied to erythema multiforme—what we sometimes speak of as vesicating erythema,—and that the feeble circulation was probably a contributory cause bringing it again into alliance with the chilblain group. Probably the eruption is neurotic in this sense, that it has been evoked under the influence of the nervous system and not of the blood; and I quite expect that, like most other neurotic affections of the skin, it will be but of short duration, and will disappear spontaneously. Chilblains are, as regards cause, local and not neurotic, and they do not disappear easily, but show a tendency to become chronic. In this they differ most definitely from the short-lived forms of erythema multiforme, but it is still quite possible that the latter may assume peculiarities when they happen to those who are of chilblain-proclivity of tissue.

I have yet another case which I wish to mention in order to impress upon your minds the efficiency of the local application of cold in deranging the nutrition of the parts attacked. It is that of an elderly Irishman, whom I saw this morning at Moorfields, and who has promised to present himself for your inspection here at an early opportunity. He has lost his nose-end by an ulcerating frost-bite, and the parts about the scar are now constantly livid from venous congestion. His ears also are livid, and his hands of a dull blue tint. His hands, when I saw him, were quite cold, although he had been in the room more than an hour, and he complained of their numbness, and of the pain caused by any sudden movement of their joints. He said that they, as well as his feet, were always either too hot or too cold—generally the latter. He could not put them into unwarmed water, nor bear the least exposure to wind. Now, all this unusual susceptibility had been induced, he said, by a single exposure to very severe cold one night on sentry duty at St. John's, New Brunswick. His nose was then frozen, and its tip sloughed; and his toes were only just saved. Before that his circulation was not remarkably feeble; and ever since (for twenty years) it has been as at present. Let us ask ourselves what has probably happened to him; for it is rather as an illustration of pathological possibilities than from any other clinical importance that I brought the case before you. How are we to explain this long-persisting liability to venous congestion and loss of temperature on the slightest exposure to cold? We observe, first, that it happens to the parts which are at most disadvantage as regards maintenance of heat, and which freeze first if frost-bite happens—the hands, feet, nose, and ears. Now, it may have been that the effects of the frost-bite was to permanently paralyse the veins of the parts, to degrade the vitality of the cell-structures affected, so that they could never subsequently supply the *vis a fronte* of the circulation. Perhaps, also, the vaso-motor nerve-elements were damaged, and are now unable to prevent the arteries from passing into spasmodic closure on the slightest provocation. That there is more than mere arterial spasm is highly probable, for were it not so the hands would become white, not livid. Whatever the change may have been, we may assume that it is probably chiefly local, and not connected with the centres either of the circulation or of innervation. We must not, however, feel too confident on the latter point, for it is quite possible that the tone of the entire vaso-motor system may have been reduced, or some influence on the spinal cord and sensory nerves may have been excited, which has helped to the result.(a) Before the man had his frost-bite he had suffered from ague severely, and it is probable also that he has had syphilis.

The case of this man reminded me forcibly of that of a woman whom we had under care in this hospital some years ago, and whose nose and ears used to get blue whenever the windows were opened. Her ears and nose-tip had ulcerated from cold, although she had never been exposed to anything unusual.

A case closely resembling those which I have narrated in the beginning of the lecture was brought by Dr. Pye-Smith before the Hunterian Society in November last. I had the good fortune to see the patient. A girl of about sixteen, florid, and of rather delicate skin, had her fingers and adjacent parts of hands covered with red patches, upon which were vesications varying in size from a shot to a split-pea, or even having an area of a fourpenny-piece. The larger ones, however, were not tense, but collapsed. There were none which were not placed upon a patch of dusky erythema. Some showed cracks, and were tending towards eczema. The fingers were slightly swollen. The eruption differed from cheiropompholyx in that the vesications were very delicate and easily ruptured, and in that there was much congestion, and some œdema under and around them. There was further the history that the girl was liable to the eruption six months out of every year, those six months being the winter ones. This fact alone made the diagnosis of vesicating erythematous chilblains a confident one. The girl said that she had a few on the feet.

The next day we had before us in the lecture-theatre at this Hospital another case, which was more puzzling. The patient in this instance was a man of forty-five, and the eruption was the first that he had experienced. Both hands were covered with large dusky erythematous patches, some of them slightly cracking, but none with vesications. The fingers were chiefly affected, but patches occurred also on the sides and backs of the hands. The man had no skin disease elsewhere, and his feet were not affected. He reported that he did not remember to have suffered much from chilblains in winter. Now, as we had only got to the middle of November, and the weather was not very cold, and as our patient was a middle-aged man, I felt some hesitation in diagnosing chilblains. We spoke of erythema multiforme and of some other possibilities. I asked the man if he had any suggestion to make as to the cause of his malady. He replied that he thought it had been caused by his having for a few days worked for some hours at daybreak unloading a barge of barrels which were covered with ice. His hands had been very much chilled, and it was an occupation to which he was unaccustomed. This statement confirmed my suspicion, and enabled me with confidence, in spite of the unusual conditions, to assign the malady to the chilblain family. I believe that it is often to be observed in children who are liable to chilblains that the first frost of the year is more likely to produce them than even more severe cold encountered later or after a certain degree of seasoning has been attained.

At the Hospital for Skin Diseases, in November last, a very singular example of what we might perhaps regard as chronic or permanent chilblains came under notice. All the fingers were affected, and considerable changes in their nutrition had taken place. At first sight the aspect of things looked much like that of threatened senile gangrene. The thumb was the most livid, the forefinger next so, and so

(a) That constitutional conditions are very important as predisposing to frost-bite is well shown by the severity of the latter in the subjects of scurvy. That the nutritive tone of parts once frost-bitten is ever afterwards much reduced is illustrated by the well-known fact that it is never advisable to perform the slightest operation on them. Incisions are almost certain to set up fresh mischief, and to be followed, if not by gangrene, by an unhealthy wound. All frost-bite wounds must be left to heal without interference.

on, decreasing to the little finger. The following are the notes which I took at the time:—

Case of Feeble Circulation in the Fingers, with Changes in Nutrition affecting the Nails and Finger-Tips.

Mrs. D., aged forty-eight (looking older), a spare and feeble woman. She comes on account of dusky congestion and stiffening of all the fingers. The extreme ends are most affected and the pulps are wasted. They are cold and dusky, and the skin feels hard and rough. The fingers are affected with almost exact symmetry. The nail of each forefinger is small and curved, its outer edge being in part destroyed. It appears that on each of these fingers she had some sort of whitlow or ulcerating eczema at the root and side of nail.

There is no positive eczema, nor has there ever been much. On the tips of the elbows are rough patches, and also on her knees. The fingers ache much if she puts them into either hot or cold water, and often keep her awake by aching. Her feet are said to be not affected, and she has no eruption on the ears. She is a thin, delicate woman, and had been liable to chilblains in childhood. At the time that the affection began she was frequently engaged in the dairy, and with her hands in cold water. This is the only suggestion we can get as regards cause. Her pulse is rapid and weak, but she has not heart-murmurs. Some of the terminal phalanges appear to be almost anchylosed.

There is yet another very peculiar form of skin disease allied to chilblains, but differing very widely from the common type of that disease to which I must ask your attention. I have seen, I think, but three good examples of it, but probably minor forms are not very uncommon. In it the hands and lower part of the forearms become affected by a dusky pustular eruption, extremely chronic or almost permanent, and which leaves scars. It might be taken for an acneiform variety of lupus, but its preference for the hands and its association with cold sufficiently denote its real relationship. I have already attempted to show, in speaking of erythema-lupus, that there is a good reason for claiming for it a real alliance with chilblains; and it may be that in the case of the eruption to which I now allude there is not only resemblance to lupus, but a degree of true relationship. By this I mean that they are forms of inflammation of the skin which like states of nutrition and health predispose to, and which are evoked by exposure to the same kind of external influence—namely, cold. One of the best marked examples of this form of permanent pustular scar-leaving chilblains occurred to a servant-girl who had been brought up in a warm climate. During her first winter in England she began to suffer, and the eruption had been constantly out, with winter exacerbations, for four years when I saw her at the Hospital for Skin Diseases.

Eruption of Scar-leaving Pustules on Hands and Feet (allied to Chilblains?) apparently connected with the Change from a Hot to a Cold Climate.

Elizabeth S., aged twenty-six, single, in service, of blue eyes and brown hair. Her feet and legs, hands and forearms, are covered by an eruption of dusky pustules. On the fingers at many places the pustules become confluent in patches, and are attended by a good deal of almost livid swelling. The amount of pus secretion is very small, and there are scarcely any scales or crusts. Some of the spots are lichenoid rather than pustular. There are a few on the palms of the hands, and many abortive vesications between the fingers. Where they have got well, distinct white scars are left. The hands are more severely affected than the feet. She reports a few scattered spots on the body, and during the last month or two they have come out rather freely on the face, especially on the nose. She states that they change from red to blue, and that when red they itch and burn very much. They are always worse in winter, when, also, her hands swell very much. She was born in Australia, and there had good health, excepting that she was liable to bad colds in winter. It was a very warm climate, and she never had chilblains once. She left in 1868, at the end of the Australian summer, and passing the winter on the tropical sea, arrived in England in the beginning of summer. Thus she had practically three summers in succession. During her first English winter she had slight inflammation of lungs, and after this attack the spots came out. The next winter she had rheumatism. Since the eruption came out she has never got rid of it entirely; it gets much better in the summer, and then relapses in winter. Her bowels are much constipated. Her feet are often cold, and she is liable to headaches.

The case of Philip H., which was almost precisely similar to this, I have already recorded in the lecture on Lupus. I show you his portrait again. A case in which the eruption still more clearly approached lupus than either of these was under care in Sophia ward a few years ago. I frequently demonstrated the peculiarities of the case. The patient was a delicate young woman, and her hands and forearms showed many scattered but conspicuous scars. In her the tips of elbows were also attacked as in psoriasis.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

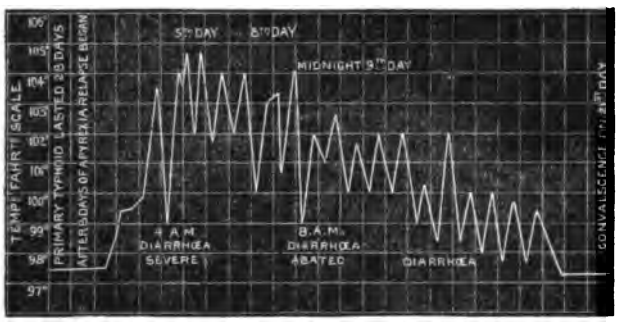
By J. PEARSON IRVINE, B.A., B.Sc., M.D. Lond.,
Assistant-Physician to Charing-cross Hospital.

(*Continued from page* 91.)

In most of the cases of relapse the thermometer was used as often as six times in the twenty-four hours; but the morning and evening heights (nine o'clock) have been so far only given. In some of the subjoined charts the fever of intermediate hours is noted, and will be described in the text. Reference to the charts themselves will readily show the variations which I have thought it worth while to notice. The first case which is reported below is an excellent illustration of the value of frequent use of the thermometer in typhoid relapse.

Case 7 (a female, aged twenty-eight), was admitted into Charing-cross Hospital in 1877, in the fourth week of an attack of typhoid fever of considerable severity, though diarrhœa was not a prominent symptom. There was, however, no constipation. The temperature of this patient was taken regularly every four hours, and any extraordinary variations are noted in the appended chart. The primary attack ended about the twenty-eighth day, and for eight days afterwards the temperature did not ascend beyond 97·5° Fahr. except on one occasion, when the height reached was not febrile. Relapse set in quite suddenly, and could not be explained. The temperature from 97·5° Fahr. ran up without intermission to 103·5° Fahr. on the third evening —six degrees in forty-eight hours. A sudden fall then occurred—to 99° Fahr. on the fourth morning (4 a.m.); but this was associated with a severe diarrhœa, and was an accidental remission, for on the fifth morning (at 4 a.m.) the temperature was 105° Fahr., at 9 a.m. 102° Fahr., and at midday 104° Fahr. At midnight (fifth and sixth days) it was 104·6° Fahr. The highest level reached (on the fifth morning at four o'clock) is, unfortunately, not recorded in the engraving. On the sixth and seventh days there was a somewhat similar temperature-curve to that of the fifth day, but there was a distinct tendency to fall, though only repeated use of the thermometer could have discovered it. On the seventh night the temperature went down four degrees, and reached 100° Fahr. on the eighth morning. It at once rose again, and in the evening was 103° Fahr.; but with the ninth morning came a remission like that of the previous day, yet at midnight of this ninth day the temperature was 104° Fahr., and the patient was dangerously ill. From midnight the thermometer was used carefully, and gave hopes of the patient's recovery, for at 8 a.m. of the tenth day it marked only 99° Fahr., a fall of five degrees having occurred during eight hours about the very time when we hoped for such a fall. Diarrhœa had abated, and other dangerous symptoms disappeared during the tenth day. There was a new exacerbation of fever, but the temperature did not reach previous levels, and day by day showed a tendency to gradual fall. On the sixteenth day there was an unexpected rise, which was followed by an attack of diarrhœa, but with this exception the temperature went down, and reached a subnormal level on the twenty-first day of the relapse. As I have said, diarrhœa was occasionally decided during this attack, and constipation was never met with. The patient was very seriously ill during the first few days, and when the temperature fell—with diarrhœa—on the fourth morning there were many general indications of danger. This diarrhœa interrupted the rise

of temperature, but did not check it. On the fifth day the thermometer marked the highest levels, and this case, like many others, says plainly that the thermometer is invaluable in prognosis, when its records are balanced by consideration of all available means of clinical examination. It was almost possible to divide the relapse in this case into three periods—(1) From the first to the fifth day; (2) from the fifth to the tenth day; and (3) from the tenth day to the twenty-first day, when the relapse ended. Temperature reached its height on the fifth day, and remained high to the ninth and tenth days, when a marked remission indicated the termination of the second period. The third period began with renewed elevation of temperature, followed by daily falls to the subnormal on the twenty-first day of the relapse.

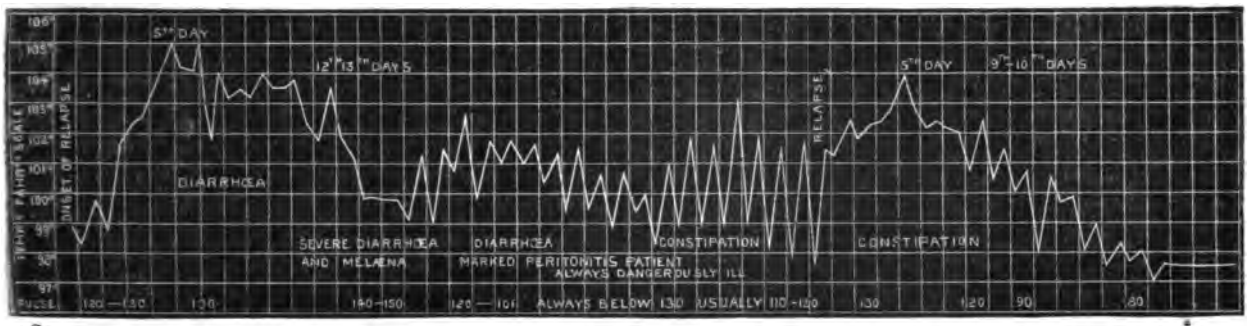


CASE 7: PRIMARY RELAPSE OF TYPHOID (a female, aged twenty-eight).—Primary disease lasted twenty-eight days. Relapse set in after eight days of subnormal temperatures. On first day of relapse, temperature was 97·5° Fahr.; at 4 a.m. on the fifth morning it was 105° Fahr. From midnight of the ninth day began a sudden fall—from 104° Fahr. to 99° Fahr. at 8 a.m. New accession of fever followed. Then there was a distinct daily fall to the end of the disease on the twenty-first day, when convalescence began with subnormal temperatures. (*Vide* text.)

Case 8 (a female, aged twenty-three), was a nurse in Charing-cross Hospital, and her case is especially interesting because it was watched from almost the very beginning of the typhoid attack, and throughout it she was under careful treatment and observation in a hospital ward. She occupied one of Dr. Pollock's beds, and, for a time, during my colleague's holiday, was under my care in the autumn of 1877. The case affords a most interesting study; the patient's illness, in spite of hospital care given from the beginning, was prolonged; her primary attack was complicated, and relapse of typhoid happened, though every known outside influence was assiduously and diligently guarded against. After a prolonged pyrexia the patient, however, recovered. She passed safely through many critical epochs met with in typhoid fever with relapse, and anyone who observed the severity of her disease could not but appreciate the value of exact observation as indicative of lines of treatment. Her primary attack was undoubtedly contracted by attendance on cases of typhoid, in contact with which her vocation daily brought her. This attack was very severe, but ended favourably—to all appearances—about the thirtieth day. During this primary typhoid she was watched by Dr. Pollock, and after many dangerous days it ended, and she began what seemed to be a decided convalescence, during which for two days her temperature was subnormal, and for the next three days not above normal. But on the fifth day of convalescence relapse began. The temperature ran up from this day almost continuously to 105° Fahr. on the fifth evening—that is to say, through nearly eight degrees. It fell on the seventh morning to below 102° Fahr.—which was regarded as of favourable omen, especially as there was no diarrhœa or hæmorrhage to explain this fall. But the fever increased afterwards and was never below 103° Fahr., and usually approached 104° Fahr. until the twelfth day, when a decided fall set in. Before this fall occurred the patient was dangerously ill; a protracted high temperature was accompanied by serious symptoms (delirium, semi-stupor, subsultus, and a rapid pulse). A decided fall was in fact delayed; and even when the fall came, diarrhœa and melæna continued, and were indicative of danger. The temperature went down from 103·4° Fahr. on the twelfth day to 99·2° Fahr. on the sixteenth day, and in itself was favourable; but both it and the general condition of the patient warned us that relapse had not terminated. The temperature did not, in what seemed an end of the relapse, reach the normal level, much less the subnormal, as occurs in most cases. This fact in itself was enough to call for caution on the part of the observer; but in this case many circumstances indicated mischief in spite of—or rather in proof of the value of—the fall in the temperature; for there occurred evidence of intestinal mischief, and during the fall of the temperature the patient was delirious, and her pulse was 150, feeble, and running in character. On the sixteenth morning of this relapse the temperature was only 99·2° Fahr., but it did not continue its descent. On the contrary, the fever again increased, and for several days fluctuated between 102° Fahr. and 103° Fahr. (The higher levels were but occasional, and are not recorded in the engraved chart.) From the sixteenth day the temperature rose to the eighteenth day (from 99·2° Fahr. to 102·6° Fahr.), and thenceforward descended to the twenty-fifth day, on the morning of which it was only 98·4° Fahr., and therefore subnormal. For seven days afterwards there was an accession of fever, which resembled in its characters that often met with in the fourth week of primary typhoid, and seemed to be ending in convalescence after thirty-two days of relapse; but observation of the case had made everyone cautious as regards prognosis. The first relapse had immediately followed a primary attack of dangerous severity, had been curiously complicated, and shown distinct evidences of peritonitis—not met with in the original attack,—and it was probable that this peritonitis prolonged the relapse. Diarrhœa was also in excess at times, butduring the last seven days of relapse the bowels were constipated. It is likely that the relapse was prolonged by complications such as peritonitis, and its irregular course due to these. The practical point is, that here, as in other cases, irregularity of the disease as indicated by the thermometer never failed to be followed by dangerous symptoms. The thermometer was, in fact, a constant source of warning. For example, tremor was most troublesome during the latter half of this relapse, and indicated deep and progressive ulceration of the intestines. It was during the third and fourth week that most anxiety was aroused, though the temperatures never reached the level of the first week. At the end of the thirty-second day of relapse the patient, as has been said, seemed to be beginning her convalescence, but straightway another relapse occurred. There was, properly speaking, no apyrexial interval, but the relapse was typical to a certain extent. The temperature ran up from 97·6° Fahr. on the thirty-second day of the complicated relapse to 104° Fahr. on the fifth of the second relapse, and this with but little intermission. The highest level was reached on this day, and thenceforward, though the temperature fluctuated considerably, it had a decided downward tendency, which culminated on the eighth day, from which the fall continued to the tenth day, when it reached 98° Fahr. The fever again increased (100·8° Fahr.) on the eleventh day, then fell rapidly, and on the sixteenth-seventeenth days the patient began a permanent convalescence.

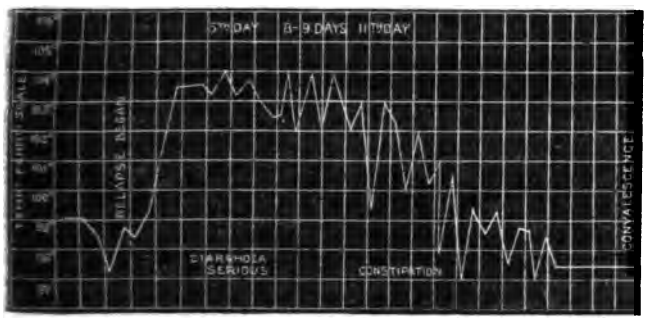
This exceedingly interesting case is valuable in many directions. Its chart differs greatly from those given; how much of this difference was due to complication, and how much to irregular relapses and recrudescences? The second relapse, as narrated above, and recorded in the chart, may have been an example of what is known as intercurrent relapse; that it was unquestionably a true relapse there can be no doubt. It is well worth while to compare the temperatures of this relapse with those of the first fortnight of the primary relapse: the remarkable similarity of the courses suggests a similarity of causes. I shall subsequently place on record some examples of undoubted concurrent relapse, and ask that the above case should be compared with them. (For chart of this case see top of next page.)

Case 9.—This patient, a male, aged seventeen, was admitted into Charing-cross Hospital in July, 1878, under Dr. Silver's care, and in his absence was in my charge. When admitted he was near the end of his primary attack, the history of which was obscure in many ways, but diarrhœa had been a prominent symptom—at least, occasionally. There was scarcely an appreciable interval between the ending of the primary disease and the onset of relapse. For a few hours only the temperature was subnormal, and it suddenly ran up from 97·2° Fahr., with little interruption, to 104° Fahr. on the fifth evening. On the third evening it was 103·5° Fahr. To the tenth day the fever continued high, being at midday on the eighth, ninth, and tenth days 104° Fahr. During this time, diarrhœa of typhoid kind and typhoid spots were



CASE 8: RELAPSES OF TYPHOID FEVER, WITH COMPLICATIONS (a female, aged twenty-three).—The primary attack lasted thirty days. After five days of apyrexia, relapse began, in which the temperature ran up from 98·4° Fahr. to 105° Fahr. on the fifth day. High temperatures continued to the twelfth day, and the patient was dangerously ill. On the sixteenth day the temperature was only 99·2° Fahr. It at once rose, and fever continued to the thirty-third day of this relapse. Then another relapse set in, which was typical in kind, but of short duration. On the sixteenth day of this elapse the temperature became subnormal, and afterwards the patient rapidly recovered without a bad symptom, though she had been more or less ferbrile or nearly ninety days. (*Vide* text.

decided, the patient being seriously ill. But a critical fall of the temperature began on the tenth afternoon, and early on the twelfth morning the level was only 99·4° Fahr. On the same evening (9 p.m.) it was again 103° Fahr., but henceforward there was a continuous daily fall, and though evening exacerbations were considerable on the sixteenth day, the temperature was only 97° Fahr. It rose the same day to 99·5° Fahr., and it was only on the twenty-first day that subnormal levels became permanent for some days, there having occurred no intestinal trouble after the eleventh day of the relapse. Recrudescences, which are not given in the chart, were met with in this case, in which, after intervals of apyrexia, the temperature rose on two occasions for two or three days. The somewhat irregular course of the true relapse had been suggestive of danger in spite of very decided symptoms, and during the boy's convalescence his diet was carefully watched. The fact that recrudescences occurred notwithstanding all care possibly proves that the irregularity in the relapse-temperature was due to the extent of the local intestinal lesions. Nothing, however, could be found to explain recrudescences, nor did they seem to interfere with the patient's convalescence. It is only fair to assume that dietetic treatment did much to obviate danger which the thermometer alone indicated.



CASE 9: PRIMARY RELAPSE OF TYPHOID, WITH RECRUDESCENCES (a male, aged seventeen).—In relapse, temperature rose almost uninterruptedly from subnormal to 104° Fahr. on the fifth day, and reached the same level to the tenth day. Diarrhœa during this period. Fall of nearly five degrees to twelfth morning, and abatement of dangerous symptoms. Relapse ended on the twenty-first day. During convalescence, recrudescences occurred, which are not given in the engraving. (*Vide* text.)

(*To be continued.*)

SYPHILITIC AND IODIC PURPURA.

WITH A

CASE OF FATAL PURPURA FOLLOWING THE ADMINISTRATION OF A SINGLE DOSE OF IODIDE OF POTASSIUM.(a)

By STEPHEN MACKENZIE, M.D.,

Assistant-Physician to, and Lecturer on Pathology at, the London Hospital.

THE following case appears to me of such interest, and to have so great an importance in practice, that I have ventured to bring it under the notice of the profession, in the hope that some of its members with larger experience than my own may throw light upon the subjects it opens up.

J. W. H., an infant aged five months, was brought to the London Hospital just before midnight on January 3, 1876, the parents making the following statement:—The infant had been ailing about six weeks. At first it suffered from fretfulness and uneasiness, accompanied by constipation, its motions being, the mother said, "as green as grass." The medical attendant under whose care the child was said it had "consumptive bowels," and prescribed cod-liver oil and a mixture. About one month before admission the nates became red and chafed, and, as the child instead of improving became worse, the mother took it to another doctor. He prescribed some medicine, which was dispensed by his assistant in the surgery. The medicine was to be given in teaspoonful doses every four hours. At 9 p.m. the first dose was given. About three-quarters of an hour later the mother noticed the child's face "turn black" about the mouth and chin. She thought something had got on to the face and took her apron to wipe it off. She could not remove it, however, and almost immediately "the eyes (orbits) and lips began to turn black." Becoming alarmed, she ran to the surgery of the doctor who had prescribed the medicine, and his assistant came to see the child, and afterwards gave some fresh medicine. The discolouration of the face rapidly increasing, the child was brought to the hospital, where it was seen on admission by Mr. G. E. Williamson. He noticed a large, hard, dark discolouration of the lower lip, with separate dark spots of purpura around it. There were a few hæmorrhagic spots on the left arm about the elbow; none elsewhere. *While it was watched, the patches perceptibly increased in size*, until in the course of an hour or so the scalp and face were well covered.

My colleague, Mr. Waren Tay, who happened to be in the hospital, witnessed the phenomenon. He furnished me with the following valuable note of the patient's condition at this time:—"When seen at 12.30 a.m. the child presented a most remarkable appearance. The whole of the face was swollen, and of a purplish-black hue, the eyelids closed and discoloured, the lower lip and chin tensely swollen and of a deeper colour even than the other parts, whilst the tongue and mucous membrane, visible through the open mouth, presented a marked contrast, being of a normally bright colour. On the checks the discolouration was produced by patches consisting of the aggregation of numerous small spots resembling those of purpura. The skin appeared injected with venous blood in spots and stains. On pressure the colour could not be altered in the least. The epidermis was not elevated or disturbed in any way. Some of the spots appeared to have lines radiating from them, but this was not very definite. The anterior nares seemed inflamed, swollen, and plugged with mucus. There were a few spots on each upper arm, more evident on the left side. No purpuric spots were detected elsewhere. Scattered over the abdomen and thighs there were about a dozen abortive pustules, not unlike ill-developed small-pox pustules." These last described spots suggested to Mr. Tay the possibility of iodide of potassium being the cause of the purpura.

The mother was sent home for the medicine the child had just taken, and she brought back an ounce and a half phial containing some reddish fluid, from which about one drachm

(a) Read before the Royal Medical and Chirurgical Society.

(not more) had been removed. This fluid was tested by the starch, lead, and mercury reactions, and found to contain potassium iodide. The quantity of iodide of potassium taken by the infant at one dose was two grains and a half; it is pretty certain that this quantity was not exceeded.

The mixture, of which the child had taken one teaspoonful, was made from the following prescription, kindly furnished me by the surgeon who prescribed it (this gentleman had correctly diagnosed the syphilis from which the child was suffering):—℞. potass. iodidi, ℥ss.; tr. cinchon. co., fℨj.; syrupi fℨiv.; sol. potass. chlor. ad fℨiss.(b)—Misce: a teaspoonful every four hours. The medicine that the child had been previously taking was also procured. It was analysed, and found to contain some preparation of iron, but was quite free from iodine. The infant was an emaciated little thing with a distended abdomen. The left lower central incisor tooth was through the gum. There were serpiginous ulcers around the anus and on the scrotum, and the latter was slightly œdematous. The testes were found to be greatly enlarged and to completely fill the scrotum. At the epigastrium, near the ensiform cartilage, there were two or three pustules of a greenish colour at the summit, while the bases were slightly redder than the surrounding skin. There were a few miliary vesicles with turbid contents on the sternum. The right clavicle was much thickened near the sternum.

On a more close examination of the child's family history and antecedents it was elicited that the father had had gonorrhœa thirteen years before, lasting three weeks, but he denied other venereal affection. The mother did not become pregnant until she had been married eight years. In her first confinement the child died during delivery owing to there being a cross-birth. Her second child was stillborn, having ceased to give signs of life three weeks before parturition. The patient was the third child born. She never miscarried. She had fallen away much in health and condition since her marriage. Had been losing her hair for a few months before coming under observation; had never suffered from an eruption nor had pains in her shins to her knowledge.

The patient was puny and cross from birth, and had thrush very badly when a few weeks old. In the course of the month preceding admission it had had some spots (about ten in number, the mother said) about different parts of the body). These spots varied in size—the smaller were not larger than a pin's head; the largest were about the size of a pea. They all came with white heads, and some of the neighbours thought they were chicken-pox (the patient was the only child in the house). About four or five of the spots became dark, burst, and discharged some blood, others matter. The mother was quite sure they all came with watery heads. One of the spots which she indicated as discharging pure blood was, when the patient came under observation, a minute abscess with a discoloured base.

The patient on admission was ordered the following mixture:—℞. Ext. ergotæ liq. ♏iij., mist. quiniæ fℨ j.—Misce: to be taken every three hours. It was also ordered a small dose of brandy occasionally.

On the morning following admission (January 4) its condition was as follows:—The face was puffed up; the eyelids so swollen that the lids could not be separated; the lips also were greatly swollen. The whole face was of a dark red (port wine) colour. It was darker on the nose, lips, and chin than elsewhere. The colouration was not of an uniform degree, for skin of a lighter colour appeared through the dark red discolouration. The appearance was clearly due to extravasation of blood into the skin; it could not be made to disappear by pressure. The extravasations now extended over the forehead and along the vertex. The ears and skin over temporal regions were not involved, nor was the under surface of the chin. The conjunctivæ could not be examined owing to the swollen condition of the eyelids; the edges of the latter were glued together by sticky exudation. The anterior nares were greatly discoloured, of a slaty-blue colour, bathed with a slight purulent discharge; the passage seemed clear. There was a small hæmorrhage in the centre of the hard palate, which was covered with a white curdy material, probably coagulated milk. Around the mouth the blood spread from beneath the skin to beneath the mucous membrane of the lips, especially the lower one, where it extended to the edge of the fold. There was slight eczema behind each ear, with a fissure between the left ear and scalp. In the skin over the deltoid muscles and upper arms, especially on the outer side, but also on the inner aspect, extravasations of blood were so numerous as to give the arms a mottled appearance. The small patches had in some instances their centres of a more vivid red colour, like a fresh flea-bite, the circumferential portions being of a dark purple colour, gradually shading off. Larger patches were seen to be composed of a coalescence of several smaller ones, and the skin over such patches was thickened and slightly elevated as though the hæmorrhage into the skin was considerable. Over the right forearm the spots were more scattered, and the hand was free, except that the flexures of the fingers were of a deeper red colour than the rest of the skin of the hand, suggesting that there might be some slight sanguineous exudation into the skin. The left arm and forearm were more uniformly affected, being everywhere mottled. The left hand was free from spots and discolouration. On the thighs and legs were hæmorrhagic spots similar to those described on the arms, only more sparsely distributed, and affecting the outer rather than the inner aspects of the limbs. Over the right trochanter the skin was of a greenish colour, as from a bruise. On the inner aspect of the right leg, in the loose subcutaneous tissue, were two rounded movable nodules, about the size of a split pea. The skin over these spots was a little discoloured, but there was no distinct hæmorrhagic extravasation. The mother stated that some of the earlier spots were of this nature, only the heads were whiter. The feet were free from spots. The child cried with a feeble, muffled voice. The surface of its body was warm. It was able to take the breast, and swallowed when it sucked. There were no abnormal physical signs in the chest, but the epigastrium and lower intercostal spaces receded during inspiration. Some urine had been passed in bed, and appeared of a natural colour. A greenish motion was passed in the morning. Temperature 98°; pulse 118.

January 4.—Evening: In much the same condition as in the morning. Had taken nourishment well. No fresh hæmorrhages had appeared. Some urine was drawn off with a catheter; it was tested with lead, mercury, and starch, but no iodine was detected. Temperature 98°; pulse 128; respirations 28.

5th.—Morning: Had been quiet during the night. The face and head presented much the same appearance as on the previous day, except that the hæmorrhages were not quite so dark in colour. The colour of the extravasations over the extremities had faded a good deal this morning; the hæmorrhages were of a dirty purple colour, and the skin was still thickened and elevated. There was now an abrasion of the nose. The eczema behind the ears had spread a little. The child took the breast well. It was said to have passed neither urine nor motion since the previous day. It was ordered one drachm of castor oil, and to continue the mixture. In the evening the discolouration was less, and the patches on the face approaching normal skin in appearance were more numerous and larger. The dark patches were of a purple hue. The lower lip remained almost black, but the upper had almost regained its natural colour. There were two patches on the left cheek similar to that described on the nose. They were about the size of large pin's heads, and consisted of black dry skin (necrosis), smooth on the surface, and depressed below the level of the surrounding skin.

6th.—Morning: The child appeared to be sinking. The pulse was 148; it breathed only nine times in the minute, and the expirations were much prolonged. The face remained greatly discoloured, and had now in parts a greenish black, almost gangrenous, appearance. No fresh spots had appeared; and the general colour of the extravasations on the face was fainter in parts where it had not assumed the greenish tint. The lips, especially the lower one, were covered with bloody sordes. The spots on the arms and legs had almost disappeared. The testicles were very large and hard, filling the scrotum. The patient died at 8 p.m., sixty-eight hours from the onset of the purpura.

The *necropsy* was made the following day at 3.30 p.m., by Mr. McCarthy and myself. Mr. McCarthy's report is as follows:—"Body wasted. Numerous spots over chest, abdomen, and legs, elevated, and of a grey colour, which, on section, proved to be small subcutaneous abscesses. Ulceration

(b) The "solutio potassæ chloratis" in the prescription contained half a drachm in one ounce, or about twenty-five grains in the mixture; as the patient had taken one-twelfth part of the mixture, there would be just over two grains of chlorate of potash in the dose.

of skin around anus. Purpura of face, with erosion of skin of nose and cheek. Left ventricle of heart not contracted, its walls very thick; right ventricle's wall also thick. Foramen ovale patent. Acute recent pleurisy at base of left lung. Numerous patches posteriorly of non-expanded lung; anteriorly, much emphysema. From the duodenum down to within about two feet of the cæcum were numerous ulcers, mostly with the long axis directed transversely, with sloughy grey bases, raised margin, and surrounding hæmorrhage. In some parts the centre had not yet sloughed. Kidneys pale, lobulated, but otherwise normal. Left supra-renal capsule very large, with tissue surrounding it infiltrated with new growth, and with numerous hæmorrhages, both into the interior of the capsule and surrounding tissue. Testes large, hard, and nodular. Considerable thickening of tissues covering testes. Sections of testes showed considerable quantity of new growth in body of testis, but still more in epididymis, with hæmorrhages. On the left side the change was most marked, and the tunica vaginalis filled with red gelatinous matter. The changes extended for about an inch up the cord. The iliac and inguinal glands on both cords were much enlarged, and of a red colour superficially. On section they appeared white and gelatinous."

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASES IN MR. LISTER'S WARDS, JAN. 20 AND 27.

Case 1.—*Excision of Elbow-Joint.*

PATIENT, a healthy-looking lad of twelve years, was admitted with a fracture of the humerus of old standing which had united in a bad position. Mr. Lister had partially excised the joint, shaping the lower end of the humerus in the hope that it would accommodate itself to the sigmoid cavity of the ulna, and so leave a useful limb. Four days after operation, the temperature had only once reached 100°, and the wound, when dressed, was clean and healthy. Seven days later, patient was able to pronate and supinate the forearm perfectly, and to bring the hand and wrist easily to the mouth. This he was unable to do before the operation. His general condition seemed excellent.

Case 2.—*Compound Comminuted Fracture of Radius and Ulna.*

A man presented himself in the theatre who had been an in-patient, suffering with compound comminuted fracture of the radius and ulna. The accident had occurred thirteen days before, and there was a large lacerated wound of the lower part of the forearm, with a fracture of the radius and ulna in the same situation. The wound had been washed out and treated antiseptically from the first. The dressing, which was four days old, on removal showed very slight discharge. There was a small superficial slough on the edge of the wound—which, however, was healthy, and closing up from the bottom. A new dressing, consisting of protective, antiseptic gauze, and macintosh, was put on by Mr. Lister, and the patient was sent away, to return in seven days to have his arm again dressed. Mr. Lister remarked that the wound had now reached that stage when the antiseptic dressing was a great saving of time. The patient was able to go out of the hospital, and required no special treatment. At the next dressing (January 27) the discharge was exceedingly slight, and the gauze over the wound sweet and clean. Some slight adhesions about the flexor tendons of the fingers were broken down, and the limb was then dressed, and patient discharged for another seven days.

Case 3.—*Stricture—Fistula in Perineo—Embolism of both Limbs.*

A man aged about fifty-two years, while a patient in the hospital with stricture and perineal fistula, suddenly developed symptoms of embolism affecting both lower limbs. There was loss of vitality in the anterior parts of both feet (worse in the left), and a gangrenous condition of the toes. Under these circumstances the feet and legs were enveloped in a thick layer of carbolised cotton-wool. This would lose its carbolic acid in about twenty-four hours, and then the cotton would act mechanically as a disinfectant by preventing the access of putrefactive germs to the dead tissue, which would then probably do no more harm to the adjacent living tissues than a piece of catgut would do in a healthy wound. The living parts would thus have a chance to recover themselves. The embolism occurred after a rigor. This, Mr. Lister remarked, might be an accidental coincidence, or the rigor might have caused the embolism. The condition of arterial contraction then existing might have had the effect of detaching coagulæ from atheromatous patches in the aorta or iliac vessels, and these being conveyed to the vessels of the lower limbs, would cause the present gangrene. A week later the limbs were still enveloped in cotton-wool. Patient had had an attack of hæmaturia, passing about thirty-four ounces of bloody urine, but otherwise there was little change. He was then able to move both feet, and had some sensation in the right toes. He felt considerable pain in the left foot on moving it. In the meantime there was nothing further to be done, Mr. Lister expressing his confidence that, with the precautions observed, no harm could befall the living tissues from their contact with the protected gangrenous portions.

Other Cases.

Among the other cases in the wards was one of lumbar abscess in a man of twenty-eight years of age. This had been opened antiseptically, and a large quantity of exceedingly fetid pus, full of bacteria, was evacuated. No injections were used, but ordinary antiseptic dressing was applied, and in two days the pus had ceased to be fetid and contained no bacteria. There might be room for theorising as to the origin of the bacteria in a closed abscess, but there could be no doubt as to the present results of the treatment adopted.

In the same ward there was a case of excision of the carpus for carious disease in a lad aged sixteen years. The operation had been performed five weeks ago, and was apparently successful. The hand and arm were still kept on a splint, but patient's condition was good, and the parts seemed healthy.

In the next bed was a man who had had suppuration in the knee-joint, as the sequel of an attack of acute rheumatism. Mr. Lister had freely incised the joint and evacuated the pus. The wound had almost healed, but the limb was still kept at rest, so that it was not possible to judge of the condition of the joint.

In the children's ward was a case of compound fracture of the leg, where the antiseptic treatment had failed to prevent suppuration. The limb had been severely crushed, and dirt had been ground into the tissues, so that it was not possible to remove all foreign matter from the surface of the wound. Mr. Lister said this was almost the only case of the kind he had met with since coming to King's College Hospital, but that it was in such cases that failure of the antiseptic method generally occurred.

In the same ward was a girl about four years of age, admitted with genu valgum. By mechanical means the limbs had been straightened, and were now put up with bandages impregnated with soluble glass, and fixed by means of the long double splint. When the bandage was perfectly dry, it was hoped it would afford the legs sufficient support to allow the child to walk about without return of the deformity.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

CASES OF EMPYEMA CURED BY ASPIRATION.

(Under the care of Dr. JOSEPH HUNT.)

Case 1.—Florence B., aged fourteen months, was brought to the out-patient room on November 26. Temperature 100·4° (rectum), dyspnœa, cough, night-sweats; no œdema, no rigors, no convulsions; much emaciated. Weight after aspiration, 15¼ lbs. Right side bulged, measuring 9 in. at level of nipple (left, 8½ in.); expansion deficient; vocal fremitus present but weak; dull throughout—the dulness extending slightly over middle line; breath-sounds weak; no displacement of organs; pulse uncountable, and scarcely to be felt. Aspirated, and four ounces and a half of sweet

pus removed; and afterwards chest firmly strapped from mid-sternum in front to spine behind.

November 29.—Good resonance in front to below nipple, and behind to middle of scapula, absolute dulness commencing at tenth interspace. Breath-sounds strong and healthy. Measurements—right side, 8¾ in.; left, 8½ in. Temperature subnormal. Ordered vin. ferri, ol. morrhuæ, ää 3ss. ter die, and some grey powder. After this, patient progressed very satisfactorily; she gained in weight, and the night-sweats stopped, notwithstanding that she remained as an out-patient at her mother's wish, being carried some distance in very cold weather two or three times a week. When discharged, December 22, the right side was slightly retracted, absolute dulness commencing in front at sixth rib, behind at tenth rib; but above this there was a considerable amount of modified resonance. A hypodermic needle, introduced on two occasions, failed to find any pus.

She was brought again, at request, a month after (on January 18), when she appeared in perfect health. The circumference of the sides was almost exactly equal, and both backs were resonant to the very bases.

Case 2.—Charles G., aged twenty-two years, came to the out-patient room on October 13, complaining of dyspnœa. His illness dated its commencement nearly two years back, and for some months at least, as was afterwards ascertained, he had had fluid in his pleura. With the exception that a maternal uncle died of phthisis, his family history was good. Patient was much emaciated. He had a slight cough and muco-purulent expectoration. There was no history of rigors, night-sweats, or hæmoptysis. He was immediately admitted. But for his emaciation he appeared at first sight in good health, could lie on either side, but with greater ease on his left. No œdema; no enlarged glands. A tendency to clubbing of fingers. The blood contained a normal proportion of red and white corpuscles. Evening temperature 99·5°, being higher in the left axilla than in the right. This excess of temperature in the left axilla continued, with very few exceptions, for some time, and varied from 0·2° to 0·6°. Weight ten days before admission, 9 st.; respirations, 28; pulse-respiration ratio, 4½ to 1; alæ nasi working. Left side excessively bulged, with obliteration of intercostal spaces; no expansion. Dull throughout, dulness extending at least one inch over the right margin of the sternum. Breath-sounds inaudible. Vocal fremitus and resonance wanting, except at the base behind, where some fremitus could be felt. The apex-beat of the heart was felt just inside and below the right nipple. Cardiac sounds normal. Urine acid, 1014, no albumen.

October 13.—Aspirated. After 103 ounces of fluid had been removed, the aspiration was stopped on account of dyspnœa, but long before the pleura was emptied. The fluid was very turbid, and of a dirty yellowish-brown colour, depositing, on standing, one-third pus cells in all stages of degeneration. After the aspiration, the sternum became resonant on percussion, and there was some resonance over the left front as low as the fourth rib. Behind there was but little change in the physical signs. The heart beat beneath the sternum. Left semi-circumference, 15¾ in.; right, 15½ in. Ordered a mixture of quinine, iron, and sulphuric acid. For the next few days the temperature varied between 98° and 99°.

20th.—There being no change, patient was again aspirated, and fifty-five ounces of pus removed. The aspiration again caused much dyspnœa and cyanosis, and was accompanied with much depression of the thoracic walls in the left mammary region. Heart returned to left side of sternum. Measurements—right side, 15½ in.; left side, 14¾ in. The following day patient's condition was very good. Behind there was good resonance as low as the angle of the scapula, and actual dulness did not commence till the tenth rib; the breath-sounds were very weak throughout. Vocal fremitus had returned, and was excessive over the left scapula. The heart's apex was felt in the normal position. Cardiac sounds normal, with the exception that the pulmonary second sound was markedly accentuated. The depression in the præcordial region was not nearly so marked as immediately after aspiration. Right semi-circumference, 15½ in.; left, 15¼ in.

24th.—Patient's weight is now 8 st. (a loss of 1 st. in three weeks). Last night there was a sudden rise of temperature—right axilla 103·4°, left 102·4°. This elevation continued, though not to such an extent, for two or three nights, and, contrary to what was the rule before, was higher in the right axilla. On careful examination, some moist râles were heard at the right apex, and before patient's discharge there was deficiency of resonance at this region, as well as a little weak blowing breathing, with increased vocal resonance. There was some slight purulent expectoration, but no hæmoptysis and no night-sweats.

November 16.—Condition improved. Weight, 8 st. 4½ lbs. Circumference—right side, 15½ in.; left side, 15¾ in. The remainder of the fluid was now removed by a third aspiration, and twenty-four ounces of pus were drawn off, the needle not being withdrawn till the fluid stopped running. There was no distress of any kind. Almost immediately following the tapping the chest gave good resonance on percussion throughout, except at extreme base of left axilla, and the breath-sounds were everywhere audible, but weak.

December 7.—Discharged. Weight, 8 st. 6 lbs. Temperature slightly raised at night, generally about 99·4°. No night-sweats. Slight bronchitic expectorations. The crepitations have disappeared from right apex, but resonance is deficient there, and vocal resonance increased. With the exception that the breath-sounds are weak, the physical signs of the left side of chest are normal. Circumference of two sides equal.

Remarks.—This case is of interest in more than one way. First, as regards the treatment adopted. After the first aspiration had declared the contents of the pleura to be purulent, it was feared that a free incision would be needed, but this, even if successful, would have probably led to much retraction, since, owing to the many months' duration of the effusion, the lung must have been much compressed. It was determined, however, to give the lung a chance of expanding by frequent aspirations, removing a little fluid at a time—stopping, at all events, as soon as marked symptoms of distress showed themselves. The aspirations were conducted with great care and very slowly, very little pressure being used—in fact, not more than just sufficient to set the stream of pus in motion. Notwithstanding these precautions, the second aspiration was attended with alarming symptoms. The lung could not expand with sufficient rapidity to fill the space formerly occupied by the fluid, and hence there was great sinking-in of the thoracic walls in the præcordial region, with much dyspnœa and cyanosis. It would have been better if on this occasion the aspiration had been stopped a little sooner. However, in time the lung gradually expanded, and the retraction of the side ceased. The course of the temperature was of much interest. On admission it was almost invariably higher in the left axilla, or the side of the effusion; but as mischief began to be lighted up in the right lung, the temperature in that axilla was the higher, at one time by as much as a degree. It is doubtful whether, in certain cases, enough importance is attached to the inequalities of the temperature in the two axillæ.

ACADÉMIE DE MÉDECINE.—The vacancy in the section of Medical Pathology has just been filled up by the election of M. Maurice Raynaud, Médecin des Hopitaux and Professeur-agrégé de la Faculté de Paris, by the votes of fifty of the seventy-eight members present.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN JANUARY, 1879.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen: As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.	
				Saline.	Organic.	Before Boiling.	After Boiling.
Thames Water Companies.	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	21·40	0·130	0·165	0·000	0·012	13·2	5·1
West Middlesex...	20·00	0·120	0·165	0·000	0·015	14·3	4·6
Southwark and Vauxhall ...	18·20	0·135	0·105	0·000	0·011	11·5	5·1
Chelsea	20·10	0·033	0·210	0·000	0·007	13·2	3·3
Lambeth	21·30	0·037	0·135	0·000	0·009	13·7	3·7
Other Companies.							
Kent	29·30	0·002	0·435	0·000	0·003	19·4	6·5
New River ...	21·30	0·080	0·165	0·000	0·007	14·3	3·7
East London ...	23·00	0·049	0·135	0·000	0·011	14·3	3·7

Note.—The amount of oxygen required to oxidise the organic matters, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, the Grand Junction, Southwark and Vauxhall, Chelsea, and the Lambeth.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, FEBRUARY 15, 1879.

SCHOOL HYGIENE.

The introduction into England of compulsory education has been followed, as was only natural that it should be, by an increased attention to hygienic details. Indeed, it might be said that the origin of school hygiene is due to, and is the natural sequence of, the introduction of the Education Act. Dr. Hermann Cohn, who is the author of several works,(a) and who seems to have been one of the earliest writers, on the subject, points out the great advantage of well-built, well-ventilated, and well-lighted schools, and also of suitable school furniture—desks and benches.

We scarcely think that in these enlightened days anyone would venture to find fault with the much abused School Board authorities should they expend a little extra money on the building and furnishing of schools, even though those schools are for the gratuitous education of the poorer classes of the community, providing that this extra money were spent in securing all the hygienic advantages which modern science has invented; for such objects are matters of great importance to the community at large, as well as, and almost as much as, to the scholars themselves. Professor Liebreich, some five years ago, delivered a very able lecture on school life and its influence on sight, before the College of Preceptors at the Society of Arts. The London School Board took great interest in the matter, and carried out, we believe, on rather a large scale the principles which were advocated by this eminent oculist. Anything concerning sight, uttered by such a high authority, would be sure to receive great attention. We commented on the lecture shortly after its delivery, but a further brief allusion to it will not on that account be out of place now. The burden of the lecture was that certain defects of vision occurred so often during the school life of children that it was impossible not to connect the two circumstances. The defects referred to were decrease in range of vision, decrease in acuteness of vision, and decrease in the endurance of vision. Professor Liebreich showed that these defects were most probably due to an insufficiency of light or to the want of a proper adjustment of light. He further pointed out that unless these facts were definitely kept in view when the schoolrooms are planned and built, such evils would be almost unavoidable. The remedies suggested were both simple and efficacious—the first was, to have a sufficiently strong light falling upon the table from the left-hand side, and, as far as possible, from above; the second was, furnishing the schools with suitable desks and seats.

This last author has further enlarged his subject in a lecture which he delivered before the Society for the Development of the Science of Education, on "School Life and its Influence on Figure, and especially on the Spine."(b) In this second lecture it is shown how the want of sufficient light, by taxing the eyes to the uttermost, leads insensibly to the adoption of postures which, though they relieve the eyes for a while, yet are dangerous because they give rise to deformities of the spine.

It was in great part with a view to remedy this latter danger that improved desks and seats were advocated, and a model of such submitted. The great essential in these desks is a movable top, so that the inclination proper for writing may be easily altered to the inclination proper for reading. The seats are to be provided with backs, and the desks with foot-boards, both regulated in proportion to the height of the child. "The frequency of the so-called scoliosis, or lateral curvature of the spine, has its principal origin in the position in which children sit during their school-time, especially while writing."

Most of our readers, now that attention has been called to this point, will allow that children often do assume very extraordinary attitudes while writing; and it seems very natural that they should attempt insensibly to accommodate themselves to circumstances over which they have otherwise no control. If the light is not sufficiently strong; if the desks and the seats, having been made for big boys, are occupied by small ones,—it is obvious that there will be discomfort somewhere; and as the human body is more elastic and more plastic than ill-built schoolrooms and ill-constructed school furniture, it is clear on which will fall the task of adaptation.

We draw attention to these pamphlets, the importance of which is not to be measured by their size. Both treat on kindred subjects. Dr. Liebreich's points out the results, and suggests the remedies. Dr. Cohn's gives, in a concise form, an account of such models of schools and school-furniture as were submitted for inspection at the Paris Exhibition last year. Anyone wishing for an account of this subject will find in Dr. Cohn's book a short illustrated *résumé*, perusal of which will well repay all those interested in this important matter.

The subject of school hygiene is still in its infancy. As long as going to school is a voluntary act, and as long as parents can select a school for their children, the responsibility for any deformities or weakness which may result therefrom rests with the parents. Attention having been authoritatively drawn to the matter, cause and effect having been demonstrated and explained, and the remedy pointed out, we think that there is little fear of the non-adoption of the lessons which are thus inculcated. But in the case of the classes who come within the jurisdiction of compulsory

(a) "Die Schulhygiene auf die Pariser Weltaustellung." 1878.

(b) "School Life in its Influence on Sight and Figure." Two lectures by R. Liebreich. London: J. and A. Churchill. 1878. Pp. 36.

education, and who are obliged to attend such schools as are provided for them, and there to accommodate themselves to circumstances as they find them, the question assumes quite another aspect. We should question seriously whether, in many of the expensively built schools which have recently sprung up in London and elsewhere, that attention has been given to their lighting, which Dr. Liebreich regards, from the ocular point of view, as essential to success. And if not, it will not require any very abstruse calculation to guess the number of myopes which in the course even of one generation will be developed in them. When we remember that these schools are intended for the working classes, we must plead for a thoroughly scientific hygiene in its widest sense. For the poor can ill afford to be maimed, and are least of all able to afford those mechanical aids which even the rich find both cumbersome and comparatively insufficient.

PERIODIC HÆMOGLOBINURIA.

Among the diseased conditions which the improved methods of observation have brought to light of late years, perhaps none is better characterised than that which was first described in England by Dr. Pavy as "paroxysmal hæmaturia," and which has also more recently been called "intermittent hæmatinuria," and in Germany "periodic hæmoglobinuria." The number of cases recorded is not large; most of them are English, six German, and only two French, but there is a striking resemblance between all of them. After exposure to cold the patient shivers, suffers from peculiar sensations in the loins and extremities, becomes febrile, and passes dark-coloured urine, highly albuminous, often containing hyaline casts but no blood-corpuscles, although oxyhæmoglobin can be detected by spectrum analysis. At the same time the skin becomes sallow, the conjunctivæ perhaps ictèric, and the patient feels weak and depressed. Tenderness in the renal region is a common symptom, but the functions of all the other organs of the body may be normal. The temperature at the onset of an attack may reach 40 Cent. (104° Fahr.), or in the milder paroxysms may be little raised. We do not intend here to occupy more space with the details of individual cases, which can be found in Dr. Legg's paper (*St. Bartholomew's Hospital Reports*, vol. x.), in Professor Lichtheim's recent lecture (*Volkmann's Sammlung*, No. 134), or in the paper of Drs. Kobert and Kuessner (*Berliner Klinische Wochenschrift*, No. 43, 1878). A far more interesting subject of discussion is the source of the hæmatinuria. Is it due to a renal congestion, to an alteration of extravasated blood by oxalates in the bladder itself (Van Rossem), or to dissolution of the red corpuscles within the circulation at large? Let us consider the third hypothesis first, and, calling to mind the numerous experiments which have been made of late years on the transfusion of the blood of one animal into the circulation of another (see, for example, *Medical Times and Gazette*, vol. ii. 1874, pages 263, 689), let us compare the symptoms observed in these experiments with those met with in periodic hæmoglobinuria. They are very nearly identical. There is common to both the shiver, the transient fever, the lumbar uneasiness and pain, and the hæmatinuria, and the parallel has been rendered still closer by the occurrence of urticaria, a tolerably common sequela of "heterogeneous" transfusion, in a patient of Dr. Lichtheim's (*loc. cit.*, page 2) with periodic hæmoglobinuria.

Now, it has been proved by Landois and Ponfick that the red blood-corpuscles of one animal transfused into the circulation of an animal of another species undergo a gradual process of disintegration and solution, in which the colouring matter of the blood passes into the serum, and thence through the walls of the renal vessels into the urine. Hence we are justified in assuming that in hæmoglobinuria proper, a solution of the corpuscles of the patient's own blood takes place. Can we, however, go further, and explain the alteration in the quality of the serum on which the disintegration of the corpuscles depends? It is certainly known that chemico-physical changes—extreme dilution of the serum by water and by glycerine, the injection of saponified bile acids, the inhalation of certain poisonous gases, severe febrile diseases, and lastly, extensive burns of the skin—are attended, with more or less constancy, by hæmoglobinuria, the origin of which in solution of the red blood-corpuscles has been proved in the case of burns by Max Schultze, Werthheim, and Ponfick.

Further than this we cannot at present go. We can only conjecture that as the disease before us is invariably excited by exposure to cold, some poisonous excretion from the surface of the skin is prevented escaping by the sudden contraction of the cutaneous vessels, and thrown back into the circulation. It is not experimentally found that even severe cooling of the skin (in rabbits) produces hæmatinuria: so that cold *per se* may be excluded as the cause of corpuscular solution. The examination of the various organs of the body, especially those supposed to be mainly engaged in the formation of the blood—the liver and spleen—has as yet given negative results. The kidneys are probably only secondarily involved, as the passage of hæmoglobin through them in large quantities has been found experimentally (Ponfick) to injure their secreting apparatus; and even if sufficiently prolonged, to cause death by the pathological changes it induces in them. The icteric tint of conjunctiva so commonly noticed within the first few days of the attack is not dependent on bile pigment in the blood. A form of hæmoglobinuria of rapid onset, and sometimes fatal, has been described by Professor Bottinger (*Deutsche Zeitschrift für Thiermedecin*, Bd. III., 1877) in horses. The general symptoms, however, are different from those of human periodic hæmoglobinuria, and the reason for alluding to it here is the fact that sudden exposure to cold after several days' rest in a warm stable is invariably the exciting cause. The chief post-mortem change is renal disease similar to that produced by experimental hæmoglobinuria.

The curious immunity of the female sex in man from this disease throws no light at present on the true causation. It would, however, be interesting to know whether the same immunity prevails in horses.

After what has been written above, we need scarcely again refer to the hypothesis of renal congestion and vesical solution spoken of earlier in this article. Van Rossem's view, that oxalates cause disintegration of blood effused with the urine into the bladder, falls to the ground at once when it is found that oxalates are often absent in these cases, and that the presence even of a very few red blood-cells or their *débris* in the urine is extremely rare.

The prognosis of hæmatinuria is, according to Lichtheim, to whose excellent monograph we are largely indebted for the materials of this article, probably less favourable than English observers are inclined to regard it. Though no fatal case has as yet been recorded, the chances of complete recovery seem to be very doubtful. Lichtheim has watched a case for five years, and the attacks continue as they did at first. But we are perhaps justified in assuming that repeated fits of hæmatinuria will cause a more and more extensive disorganisation of the kidneys. The main element of rational treatment appears to be the avoidance of all causes of chill; if possible, the removal to a mild and temperate climate; warmth and rest in bed during the paroxysm; and the exhibition of iron in some one of its multitudinous forms when the pyrexia has subsided.

DERMATOPHONY.

The introduction of the microphone for the purposes of surgical diagnosis by Sir H. Thompson, and in Germany by Professor Maas, has led Professor Hueter of Greifswald to try whether it would not be possible by its means to detect certain sounds, whose existence may be *à priori* asserted, but which are inaudible by ordinary means. In the *Centralblatt Med. Wiss.*, Nos. 51, 52, 1878, he has proved that we can not only hear the rush of blood through the capillaries of the skin (dermatophony), but also the sounds of muscular contraction (myophony), of tendinous extension (tendophony), and of the vibration of the long bones when percussed (osteophony.) Of these the first application is the most curious and interesting. Hueter had observed, without the aid of the microphone, that if he pressed the tip of one of his fingers firmly into the external auditory meatus of his ear he heard a peculiar humming sound (*Bransen*), which was absent if a simple plug of wool or cork was used instead of the finger. With Edison's microphone, provided with a horizontal plate, he detected the same "murmur" on placing the finger-ends on the wooden disc of the instrument, and he was able to convince himself that it was not due to the friction of the fingers on the disc, the sound produced in this way being of altogether a different quality. The final proof that the murmur was really of hæmic origin, and dependent on the flow of blood through the vessels of the skin, was afforded by applying Esmarch's elastic band to the finger, and examining the bloodless part with the microphone. With the exclusion of the blood the murmur ceased.

As the microphone is not easy to apply to the skin of the body generally, and as, wherever the blood circulates, similar murmurs probably exist, Professor Hueter invented a special instrument or dermatophone, consisting of a flexible stethoscope with a thin caoutchouc membrane stretched over the end applied to the skin, and a perforated horn plug to fit the ear and close the meatus as completely as possible. With this instrument, which is supplied for half-a-crown by Weinberg, of Fischstrasse, Greifswald, Hueter has proved that the capillary murmur is most clearly heard where the circulation is most vigorous—namely, on the cheeks and at the finger-tips. In acute inflammation of the skin with marked inflammatory hyperæmia the murmur is louder, but deeper in tone than in the normal state. In venous stasis—*e.g.*, in the neighbourhood of ulcers of the leg—it is weak, and over extensive scars it is entirely absent.

The "tone of muscular contraction" is heard by pressing the dermatophone firmly on the overlying skin. It is deeper and duller than that caused by the tension of its tendon when the muscle contracts.

The percussion of a long bone—for example the ulna, using for this purpose a small hammer with a whalebone handle, and placing the dermatophone on the smooth surface of the olecranon—gives a series of tones which vary as the bone is percussed from below upwards. These tones appear to depend on vibrations of the thin cortical lamellæ, and of the osseous bundles of the spongy portion. Professor Hueter promises soon to enter into the practical value of these methods of examination, in an article in the *Deutsche Zeitschrift für Chirurgie.*

THE WEEK.

TOPICS OF THE DAY.

There is little doubt that one of the most absorbing topics of the day is the outbreak of the plague in Russia. The uneasy feeling on the subject, which is gradually extending to every country in Europe, is greatly increased by the utter want of confidence which is manifested in Russian official information. That country suddenly finds herself in a position which, by official reticence, she has endeavoured to escape from, and she contemplates with some dismay the prospect of an utter isolation from the rest of the world, which involves not only great pecuniary losses, but a certain amount of humiliation. The *Official Journal* of Russia, under date the 3rd inst., publishes a telegram from Astrachan, in which the Governor says that the epidemic "spreads exclusively by contact; the nearest neighbours of an infected house are not liable to catch it from the atmosphere; it is necessary, therefore, as soon as the plague shows itself, to isolate and destroy the infected building. Death follows the first symptoms in two days; no one has yet recovered from an attack." It may readily be understood, therefore, that the Russian people are said to hail with gratification the announcement that England is to be invited to send medical representatives to Astrachan, not only because we have so much shipping communication with that country, but also because many of our doctors have had practical experience of Eastern plagues. At all Mediterranean ports quarantine has been established, and at all the northern ports belonging to Germany similar precautions have been adopted. So vigorous, indeed, are the measures put in force by Germany, that recently at Hamburg the authorities refused to allow an English vessel arriving from Kustendji with a cargo of grain to discharge the freight consigned to that town, for fear of spreading infection. This measure has been considered so arbitrary that reference has been made to Lord Salisbury on the subject.

The Association for the Preservation of the Rivers of Scotland from Pollution recently held their annual meeting at Edinburgh, under the presidency of the Marquis of Lothian. The report presented advocated the appointment of conservancy boards throughout the country, who should have power to take steps for the prevention of river pollution, under the provisions of the Act of 1876, and suggested that the council of the Association be empowered to petition the Government to appoint such boards. Before the meeting separated it was resolved—"That this meeting is of opinion that there ought to be in this country, as in most other countries, a department of executive, one duty of which should be to look after the pollution of rivers, and see that they are kept free from such gross pollutions as not only unfit them for their primary purposes, but convert them into carriers of nuisances in the districts through which they flow." Last week, also, a deputation from Chorlton-cum-Hardy had an interview with the President of the Local Government Board, to request him to suspend the operation of the Rivers' Pollution Act, as regarded that district, for a few months, to allow the Withington Local Board to abandon their drainage scheme, and acquiesce in that proposed by the Corporation of Manchester. Mr. Sclater-Booth, after listening to the arguments put forward by the deputation, explained that it was not in his power to suspend the Act, for that could only be done in the gravest circumstances. He, however, promised to confer with the inspector appointed to institute an inquiry, before his departure for the locality.

The sanction of the Home Secretary has, it is stated, been given to the resolution of the Senate of the University of London, recognising the London School of Medicine for Women, Henrietta-street, Brunswick-square, as one of the institutions from which certificates of attendance are accepted. Students of this School can, therefore, now be admitted to the examinations for the medical degree of the University of London.

It is satisfactory to be able to record that an Order in

Council, under the Contagious Diseases (Animals) Act of 1878, has just been issued, providing that every local authority shall open and keep a register of all persons from time to time carrying on in their district the trade of cowkeeper, dairyman, or purveyor of milk; and also providing that, after a maximum period of two months, dating from the publication of notice by the local authority, it shall not be lawful for any person in the district of such local authority to carry on any of these trades unless he is duly registered. New buildings hereafter to be occupied as dairies or cowsheds are to have proper provision for lighting, ventilation, cleansing, drainage, and water-supply; and in all buildings, new or existing, the provision must be such as is necessary or proper for the health and good condition of the cattle, the cleanliness of vessels used for containing milk for sale, and the protection of milk against infection and contamination. Local authorities may also make regulations with regard to the cleansing of dairies, cowsheds, milk-shops, and milk-vessels. There are other provisions for the prevention of the contamination of milk in the case of disease, and no person suffering from a dangerous infectious disorder, or having recently been in contact with a person so suffering, is to be allowed to milk cows or to handle vessels used for containing milk, or to assist in any of the trades specified, until all danger of infection has passed away. The Order, which takes effect immediately, extends to Great Britain only; but a similar Order for Ireland appeared in the Dublin *Gazette* on Friday, February 7.

It is rumoured that one of the measures in the forthcoming domestic legislation programme of the present Government will be an extension of the Artisans' and Labourers' Dwellings Act to smaller towns in the kingdom. Under the Act, as originally passed, only towns possessing a considerable population are referred to, while it is generally admitted that many of a second-class magnitude would be greatly benefited could its provisions be brought to bear in their case. Should the Government see fit to introduce such a measure, there is no likelihood of any opposition to what would very generally be considered a great boon in a sanitary sense.

The approaching re-assembling of Parliament has, as usual, been the signal for all sorts of deputations to Ministers, and last week one of these bodies, representing the Alkali Manufacturers' Association, waited upon Mr. Sclater-Booth with reference to future legislation founded upon the report of the Royal Commission on Noxious Vapours The deputation presented a memorial which set forth that the evidence given before the Royal Commission alluded to, proved that many other works caused effects at least as injurious as those from alkali works, and also showed that the health of the districts where the alkali trade was carried on was as good as the health of other manufacturing districts. The memorial further pointed out certain portions of the Royal Commissioners' report from which they strongly dissented. In reply Mr. Sclater-Booth stated that it had always been his opinion that the alkali trade as a whole had deserved great credit for the alacrity and readiness with which they had met the requirements of the public in respect to the restrictions sought to be imposed upon them, and he assured the deputation that in any proposal which might be made by the Government, all the points which had then been laid before him should meet with careful consideration.

At the recent Leeds Assizes, Hezekiah Thornton, a herbalist, living at Bradford, was charged with procuring abortion. He had been tried at the last Leeds Assizes for the murder of Margaret Alison, who died after the miscarriage which, it was alleged on the part of the prosecution, he had brought bout. He was then acquitted on the charge of murder, but was subsequently arraigned on the present charge. The case against the prisoner was mainly made out by the dying statement of Margaret Alison, though there was other evidence, particularly of a payment to the prisoner of the sum of £5. The jury found the prisoner guilty, and he was sentenced to ten years' penal servitude.

Exception has been taken in certain quarters to the status of those medical men who have up to the present time been sent out to the Cape to do duty with the expeditionary force. We believe, however, that we are correct in stating that in every instance these gentlemen were recommended from the London schools or by the Stafford House Committee, that they are all upon the Medical Register, and that none of them are candidates previously rejected at army medical examinations for appointments in the Service.

The fortnightly return of small-pox patients in the several hospitals belonging to the managers of the Metropolitan Asylums up to the 7th inst., is as follows:—Homerton and Stockwell, none. Hampstead, admitted 2, died 1, discharged 2, remaining under treatment 18, number of beds available 282. Fulham, admitted 38, died 7, discharged 17, remaining under treatment 61, number of beds available 179. Deptford, admitted 80, died 20, discharged 51, remaining under treatment 256, number of beds available 74. These figures give an increase of 22 in the number remaining under treatment from the previous fortnight. As regards the previous return of fever patients, the present figures show a total decrease of 10 in the number remaining under treatment. At the recent meeting of the managers of the Metropolitan Asylums District, Mr. Bostock moved, and it was agreed, to erect in the grounds of the Stockwell Fever Hospital an additional pavilion for the accommodation of typhus fever cases, at an estimated cost of £6000.

For some time the Sheffield death-rate has not been altogether satisfactory, and Mr. Morley, the chief sanitary inspector to the borough, has just presented to the Health Committee a report on the condition of Heeley, an important suburb, where large numbers of dwelling-houses have during the past few years been run up merely for sale, and where, owing to defective drainage, many fever cases have occurred.

Many of our readers will be grieved to read, in the list of "killed and missing" in the recent disaster in Zululand, the name of Surgeon-Major Shepherd. It will be remembered that Surgeon-Major Shepherd rendered valuable assistance in organising the Volunteer Ambulance movement in the metropolis. His last act before leaving England on active service was to present to the Order of St. John, of which he was an honorary associate, the copyright of a little handbook on Ambulance, which we notice elsewhere.

EPIDEMIOLOGICAL SOCIETY.

At a meeting of the Society held at University College on February 5, the President, Surgeon-General John Murray, M.D., in the chair, Sir Joseph Fayrer read a paper "On the Relation of Filaria Sanguinis Hominis to Endemic disease in India," which we published last week. In the discussion which followed, Dr. Cobbold, in speaking of the development of the filaria, stated that after passing into the stomach of the mosquito it accomplished the first stage of its growth in thirty-six hours. The chrysalis stage—that in which the tail is shortened—is also completed in thirty-six hours. In the third stage the anterior part of the body grows prodigiously, and the sexual organs commence. At the end of the fifth day the larvæ escape into the water from the mosquitos, are then swallowed by man, pass into the blood, and subsequently into the lymphatics. At this period they are sexually mature. Mr. Power having spoken

of the difficulty of recognising filaria in the tissues of a tumour, as in elephantiasis scroti: Mr. Macnamara agreed with Mr. Power, that under these circumstances the difficulty was considerable, but that when present in the blood it could easily be seen on account of its movements. Messrs. Twining and Bretton, in the *Transactions of the Medical and Physical Society of Calcutta*, published in 1825, discussed the filaria fully, the impression being that in the case of horses affected with "worm in the eye," a paralysis of the hind limbs, from which many of them suffered, was due to the presence of entozoa in the muscular and nerve tissues of the lumbar region. It is remarkable that the same train of symptoms is mentioned by Sir Joseph Fayrer as occurring amongst dogs in China, in whose blood hæmatozoa have been discovered. In 1863, Mr. Macnamara published an account of cases in which he removed a filaria from the anterior chambers of two natives; in one of these the filaria was three-quarters of an inch long. In 1836-37, one of the physicians, deputed by the Government of India to examine into the circumstances of the Pali plague, reported that the disease probably depended on animalcules in the blood. Mr. Macnamara believes the causes of the Pali plague, whatever they were, were identical with those of the disease which at present exists in Astrachan; and from his experience of the Russians in the Volga, he wondered that they could exist without the presence of constant pernicious fever among them. Referring to Dr. Bancroft's case of leprosy, in which this gentleman found filariæ in the patient's blood, Mr. Macnamara pointed out that this case occurred in Queensland, in a semi-tropical climate, and containing a considerable Chinese population, among whom leprosy is known to exist. Dr. Lillebrand accounts for the introduction of leprosy into the Sandwich Islands by attributing it to the Chinese immigrants to Honolulu; and gives the case of a child of pure European blood, living in Batavia, pricking himself with a needle which had been thrust into the skin of a leprous child, and after two years developing leprosy.

REPORT ON THE DEATH-RATE IN DUBLIN.

Dr. Charles A. Cameron, Medical Officer of Health, Dublin, and Dr. Edward D. Mapother, Consulting Sanitary Officer, have drawn up, for the information of the city authorities, a report on the death-rate of Dublin, which was made public last month. At the outset they show by topographical references, and on the high authority of the Rev. Professor Haughton, that Dublin is built on the "bottom of a mud valley," and is therefore naturally placed under most disadvantageous circumstances. Again, the unusually low temperature which has prevailed in Dublin with but few breaks since November last has done much to swell the death-rate, but so long a period of intense frost may not again occur for very many years. Referring to the epidemic of small-pox in Dublin, these gentlemen express an opinion that the disease is largely due to the absence of proper legislation on the subject of vaccination, and they quote the statement made in the last report of the Irish Medical Association in support of their views. This statement was as follows:—"Your Council deeply regret that the vaccination laws at present in force in Ireland, which are admitted to be very imperfect, have not ere this been modified, and feel justified in expressing their opinion that the Government has been left without excuse for its inaction with regard to this important matter; and they feel bound to state further, that had either of the Bills suggested by the Association been made law, much of the loss of life and other evils which are daily being caused by the present epidemic of small-pox would have been averted." The report therefore urges the necessity of impressing on the Government the advisability of taking action in the matter. In summing up the different reasons which they consider may account for the high death-rate of Dublin at the present time, we find they are as follows:—A large increase in the percentage of persons in Dublin over fifty years of age, caused by emigration of younger persons; a more correct system of registering deaths than was in force formerly; the deaths of strangers in the city not being so fully eliminated from the roll of deaths as they are in English cities; and, finally, the large number of sick persons who are sent to the Dublin hospitals from all parts of the country, and of whom a large proportion die in Dublin. Last quarter, it is stated, 33 per cent. of all the deaths in Dublin occurred in hospitals, workhouses, etc., whilst the proportion of deaths in such institutions is, on the average, only 15 per cent. for all Ireland. Finally, the report asserts that, notwithstanding all the exceptional circumstances affecting the Dublin death-rate, the mortality in the registration district is, one year with another, not more than twenty-seven per 1000.

MILK TYPHOID IN DUBLIN.

Dr. Cameron, the Medical Officer of Health and City Analyst for Dublin, is still engaged in thoroughly investigating the remarkable outbreak of "milk typhoid" of which we gave an account last week. Out of fifteen typhoid patients recently under treatment in one hospital alone, six are proved to have been drinking milk from the infected dairy up to the time they became ill. Several valuable lives have also been lost amongst the residents in some of the most fashionable parts of Dublin, the origin of the fever in all the cases being clearly traced to the use of the particular milk. Meanwhile, the Local Government Board for Ireland have declined to accede to the request of the Corporation of Dublin to hold an inquiry on oath into this outbreak of "milk typhoid." In their reply to the Corporation the Local Government Board state that, so far as they are aware, no exception has been taken to the accuracy of Dr. Cameron's report, and they "do not understand what advantage is expected to arise from such a sworn inquiry as the Municipal Council have recommended. At a meeting of the Corporation last Monday (February 10), Mr. Gray, M.P., very severely criticised the inaction of the Local Government Board in the matter. In connexion with this subject of milk as a carrier of disease, we are glad to see in the Dublin *Gazette* of Friday, February 7, an important Order in Council as to Clean Dairies. The Order in Council is issued in accordance with the provisions of Section 34 of "The Contagious Diseases (Animals) Act, 1878," and takes effect from Monday February 10, 1879. The regulations as to the registration of cowkeepers, etc., the cleanliness of dairies and cow-sheds, and against the contamination of milk, are very stringent.

A PROPOSED CONVALESCENT HOME FOR INFECTIOUS CASES IN DUBLIN.

On Wednesday week a conference on this important subject took place in the Council Chamber of the City Hall, Dublin, the result of which was that a committee was appointed to report to the Public Health Committee of the Corporation, and to make inquiries respecting a suitable building for the purpose. At the weekly meeting of the Public Health Committee, on Friday, February 7, Drs. George F. Duffey, Hawtrey Benson, J. W. Moore, and G. Purcell Atkins, waited on the Committee with reference to the proposed convalescent home for persons recovering from dangerous infectious diseases. Dr. Mapother, Consulting Sanitary Officer, and Dr. Cameron, Medical Officer of Health, were in attendance. It was pointed out that the Corporation were not desirous to undertake the management of such an institution, but were most willing to contribute liberally to

its support. Eventually it was decided to present a requisition to the Lord Mayor, asking him to convene a meeting of the citizens at the Mansion House, in view of the pressing public necessity for such an establishment to prevent the spread of infection, and to make some provision for the wants of convalescents, especially for those of the better classes. The requisition has been influentially signed—amongst others, by his Grace the Archbishop of Dublin, Sir A. E. Guinness, Bart., M.P., and Mr. Maurice Brooks, M.P., the members for the city of Dublin; and we understand that the Lord Mayor has convened a public meeting, to consider the subject, for an early day next week.

PROFESSOR FLOWER.

We are glad to learn that Professor W. H. Flower, LL.D., F.R.S., has been elected President of the Zoological Society. Hitherto, we believe, the honour of the presidential chair has been reserved for aristocratic Fellows of the Society; some of whom, however, have been real and able working students of zoology, as was the last President, the late Marquis of Tweedale. But the Society has done well in breaking the aristocratic line, and electing an eminent anatomist and zoologist; and they certainly could not have chosen a more able and popular representative of science as their new President than the distinguished and always courteous Conservator of the Museum of the Royal College of Surgeons.

CHLOROFORM AND CHLORAL.

From Dr. R. Köhler's report on "The more Important Events in Professor Bardeleben's Clinic at Berlin in 1876" (*Charité Annalen*, 1878), we learn that in consequence of the occurrence of four cases of death by chloroform, and a large number of unsatisfactory instances of its use in the Clinic, this anæsthetic has been replaced by ether, or by "chloral-chloroform." Since this change accidents have disappeared. The deaths occurred after the inhalation of very moderate doses of chloroform. In the treatment of delirium tremens, on the other hand, chloral has been replaced by morphia, more than half the cases having died of late years under the chloral treatment. With the reinstatement of morphia the mortality appears—and Professor Küster has made the same observation—to have again diminished.

THE PLAGUE IN EUROPE.

The President of the Royal College of Physicians has convened a meeting of the College, "to consider what steps should be taken by the College in the interests of the public in view of the reported existence of the plague in the East of Europe."

THE CASE OF INTRA-VENOUS INJECTION OF MILK IN DUBLIN.

We regret to learn that the patient, on whom the operation of injecting milk into a vein was recently so successfully performed by Dr. Robert McDonnell, has since died. There can be no doubt that the operation prolonged the patient's life for several days.

DEATH OF PROFESSOR CHAUFFARD OF PARIS.

Dr. Emile Chauffard, the eloquent Professor of General Pathology at the Paris Faculty, and Medical Inspector-General of the University, one of the most eminent and highly esteemed members of the medical body in France, died almost suddenly at the end of last week. We hope shortly to furnish some account of his career.

MANCHESTER MEDICO-ETHICAL SOCIETY.

The annual meeting of this Society was held on January 30. The following gentlemen were elected as officers for the year 1879 (an asterisk is attached to the names of those who did not hold the same office during the preceding year):—*President*: *John Thorburn, M.D. *Vice-Presidents*: *W. H. Barlow, M.D.; C. H. Braddon, M.D.; *R. W. Ledward, M.D.; and *Peter Royle, M.D. *Treasurer*: J. Stone, M.D. *Hon. Secretaries*: A. Wahltuch, M.D.; and J. Broadbent. *Committee*: *S. M. Bradley; J. B. Brierley, M.D.; E. Bishop; *A. C. Clarke, M.D.; *R. D. Fox; *J. S. Fletcher, M.D.; *F. M. Pierce, M.D.; *T. H. Pinder; J. F. Tatham, M.D.; *J. Ross, M.D.; and J. Watson, M.D.

THE MEDICAL SCHOOL OF CAMBRIDGE.

The recent active growth and developement of the Medical School of the University of Cambridge must, we are sure, have been watched with great interest and satisfaction by the profession at large. The study of the art of medicine can never, probably, be so developed there as to do away with the necessity of further study at the great clinical schools of London and other eminent medical centres; but every movement for the improvement of the study and teaching of the science of medicine in that University must meet with general sympathy and support. We are therefore glad to learn that the following memorial has just been presented to the University of Cambridge Commission. It has been signed not only by all the leading Cambridge graduates in medicine, but by almost the whole body of Cambridge medical graduates; and endorsed by the present President of the Royal College of Physicians (Dr. Risdon Bennett), by Drs. Sieveking and C. Murchison, by Sir James Paget, and by Messrs. John Simon, Prescott Hewett, and J. Lister:—

"We, the undersigned graduates of the University of Cambridge, engaged in the study or practice of medicine, desire to express to the Commissioners our sense of the need which exists for the further development of the study and teaching of medical science in the University; and respectfully to urge that the opportunity afforded by the pending revision of college and university statutes, may not be allowed to pass without suitable provision being made for the extension of this branch of scientific study.

"In nearly all other European universities the advancement of medical science is recognised as amongst the most important of academical functions, and the study and teaching of it encouraged by larger endowments than any other branch of science. In Cambridge very large encouragement is given to almost every branch of science and literature, except medicine, and even more than this, emoluments already existing have lately been curtailed, as we are informed, by the extinction of certain medical fellowships at Trinity and Caius. Much has indeed been done during the last few years for the promotion of the natural sciences, and amongst them of those which form an important part of the ground-work of medicine, such as chemistry and physiology; but no steps have been taken to provide for the more extended and complete study and teaching of the sciences of pathology, medicine, and surgery.

"Of these the science of pathology, in addition to its value as an essential part of the complete study of medicine, has now attained such precision, proportions, and general importance, and offers such great promise of future development, that it seems to us fairly to demand recognition as one of the foremost subjects in the sphere of university work. The foundation of a Professorship of Pathology, would, we are convinced, meet a pressing and obvious want in the scientific teaching of the University, and could not fail to redound greatly to its honour and reputation. Such professorship would require to be endowed with an income sufficient to secure a man of scientific eminence, and render the holder independent of medical practice, so that he should be able to devote his whole time and energy to the work of teaching and of original investigation. We, therefore, most respectfully pray the Commissioners to take into consideration the expediency of causing due provision to be made for this purpose in the distribution of college and university endowments."

FROM ABROAD.

Syphilis in relation to Marriage.

The following is the substance of two lectures delivered at the St. Louis by Dr. Fournier, and reported in the *Gazette des Hopitaux*, January 7 and 14:—

How often it may happen in your practice that a patient comes to you stating that he has an opportunity of being married, but that, having contracted syphilis some years since, he is desirous of knowing whether he is cured, and whether he can safely undertake the marriage. You must be under no misconception as to the import of the reply which you make to such a question. You assume a considerable responsibility, for there are few medical problems the solution of which is so difficult and so serious. If, on the one hand, you interdict the marriage to a man apt to contract it, you thrust out of a regular mode of life one who is anxious to enter upon it. Your medical dictum may wreck his happiness and future prospects. If, on the other hand, you by error authorise a man to marry, who has not been cured of his syphilis, you at once see to what disasters you expose not only the man himself, but his young bride to whom he brings the pox as a wedding present, and the whole family that may spring from the union. I have too frequently taken part in these family dramas, and I can assure you that nothing can be more atrocious than the position of such a man, not only in presence of a wife who weeps but easily pardons, but in presence of the new family which will certainly not pardon, or in presence of a contaminated nurse, who recriminates, raises scandal, and divulges.

Let us, then, seek for a solution of this terrible problem; and the first question we have to examine is, Does syphilis constitute an absolute obstacle to marriage? "When one has the pox one must remain a bachelor," you may hear said daily in the world, and even by certain practitioners. I could cite the names of two most honourable *confrères*, who, joining practice to precept, have renounced marriage. One of these, who enjoys a high reputation, has never allowed himself to be convinced by me, always replying, "When one has syphilis one keeps it to oneself." To this profession of faith, which indicates the exaggeration of the feelings of delicacy of a rightly placed heart, I say, "No, when one has syphilis one gets it cured, and then one has the right to aspire to be the procreator of a family." Syphilis is not an insurmountable obstacle, an absolute interdiction to marriage. Daily observation shows us incontestable examples. Every day we are meeting men whom we have known the subjects of syphilis, and who have married, have transmitted absolutely nothing to their wives, and have children in as flourishing a state of health as could be desired. The proofs of this truth abound and superabound. I would defy anyone who had been in practice for some years not to be able to cite some examples. For my part, I have fifty-one written and complete cases, besides all the others which my recollection calls to mind. These fifty-one syphilitic husbands have had altogether ninety-two children, the whole of them healthy. I call to mind by chance one of these husbands who has four children, and another who has five; and their family doctor for a long period, I have never perceived the slightest trace of syphilis either in their wives or their children, whom I am constantly seeing.

I conclude, therefore, in saying to you, with a conviction fortified by observation, "Yes, a hundred times yes, a man may marry after having had syphilis." But he ought only to marry on certain conditions, which we have now to determine. What are the dangers which a syphilitic man carries with him in marriage? A man who marries with an unextinguished syphilis is dangerous as a husband, as a father, and as a member of society.

1. He is dangerous as a husband by reason of the lesions to which he exposes his wife, and that in two ways:—(1) By simple, common, vulgar contagion, by which she may transmit syphilitic accidents in the thousand intimate relations of conjugal life. To cite only one example of this: a young man, in the highest position in the world, who had married in spite of my advice, had syphilides at his mouth, which were mistaken for ulcerations caused by an abuse of the cigarette; and three months after his marriage his young wife was affected by an indurated labial chancre. Examples of this kind are very frequent amongst young married people; and this is readily understood from the extreme contagiousness of secondary syphilitic accidents, and the multiplied relations of domestic life. It would be a rare exception to find a young wife living more than some months with a syphilitic husband without contracting the disease. The pox, says a witty author, is divided between the married just as their daily bread. (2) By placental contagion or conception. A young girl having married a man with syphilis still upon him, after some months we are called to her on account of certain unusual appearances presenting themselves, and we find syphilides, condylomata of the mouth, adenopathia, alopecia, etc. On searching for the origin of these appearances, neither the initial chancre nor bubo (its faithful companion) is discovered; secondary symptoms, without any primary ones, only being found. When the husband is interrogated, he is asked whether he had not noticed some slight erosion; but he protests energetically that he has had nothing of the kind, having examined himself carefully before and after each connexion. And, in fact, he is right. His wife may have become syphilitic through contact with a man externally sound. This fact, of so paradoxical an appearance, has been observed too frequently for anyone to venture or dream of doubting it for an instant; its insistance has been quite significative, and it has truly forced itself upon us. This mysterious contagion is explained by the fact that the wife is pregnant; and you always find in these cases that there has been a pregnancy or an abortion shortly before—the mother having taken the syphilis from her infant, and not from her husband. Contagion operated through placental exchange is an absolutely authentic fact at the present time.

2. A man with syphilis still upon him is dangerous as a father. Until a period not far removed from our own, the heredity of syphilis was regarded as fatal; but the question has changed face, and, especially in Germany, it has been sought to restrict the influence of this parental heredity. For certain authors syphilis in the father would seem to be rarely hereditary, and for some of them it is never so; so that it has been written, "Paternal influence in this point of view is *nil*, and the child of a syphilitic man is healthy." This doctrine is vitiated by exaggeration and by enormous errors, which, even in a social point of view, it is of importance to oppose with energy. I hold it as a constant fact that a syphilitic father is a source of danger for his children; but I acknowledge that syphilitic heredity proceeding from the father alone, the mother remaining unaffected, is much less vigorous than it has been stated to be. A father being syphilitic, and the mother being sound, the child has every chance, if it comes into the world, of not being syphilitic. This concession made to the partisans of the doctrine which I am opposing, I proclaim the results of observation, and state that it is not true that the paternal influence never exhibits itself by the fœtus. If paternal heredity is rare and restricted, it is exerted sometimes; and Ricord, Trousseau, Diday, Liégeois, etc., have published incontestable examples of this. But this is only a very small part of the question, which becomes more grave from another consideration. The death of the fœtus *in utero* is a fact of very frequent occurrence in the cases with which we are engaged. The child of a syphilitic father dies in the womb of its mother, and is expelled by an abortion or premature labour. A young woman aborts once, twice, or three times in succession, without absolutely any other cause being discernible than the syphilis of the father. And the counter-proof is still more conclusive, for, the father having been cured, the following pregnancies go on to their time, and the infants are born living, and even thriving. I have observed these facts a great number of times, and may mention one example among others: I one day met, by mere chance, an old friend whom I had not seen for a long time, and who related to me that his wife, who was strong and in good health, had had four successive miscarriages. Remembering that he had had a syphilis which had been but carelessly treated, I advised him to undergo an effectual treatment for this syphilis, which I did not believe had been cured. My advice was followed, and I learnt, fifteen months after, of the birth of a fine infant, who now, at ten years of age, enjoys excellent health; two subsequent pregnancies having a like fortunate issue. To sum up, then, whenever we find ourselves in presence of a series of successive abortions, occurring with-

out known cause in a healthy and well-formed woman, we must often have to recognise that they are due to no other cause than to syphilis of the father, which has killed his child in the very womb of its mother.

Another capital point is that a syphilitic father is dangerous for his children in his position as the husband of their mother. He may, in fact, transmit his disease to his wife; and thenceforward, the father and mother; both being syphilitic, what becomes the lot of the children? For an infant born of a syphilitic father and mother there are but three alternatives—(*a*) Either it is dead before its birth (and assuredly this is the best thing that can happen to it), (*b*) or it will be born at full time, the subject of syphilis; (*c*) or it will survive with compromised health and exposed to all the intervals of disease.

(*a.*) As to the first case, death *in utero*, experience is complete. Thousands of facts testify sufficiently to this truth; and all the cases so agree as to appear to have been stereotyped from the same type. The pernicious influence continues the same in ulterior pregnancies, so that we meet with series of four, six, or seven, always terminating in the same manner. I saw at the Lourcine a woman who, married at nineteen, was vigorous and superb, and had three very fortunate pregnancies. Her husband then contracted syphilis, and communicated it to his wife. Falling pregnant, she aborted at the fifth month; a second pregnancy was terminated by the premature birth of a dead child; a third, a fourth, and fifth with the same; a sixth with an abortion at the third month; and a seventh with one at six weeks. This case is exceedingly conclusive: seven abortions succeed to three pregnancies, and occur after the transmission of syphilis. (*b.*) If the infant is born living it is syphilitic, and consequently exposed to all the consequences of infantile syphilis. By care and attention we are indeed able to save some of these victims, but the majority fatally succumb. (*c.*) When the infant escapes death and syphilis, the hereditary influence may betray itself in another manner, by the native debility which characterises these piteous, old-looking, wrinkled, and wretchedly constituted infants. There is nothing to show syphilis, but they are so delicate that they are unable to live, and almost invariably succumb—extinguished without disease or apparent cause even at the post-mortem. Or, again, they are born with certain morbid predispositions. Thus (1) they are, or soon become, hydrocephalic; (2) they are very frequently the subjects of nervous disturbances, as epilepsy when very young, and convulsions later, often dying from simple convulsions; (3) they have also a marked tendency to lymphatism, and offer but a feeble resistance to scrofula. Not that scrofula is a metamorphosis of syphilis, as has been erroneously contended, but it is incontestable that syphilis constitutes a predisposition to scrofula.

3. A man who, having syphilis, yet marries, is dangerous as a member of society. Under this heading, Dr. Fournier exhibits in forcible language the remote injuries which a man may inflict upon himself by leaving syphilis untreated: and the immense responsibility to society he incurs by venturing on marriage under such circumstances. Many of the considerations advanced are in their moral bearing too generally admitted to require our reproducing them.

(To be continued.)

A Long-lived Family.—Denis Pansiot, an old *sergent fourrier* of the Army of the Rhine, under Moreau, had seven children, the eldest of whom was born 2 Floréal An IV. (1795), and the youngest April 5, 1814. All inhabit the commune of Brochon (Côte d'Or); all are quite well, and hard workers. Eighty-one years have, therefore, elapsed since there has been a death produced in this family.—*Union Méd.*, February 6.

Return of Pilgrims from Mecca.—The return of the pilgrims who took part in the last pilgrimage to Mecca has now terminated, and all has taken place in most satisfactory conditions from a sanitary point of view. The Turkish administration has had the remains of the animals who were immolated during the three days' stay on the plain of Mina, collected, thrown into pits, and covered with quick-lime. The number of the pilgrims on this occasion was comparatively small, being estimated at from 80,000 to 90,000.—*Union Méd.*, February 4.

REVIEWS.

The Bearings of Chronic Disease of the Heart upon Pregnancy, Parturition, and Childbed; with Papers on Puerperal Pleuro-Pneumonia and Eclampsia. By Angus Macdonald, M.A., M.D., F.R.S.E., etc., Lecturer on Midwifery and the Diseases of Women in the Medical School, Edinburgh, etc. London: J. and A. Churchill. 1878.

This is a very good book. As we examine its contents, we shall state in more detail what we think about its value, but we would first say that as to its method, both in design and execution, it is a model of what a scientific treatise should be. The author does not give us as new something long ago written and forgotten; neither does he work solely from his own limited experience. In these points it would be well if others would imitate him. On the contrary, he has taken the trouble to learn what is old, before trying to find out something new.

He begins with a review of what others have done to throw light on his subject, taking first the normal condition of the heart during pregnancy, and then the mutual influence of heart-disease and the pregnant and puerperal conditions. These chapters contain not simply an abstract of different papers, but a critical judgment of their worth; and this part of the book being itself a summary, we cannot further condense, nor can we do it justice by quotations. He thus commences by assimilating, so to speak, the work of those who have gone before him, so that he starts where they have left off.

Dr. Macdonald then lays before the reader the evidence upon which his own conclusions are based, and which consists of the histories of thirty-one cases of heart-disease complicated with pregnancy and parturition, some of which have occurred in his own practice, while others are quoted. They are, as they ought to be, given in detail. They of course must be studied by those who wish to appreciate their bearing.

We pass on from them to the essential part of the book, viz., the conclusions. We take first Dr. Macdonald's views as to the physiological changes in the circulatory system which accompany the child-bearing process. He holds that during pregnancy hypertrophy of the heart takes place, and that there is, particularly in the latter months, exalted vascular tension; that the tension diminishes slightly, but only slightly, after delivery, and that it gradually returns to the normal during the lying-in period. These points we think may be taken as fairly proved. We then come to the bearings of heart-disease upon pregnancy and childbirth. For convenience of criticism, we shall not take Dr. Macdonald's conclusions in exactly the order in which they occur in the book. He finds that, "in connexion with all cases of heart-disease complicating pregnancy, but especially with those in which acute symptoms of endocarditis appear, there is great danger of embolism." That women in childbed are very liable to plugging of vessels has, of course, long been known. "In severe cases" (of heart-disease) it is seldom that we find pregnancy continue uninterrupted to the termination of the ordinary period of utero-gestation." He goes on to say that in severe cases "the labour was found to be invariably accompanied with extreme cardiac irregularity, with, also, a feeble, irregular, and intermittent pulse, much dyspnœa, and cyanosis." In some instances sudden death was noticed. The chief evil effects during labour appear to him "to be produced from the exhaustion of the weak heart by the extra strain it is subjected to during the second stage." As to these statements, we are at one with Dr. Macdonald, for we think that the evidence he brings is strong enough to bear them out. He holds, further, that "slight exposure to cold and exertion in the case of pregnant patients who suffer from heart-disease, is very liable to set up destructive and dangerous pulmonary disturbances, which may give rise to pulmonary œdema, congestive bronchitis, hæmorrhagic infarctions of the lungs, pneumonia, pleurisy, nephritis, etc." And that, "independently of such exciting causes, there appears to be engendered by the pregnant condition a special liability in such patients to become sufferers from these diseases" (page 200). The objection which we have to take to this is one which our author has foreseen; but we are inclined to give more weight to it than he does. It is this: that, for aught we

know, the cases might have had the same symptoms, and run nearly the same course, had the patient not become pregnant. Cases of heart-disease do get attended with the pulmonary and other troubles above named, and end fatally, in patients who are not pregnant. And Dr. Macdonald's own cases show that there are patients with heart-disease who become pregnant, and pass through labour and childbed, without aggravation of symptoms. Therefore, in our opinion, it is not certain that the course which the disease ran in the other cases was specially modified by the pregnancy. Before we can be sure of this, we want more precise knowledge than we have of the natural history of heart-disease. We admit, however, that it is different with the special symptoms which, in our author's cases, accompanied so uniformly the process of labour. We know that they do not form part of natural labour, nor are they common as a transitory phenomenon in heart disease; and therefore we conclude that they are due to the effect of labour upon a diseased heart. Indeed, we should expect the exertion of labour, in the same way as any other muscular effort, to further embarrass an already failing heart; but we think it has not yet been quite proved that there is any other way in which pregnancy specially aggravates heart-disease. The author's inductions, therefore, as to the risks and the management of labour, when complicated with heart-disease, we accept; but we should like further evidence as to the effect of pregnancy and the purperal state upon heart-disease.

The author's practical conclusions are the following:—"That chronic heart-disease ought to be looked upon as a grave contra-indication of marriage;" "that in all cases when consulted, we ought not to give our consent to marriage, if, in connexion with chronic heart-disease, there are any serious symptoms of cardiac disturbance present." "All possible causes likely to produce inflammatory action in the lungs and all severe exertion, should, if possible, be avoided during the pregnancy, and more particularly during the latter months of it." "Premature labour should seldom or never be recommended, because it is so much more likely to do greater harm by disturbing the heart and the condition of the lungs, than any good it might produce by terminating the evil effects of the pregnancy. It is always to be remembered that relief of symptoms is not certain after delivery, or indeed anything like certain." We may say, by the way, that we do not see why premature labour should produce worse effects than labour at term: but we none the less agree with the author in his opinion. "The only conditions which seem to warrant the induction of premature labour are the presence of influences which unduly distend the abdomen." "The same general principles of management ought to guide us in the case of a patient with chronic heart-disease during pregnancy and the lying-in period, as are followed by us in dealing with patients who suffer from heart-disease apart from pregnancy." "If carefully administered, chloroform cannot but be useful." "All legitimate means ought to be used to lessen the effects of the down-bearing efforts; and therefore the judicious and timely application of forceps, or in suitable cases the performance of version, is extremely important if the second stage of labour happens to be in any way prolonged." The recommendations we have quoted (and somewhat abbreviated) seem to us wise and supported by evidence. Dr. Macdonald gives some others, the reasons for which we do not think equally strong. He holds that we should more strongly dissuade from marriage in the case of mitral stenosis or aortic incompetency; but that there is less danger with mitral insufficiency alone. As to this, we would say that his cases do not seem to us numerous enough to permit conclusions as to the relative risk of different forms of heart-disease to be safely drawn. "Such patients as are married and have chronic heart-disease ought not to be allowed to suckle their children." The evidence in support of this appears to us insufficient.

The book also includes two cases of puerperal pleuro-pneumonia, with remarks upon them, and a paper on the essential pathology of puerperal eclampsia. With regard to the latter condition, the author rejects the Traube-Rosenstein theory. His view is, that the convulsions are the result of cerebral anæmia, this anæmia being due to irritation of the vaso-motor centre of the medulla oblongata by impure blood circulating therein. A very suggestive part of the paper is that in which the condition of the kidneys is described and commented on. Dr. Macdonald finds this to be rather a degeneration than a commencing nephritis. He throws out the idea, whether, in some occult way, pregnancy causes degenerative changes, not only in the liver, but in the kidneys. This would seem to link together, as perhaps closely allied in their pathology, puerperal convulsions and acute atrophy of liver. This chapter must be carefully studied by anyone who wishes to do justice to the difficult subject of which it treats.

In conclusion, let us say again that this book contains scientific work of the best kind. It is worthily dedicated to Dr. Matthews Duncan, and the influence of that great scientific worker and teacher is traceable in it. It is not a book to be treated with mere approving generalities, and therefore we have freely criticised; and we doubt not that this is what Dr. Macdonald would wish. In the course of time, no doubt, some later worker will take up the subject where our author has left off, and thus Dr. Macdonald's work will in its turn meet comparative oblivion, by being merged in the fuller knowledge of later research; but it is only by such assimilation and incorporation that the individual value of the book can become lessened.

Handbook describing Aids for Cases of Injuries or Sudden Illness. By Surgeon-Major Shepherd. Published by the Order of St. John of Jerusalem. Pp. 73.

This useful little book has come out at a time when, owing to the rapid spread of the ambulance movement, its guidance will be of much avail to teachers and taught. The author having had but a limited time at his disposal, "owing to the exigencies of the service," the work errs in being over-terse; and the authorities of the Order of St. John would do well in future issues to improve the excellent little work by allowing for enlargement on some points. Thus, the absence of diagrams and descriptions to show the use of the triangular and roller bandages is a distinct want. The addition of a section on such subjects as the making of poultices, cookery, etc., would be of great advantage; and few more such casual additions would render the book everything that could be desired for the purpose designed. We trust Dr. Shepherd may soon be able to return with distinction from foreign service to complete the work so ably begun.

[Since the above was written, only a few days ago, a melancholy interest has been added to anything associated with the respected name of Surgeon-Major Shepherd. It is all but certain that the hope expressed for his speedy return from Zululand is one that never can be realised; though the telegrams do not forbid our hoping that he is among "the missing"—not among "the killed."]

SHORT NOTICES OF BOOKS.

Our Domestic Poisons; or, the Poisonous Effects of certain Dyes and Colours used in Domestic Fabrics. By Henry Carr, Mem. Inst. C.E. London: W. Ridgway, 169, Piccadilly. 1879.

The author of this pamphlet has endeavoured, by recapitulating the evils arising from arsenical poisoning through the medium of wall-papers and articles of clothing, to arouse a combined action which shall eventually lead to a Parliamentary inquiry, and consequent legislation on the subject. He thinks, and with good reason, that a law making the manufacturer and retailer of all such poisonous goods liable to the purchaser, whether illness be produced or not, would probably be found an efficacious mode of prevention. Mr. Carr has our best wishes for the success of his efforts in this direction.

Fourth Annual Edition of the Classified Directory to the Metropolitan Charities for 1879. By W. F. Howe. London: Longmans, Green, and Co. 1879.

This will be found a useful book of reference, as it gives full particulars respecting over one thousand metropolitan charities, religious, medical, educational, etc. The special feature of this, the fourth edition, is an appendix containing a nominal list of a large number of the unendowed or voluntary charities throughout England and Wales. The names and addresses are therein given of provincial hospitals, infirmaries, general dispensaries, provident dispensaries, etc.

The editor offers an apology for the incompleteness of the information contained in this supplementary list, which, however, he promises shall be made more complete in detail from time to time.

Notes of Statutes and Legal Decisions affecting the Public Health Act, 1875. From 1875 to 1878 inclusive. By J. V. Vesey Fitzgerald, Esq., B.A., barrister-at-law. London: Longmans, Green, and Co. 1879.

These Notes now published are intended as a sequel to the work previously placed before the public by Mr. Fitzgerald at the time of the passing of the Public Health Act, 1875. As other legislative enactments which have become law since then—notably the Canal Boats Act, 1877—the Factories and Workshops Act, and the Highway Act, 1878, affect and modify the principal Act, whilst the powers and duties of local authorities have been considerably increased by the Amendment Act of 1878, the author has considered it necessary to supplement his former work by quoting several cases which show some of the alterations introduced, and hence the issue of the present little book.

The Patentee's Manual: being a Treatise on the Law and Practice of Letters Patent, especially intended for the use of Patentees and Inventors. By James Johnson, barrister-at-law, and J. Henry Johnson, Assoc.Inst.C.E., solicitor and patent agent. London: Longmans, Green, and Co., Paternoster-row; Stevens and Son, 119, Chancery-lane. 1879.

It is undoubtedly a matter of some difficulty in these days to discover anything new, but a glimpse at the Messrs. Johnson's treatise would, at the outset, impress one with the idea that it must be a matter of even greater difficulty to secure one's invention to one's own profit. This volume of 423 pages, however, has only arrived at its present magnitude upon attaining to its fourth edition, and it has been enlarged and considerably added to, with the view, as the authors explain in their preface, of rendering it serviceable to the legal profession as a book of reference in matters relating to the law of patents. At the same time the book is so written that the patentee himself can readily ascertain what he must do, and what is perhaps of more consequence, what he must not do, in this country, in the colonies, and in nearly every foreign country all over the world. The authors have also not forgotten to provide that prime necessity to a book of this description—a copious and complete index.

Trichinæ in American Pork.—Some investigations have been just completed by two Chicago microscopists, Drs. Belfield and Attwood, as to the prevalence of trichinæ in the pork that comes to our markets. Specimens were taken at random from 100 hogs being slaughtered at the different slaughtering houses. In eight of these trichinæ were found, the number varying according to estimate from thirty-five to 13,000 in the cubic inch of muscle. This is doubtless approximately the average of infection of the pork brought to Chicago for packing. The trichinous disease must be much more prevalent now than ten or twelve years ago. Then, an examination of quite a large number of hogs was made on behalf of the Academy of Sciences, showing only about one infected in fifty. Messrs. Belfield and Attwood have experimented upon rats and other animals, and have come to the conclusion that when the trichinæ are taken in small numbers and not too frequently, any animal, and man, may eat them with impunity. A rat was killed after it had been fed at intervals of two or three days for six weeks with a few trichinæ. It was estimated that there were 100,000 in its body, but during the six weeks it appeared perfectly healthy. So persuaded was Dr. Belfield of the innocuity of small numbers of trichinæ that three weeks ago he ate twelve living trichinæ, and as yet has had no unpleasant symptom. He believes that a large percentage of our population are really infected with trichinæ. Some experiments with agents for the destruction of these worms are in progress; and it has been found that a very little sulphurous acid mixed with the brine during pickling will kill all the trichinæ without damaging the pork.—*New York Med. Record*, December 28.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, February.

Female Medical Education—Endowment of Edinburgh University—Edinburgh Maternity Hospital—Glasgow Maternity Hospital.

The General Committee for securing a medical education to women is still in existence, and Miss Jex-Blake is also in a position to reappear at any time before the public. Both of these must be painful facts to the lovers of peace and prosperity whose duties call them to lecture in Edinburgh University and practise their profession in the Edinburgh Royal Infirmary. The General Committee has given some indication of the aggressive nature of its intentions by christening itself with a new title and propounding a new creed. At a meeting over which Professor Masson presided it has been resolved that the name of the Committee be changed to "National Association for Promoting the Medical Education of Women," and the objects of the Association have been stated to be (1) to collect, print, and disseminate information respecting all questions relating to the medical education of women; (2) to organise such efforts as may from time to time be necessary for the promotion of the interests of the movement in Parliament and elsewhere; (3) to encourage increased facilities both for the education and examination of women in medicine, and from time to time to offer scholarships for the benefit of women who need such assistance in order to enable them to pursue their studies; (4) to co-operate with the medical women already on the Register, and to aid in the removal of any special difficulties that they may encounter; (5) to afford a meeting-point and bond of union to all persons who sympathise in the above objects.

The adoption of the report was moved by Miss Jex-Blake, seconded by Professor Calderwood, and unanimously adopted. An executive committee was appointed, and Miss Jex-Blake—probably influenced by that form of gratitude which consists of a lively sense of favours to come—thanked the Committee, which had just risen to the dignity of Nationalism, for its services during the more modest period of its existence.

Professors and lecturers who remember the annoyances of the recent crusade of the lady-students will be very careful how they commit themselves in the event of a new raid upon their class-rooms and their opinions. Should another contest occur, the best wish that we could express towards the Edinburgh Medical School would be that Miss Jex-Blake should again act as the leader of her party. Her restless energy would hasten the unsuccessful issue of the contest.

I mentioned recently that the consumption of stimulants in the Edinburgh Royal Infirmary had shown by its increase that recent discussions on alcohol had not influenced the opinions of Edinburgh medical men with regard to its medicinal administration. When the adoption of the report was proposed at a special meeting, this subject was commented upon by one of the managers, but he did not bring forward a motion—only a suggestion. Such suggestions are not in good taste, inasmuch as the medical and surgical staff have as much right to opinions on the subject as contemporary reviewers, and an equal right to act upon them. The managers of an infirmary should recognise that they cannot interfere with the medical administration of stimulants any more than they can with the doses of drugs.

At the annual meeting of the Association for the Better Endowment of the University of Edinburgh, the chairman, Sir Robert Christison, spoke favourably of the state of affairs and of the progress which had been made during the past year. He made a passing reference to a bequest of £10,000 which had been expected, but which had been withdrawn because the University had permitted experimentation upon living animals for the advancement of physiological research. Sir Robert stated that the gentleman who had intended to leave the money would make a great mistake if he thought that his re-determination would in any way influence the University in relation to physiological research, or affect "the sense of duty of the professors and the students who assisted them." This intended benefactor seems to have been quite sincere in both his intentions, but scientific men would be very foolish if

they were to allow themselves, as a rule, to be affected by such statements as his. Nothing could be easier than for any enemy of practical physiology to advance such a statement. At the worst it would not be a greater misrepresentation than is habitually practised by agitators against vivisection. It is gratifying to hear from Mr. Campbell Swinton that this gentleman may have again changed his mind, and that he may remember the necessities of the Endowment Association after all.

Mr. W. J. Bishop, whose exposure of the tricks of spiritualism was mentioned in the *Medical Times and Gazette* of January 25, was so successful in winning the favour of well-known men in Edinburgh, that a large number of professors in the Glasgow University, as well as medical men and others outside the University, have signed a requisition asking him to visit Glasgow and repeat his demonstrations. Should Mr. Bishop consent—and in all probability he will—the proceeds of his entertainments will perhaps be handed over to the managers of the Western Infirmary. In Edinburgh the net proceeds (one hundred guineas) were given, through the Lord Provost, to the unemployed.

Dr. Ziegler, after ten years' service, has resigned his appointment as one of the ordinary Physicians of the Edinburgh Royal Maternity Hospital. Dr. Angus Macdonald has been unanimously appointed in his stead.

It is a pity, for the interests of the Glasgow Maternity Hospital, and for the repute of hospitals in general, that its name should recently have been so much before the general public. Another sad event is published in connexion with its management. It is stated that late one evening a young woman who had previously applied for admission, and who was requested to return when she began to feel ill, came to the gate of the hospital in accordance with her instructions. She was informed that there was no room for her, and was sent home. On the way she was delivered of one child, and on her arrival at home she became the mother of another. The woman is said to be in a state of great danger. There is much painful comment upon the case, and the authorities are said to be investigating it. Fair play, of course, requires that patience should be exercised till both sides have been heard, but at the best the case occurring during this inclement weather is a painful one. Should the officials at the Maternity Hospital be able to prove that they directed the girl to the lying-in wards of the City of Glasgow Workhouse, which is quite close to the Maternity Hospital itself, they would be comparatively exonerated.

Mr. J. Holmes, electrician, St. Vincent-street, Glasgow, has applied the principle of the telephone to the construction of an improved stethoscope. It is claimed for Mr. Holmes that by the introduction of a diaphragm of hard, light metal into a stethoscope little altered in shape or size, he has been able to render the sounds associated with the action of internal organs much louder and more distinct than when the ordinary instrument is used. Mr. Holmes also hopes to improve his stethoscope to the extent of recording by means of it the action of an internal organ for any given period.

The Menopause.—Dr. Sussdorff concludes a paper which he presented to the New York Academy of Medicine "On the Radical Treatment of Local Disease at the Menopause," with the following propositions:—1. That the time of the menopause as regards the inception and aggravation of disease, is at least of equal importance with that of puberty, or any other epoch of life. 2. That while, as a rule, the majority of functional and organic diseases of the female generative organs decrease in intensity subsequent to the menopause, still there are a very considerable proportion of cases in which the opposite takes place, even to the extent of benign disease becoming malignant. 3. That in a good many instances these latter cases do not necessarily present decided local symptoms of the actual pathological conditions present, but are indicated by general signs which usually attract attention chiefly because occurring at that particular time of life. 4. That in no case of local or general disorder occurring just prior to or during the menopause should a local examination be omitted, which will frequently reveal at a glance the origin of the hitherto inexplicable phenomena, and also indicate the treatment. 5. That such therapeutical measures should be radical and effective, quite regardless of this particular time of life, the dangers of operating during which have undoubtedly been exaggerated.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, February 4.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

Extensive Ulcerating Cancerous Gland-growth, Secondary to a very small Primary Warty Swelling on Lip.

The President exhibited a patient in whose right submaxillary region there was a malignant glandular swelling as large as one's fist, with an extensive ulcerating surface. The primary seat of infection was a very small warty patch on the lower lip, which was so small, and so slightly raised above the general surface, as to be in danger of escaping observation. This patch was of ten or twelve years' duration, and probably resulted from the irritation of a pipe; but it had never caused so much uneasiness as to induce the patient to apply for its treatment, though it had sometimes been more troublesome than at present. The secondary glandular disease began only four months ago. The President had never seen so small a primary sore give rise to such a large and distinctly malignant glandular growth. It might, indeed, be doubted by some whether the two lesions were causally connected; but he thought the case served to show the advisability of the early removal of all warty or epitheliomatous growths on the lip.

Spinal Cord from a Case of Infantile Paralysis.

Dr. Frederick Taylor exhibited microscopical specimens with drawings illustrative of the condition of the spinal cord in infantile paralysis. He remarked that in many instances of this disease continental observers had found certain lesions of the cord; but few such observations had been hitherto made known in this country. His own specimens showed appearances similar to those described by continental pathologists. The spinal cord was that of a girl three years of age, who had become the subject of infantile paralysis when fifteen months old. There was a doubtful history of a blow at the onset of the affection. For a few days the child suffered from great pain in the left lower extremity, with some feverishness, and then the limb was found to be paralysed. The pain, however, continued for ten days longer. The paralysis persisted, no other part being affected. Galvanism was applied, and though the muscles did not react at first, they afterwards did so, and after five or six months the patient could use the limb in standing, or even in walking, a little. In September, 1878, she became an out-patient at Guy's Hospital, suffering from cough in addition to the paralysis, and in the next month, having been admitted into the hospital, she died of broncho-pneumonia. At the time of admission the left leg was distinctly deficient in power, though she could use it in standing for a short time; but Dr. Taylor could give no information as to the electric condition of the paralysed muscles. There was sensation in the limb. Post-mortem, the spinal cord showed to the naked eye, on transverse section, a distinct diminution in size on the left side in the lumbar region. This diminution affected both the grey and white matter, and was true of all the diameters, but it was most marked in the anterior cornu. The anterior nerve-roots were also clearly smaller than on the right side, but the left posterior nerve-roots seemed unaffected, though the left posterior cornu was diminished with the rest of the left hemi-cord. The microscope detected only very few ganglion cells in the left anterior cornu, and those few showed important deviations from the normal characters. They were smaller in size, paler in colour, less sharply defined, and had fewer and shorter processes, than on the right side. Their absence or disappearance was most noticeable in respect of the groups normally occupying the centre and outer border of the cornu. There was also a great diminution in the number of nerve-fibres passing backwards from the left anterior nerve-roots through the grey matter. They were not characteristic, and were soon lost. The main substance of the anterior cornu consisted of a very dense and felt-like tissue made up of uniformly matted fibres—an increase and condensation of the normally open spongy basis structure of the part. Connective-tissue nuclei were seen

here, but did not appear to be increased in number or in size. Very few vessels were visible, and these seemed to have their walls thickened. The remaining nerve-cells were not surrounded by translucent spaces, but were embedded in this felt-like structure. No granular corpuscles were visible. The white matter of the left antero-lateral column was also much denser in texture than normal, the connective tissue being increased; while the nerve-tubules were smaller than usual, and were deficient of axis-cylinders. The bundles going to the left anterior nerve-roots, and these nerve-roots themselves, contained a large quantity of fibrous tissue, with only few distinct nerve-fibres. The left posterior cornu and column, though diminished in size to the naked eye, seemed normal in microscopic structure. The posterior nerve-roots had the same structure on both sides. As regards the right side of the cord, though there had not been observed any motor defect of the right leg, the right anterior cornu yet presented a distinct diminution of ganglion-cells, as compared with a perfectly healthy specimen, and a less degree of the same felt-like structure observed on the left side. These lesions of the cord, in this case, affected only the lumbar region. The muscles of the front and back of the thigh of the affected limb were soft, pale, watery, and fatty. Dr. Taylor remarked that the onset of the disease with acute pain in the limb was a somewhat peculiar point in the case, which he did not think had any explanation in the alleged history of an antecedent blow or injury.

Acute Myelitis in a Case of Recent Infantile Paralysis.

Dr. Turner exhibited a series of microscopic specimens with drawings illustrative of this condition. These were prepared from the spinal cord of a child aged two years and a half, who had been the subject of recent infantile paralysis. The previous history of the child was obscure. In December, 1877, it was admitted into the London Hospital under the care of Mr. Hutchinson, being reported to have had an unimportant fall a month before. A fortnight later the left leg was found to be paralysed, and soon afterwards the left arm also became affected. On admission both legs were found to be paralysed both as to motion and as to sensation; both arms had also lost motor power, but retained sensation. The child lay perfectly still on its back, with the head retracted. There were not even reflex movements in the limbs, and the evacuations were involuntary. Attempts at rotation of the head caused great pain. A fortnight later the child had improved somewhat; it no longer lay constantly on its back, and the head could be moved with less pain. The evacuations, however, were still involuntary. Sensation was next restored to the legs, and some degree of motor power was returning in the arms and legs, when the child began to suffer from measles, and died of bronchopneumonia in January, 1878, a month after admission. Post-mortem the spinal cord presented, in the recent state, red softening in the anterior cornua, most marked on the left side. The changes were most noticeable in the lumbar enlargement, in the left anterior cornu of which the microscope showed hæmorrhagic spots, with no trace of the proper nerve structures in the softened patches. The polar cells had disappeared, and there remained only a fine fibrous reticulum with three kinds of leucocytes—exudation corpuscles, granular bodies without nuclei, and leucocytes like simple nuclei. The left posterior cornu in the same tract was also free extremely affected, no polar cells being visible except at its posterior border, and with a high power. The corresponding right anterior cornu showed similar changes to those of the left, but they were not so marked. More remnants of the proper nerve structures could be discovered, a few partially degenerated ganglion cells being visible. The right posterior cornu was also less affected than the left one. The softening of the anterior cornua seemed to extend the same distance above and below on the two sides. Sections in the lumbar region above the softened tract showed no important changes in the grey matter, while sections below revealed groups of leucocytes surrounding the vessels. In the dorsal region the changes were less important than in the lumbar enlargement. Here the polar cells seemed normal in the left anterior cornu, while in the right there were scarcely any polar cells, but there was no great accumulation of leucocytes around the vessels as seen elsewhere. In the cervical region, again, the lesions were well marked, and were most pronounced on the left side, where there was almost complete absence of polar cells in the anterior cornu. In the medulla and pons the only important change was an increase in the number of leucocytes throughout, as in almost all the other sections. There was also distinct sclerosis affecting the white tracts of the antero-lateral columns throughout the cord, most marked on the left side. Dr. Turner remarked that the accumulation of the three kinds of leucocytes round the walls of the vessels seen in his sections agreed with what had been previously observed in cases of acute infantile paralysis by Damaschino, Leyden, and others. In one or two sections this accumulation was seen where there were no other changes in the structure, so that it would appear that the course of the lesion in this disease was along the vessels in the first instance.

Sections of the Cord from a Case of Infantile Paralysis.

Dr. Humphreys (of Manchester) showed this series of sections from a case of infantile paralysis of longer standing than either of the preceding. The child from whose cord these were taken died of scarlet fever in May, 1878, aged three years and six months. She had begun to walk when fifteen months old; but two months later she fell ill with "relaxed bowels," and lost the use of her legs. She soon afterwards recovered the power of walking to a limited degree, the left leg continuing very weak. During the last fourteen months she had walked on her left heel, and a shortening of the left lower limb had been noticed. From an examination, made a few days before the onset of the scarlet fever, the left lower limb was found to be a quarter of an inch shorter than the right. The left calf was five-eighths of an inch, and the left thigh a quarter of an inch, less in girth than the corresponding portions of the opposite limb. She had a marked left talipes calcaneus, the foot being in a position of dorsal flexion, the toes and ball of the foot not touching the ground. No reactions were obtained either to the faradic or constant current on the wasted limb. Nevertheless, from the somewhat unusual nature of the deformity, there was reason to believe that some tonicity must have been left in the extensor muscles of the leg. No difference was observed in the temperature of the two limbs. At the autopsy, with the exception of some cloudy swelling in the liver and kidneys, the viscera of abdomen and thorax were healthy. The brain was not examined. The spinal cord in the lumbar portion presented changes evident to the naked eye. The left half of the section was much smaller than the right, and the left anterior cornu, in particular, was much smaller and much more opaque than the right, the asymmetry of the section being chiefly due to the shrinking of the antero-lateral portions of grey matter, though the posterior cornu was also greatly wasted. On microscopical examination of the cord, the changes were found to be limited to the lumbar portion, and ceased to be appreciable at a level two inches above the origin of the filum terminale. This terminal portion of the cord was divided into three parts. The average of twenty sections from the lowest segment showed on the healthy side fifty-two large nerve-cells in the antero-lateral, and seventy-nine in the postero-lateral group; whilst the corresponding numbers on the diseased sides were thirteen and eleven respectively. In the group figured by Erb as *a'*, there were fifteen cells on the healthy, and none on the diseased side. In the middle segment, taking the groups in the same order, the averages for the healthy side were twenty-one, thirty-six, and thirty-one, against six, twelve, and ten respectively. In the upper segment the averages were, in the medial group, ten on the healthy, against nine on the diseased; in the antero-lateral, thirty, against five and two-fifths; and in the posterior vesicular column, thirteen against six. On the diseased side the regions from which the nerve-cells had entirely or partially disappeared had shrunken very much, and had materially narrowed the breadth of the grey matter, especially in the anterior horn, causing a marked recession of the contour of that part. Some of the remaining nerve-cells on the diseased side were considerably smaller than those of the opposite one. They retained their nuclei, and were not pigmented. No definite textural difference in the grey matter was shown by the sections. The vessels were somewhat more numerous, and their perivascular sheaths were also more thickened than on the right side. The white columns presented no sclerotic or other change, like those described by Panot and Joffroy. Dr. Humphreys remarked on the simplicity of the pathological changes in his series

of sections as compared with those just described by Drs. Taylor and Turner.

Warty Growths on the Tricuspid Valve.

Dr. R. Crocker showed a specimen of this condition in the heart of a girl who had died at the age of thirteen. She had never had rheumatic fever, but had had chorea seven years previously, and had never been well since. Before the chorea she had had measles and scarlet fever. Patient was admitted into the East London Children's Hospital, suffering from general venous congestion, cyanosis, and anasarca. There were the physical signs of general cardiac enlargement, with a presystolic thrill and murmur at the apex. This murmur was audible as far out as the left axillary line, and also towards the ensiform cartilage. At the base, in the second intercostal space, to the left of the sternum, there was also a short, distinct, diastolic thrill and murmur. The latter, though loudest at this point, was audible all over the area of cardiac dulness. A few days after admission the basic murmur was no longer audible, though the thrill continued perceptible. The patient died, three weeks after admission, of pulmonary œdema and cardiac failure. Post-mortem, the heart was found greatly enlarged, especially transversely; it weighed twelve ounces and a half. Both the cavities of the right side were dilated, and filled with dark, soft clots, the right ventricle being also much hypertrophied. The tricuspid valve appeared competent; its circumference was three inches and a half, and its edges on the auricular surface were fringed with warty papillæ about one-eighth of an inch long. Both the left auricle and ventricle were dilated and hypertrophied, especially the ventricle. The mitral orifice was contracted to a mere slit, only one inch in circumference. The aortic orifice leaked slowly, but was probably competent during life. The pulmonary artery was very large, but its valves were competent. Dr. Crocker thought that the diastolic murmur heard at the left base on admission was probably due to a temporary leakage at the pulmonary orifice, resulting from the great pulmonary congestion and right heart engorgement. A diastolic murmur from such a condition is recorded by Hope and quoted by Hayden. The tricuspid lesion was doubtless secondary, as usual, to the mitral stenosis. As evidence of the extreme rarity of warty growths on the tricuspid, it was mentioned that, in Reynolds' "System," Sibson records the observation of only one case in twenty years in the post-mortem room of St. Mary's Hospital. In vol. xix. of the Society's *Transactions*, Dr. Wilson Fox records a case found in association with congenital malformation of the heart, and in vol. xxvi. Dr. Morrison records a case of extensive warty growths on both the pulmonary and tricuspid valves. Dr. Crocker also remarked on the size of the heart, which weighed twelve ounces and a half, Dr. Peacock having found the maximum normal weight in the adult healthy female to be ten ounces.

Dr. Coupland had also put on the table three specimens of tricuspid endocarditis. One of these showed the so-called vegetations; the other two were cases of tricuspid stenosis, associated with mitral stenosis. In regard to the frequency of tricuspid endocarditis, he might mention that during four successive years there had been observed six cases in the post-mortem room of the Middlesex Hospital; and in every instance the right side lesion was associated with left endocarditis.

Three Cases of Congenital Malformations of Heart.

Dr. R. Crocker exhibited these specimens. The first was from a girl who had died at the age of six years. She had been cyanosed at birth, and had had severe convulsive fits at intervals during the first few months of life. When under observation before death there was constantly heard reduplication of the first sound over the ventricles, the first half being the louder. There was also a faint blowing systolic murmur over the right base of the heart, sometimes distinct, sometimes absent. It was said that previously there had been heard a loud, harsh, systolic murmur all over the præcordial region, but loudest at the aortic cartilage. The patient died suddenly in a fit of epileptiform convulsions; the temperature, which had at first been subnormal, having risen slightly before death. Post-mortem, the heart was found to weigh four ounces and a half, and the transverse diameter was equal to the length. The right auricle was dilated, and communicated through the foramen ovale with the left auricle by a valvular slit a quarter of an inch long. The two cavæ and the coronary sinus opened normally into the right auricle, and the tricuspid was normal. The right ventricle was large. The infundibulum was small, forming a separate cavity, but communicating with the ventricle. At the upper part of the sinus, in the undefended space, immediately behind the posterior cusp of the tricuspid there was an oblong aperture in the septum leading into the left ventricle and aorta. The left auricle with its veins was normal. The left ventricle had a wall thinner than that of the right, and the whole cavity was smaller than the right one. Mitral valve and orifice normal. The valves of the pulmonary artery were adherent, forming a cone, at the apex of which was an aperture of the size of a crow-quill leading into the vessel, which was very thin-walled. The ductus arteriosus was pervious to a probe, and the aorta arose partly from the right ventricle. The second specimen was from a boy who died at the age of two years. He was said to have been healthy at birth, but had been subject to convulsive fits since the sixth month of life. When he came under observation his face was much cyanosed, and the fingers much clubbed. The first heart-sound was reduplicated at the apex, the first half being the louder. These signs continued until death, which took place quietly. The temperature had varied very much, being sometimes subnormal, sometimes reaching 104°. Post-mortem the heart was found to weigh two ounces and a quarter. The transverse diameter was greater than the longitudinal. The right auricle was dilated. The foramen ovale had a slit-like orifice a quarter of an inch long, opening into the left auricle, and separated by some columnar fibres from a larger slit, half an inch long, formed by the non-adherent edge of the Eustachian valve. The cavæ opened normally, and the tricuspid was normal. The right ventricle was dilated and hypertrophied. There was a V-shaped aperture in the undefended space of the septum ventriculorum, about the size of a goose-quill. The infundibulum was distinctly separated from the sinus, but communicated with the ventricle, a sacculus passing downwards for about half an inch into the substance of the septum ventriculorum, terminating above in a small aperture which opened into a very small, thin-walled pulmonary artery, the obstruction at the orifice of the artery being caused by a membrane showing no evidence of a valvular origin. The foramen was not in the centre of this obstructing membrane. The left auricle was normal, as were also the mitral orifice and valve. The left ventricle was dilated slightly, and the cavity communicated, through the septum ventriculorum, with the aorta, which was much dilated in its ascending portion, and arose almost entirely from the right ventricle. The ductus arteriosus was impervious, and the other vessels were normal. The third specimen was from a child who came under observation when seven months old. It had appeared healthy at birth, but became cyanotic when a fortnight old, and was subject to fits. There were signs of cardiac enlargement, but no bruit was heard. The pulse was irregular and intermittent. Fingers and toes not clubbed. The child died after three months. Post-mortem, there was found collapse of lungs. The heart was nearly globular in shape, the ventricular portion consisting almost entirely of a much dilated and hypertrophied left ventricle. The mitral was normal, but the part of the ventricle anterior to the valve formed a pouch, the septum ventriculorum being concave instead of vertical. From the top of this pouch the aorta arose; and at the upper part of the septum was a small, rounded foramen, opening into the rudimentary right ventricle, the cavity of which consisted merely of a shallow channel leading from the perforation in the septum to the infundibulum, preceded by a canal half an inch long, and about the size of a crow-quill, which terminated in the pulmonary orifice. This last was narrowed by adherent valves to the diameter of a line, while the pulmonary artery itself was not more than a quarter of an inch in diameter, and was very thin-walled. The ductus arteriosus was closed in its middle part. The right auricle was much larger than the left, the two cavæ and the coronary sinus opening into it normally. There was no opening into the right ventricle, and no trace of a tricuspid. The foramen ovale was widely open, admitting the tips of two fingers, and was divided in two by a thin cord of membrane. The aorta was slightly dilated in its ascending portion, but was otherwise normal.

Eczema Squamosum of Leg.

Mr. Howse exhibited a recent specimen, showing a condition which he thought was best described by the term "eczema squamosum." The limb had been removed from a patient for knee-joint mischief. The patient had had a blow on the knee, sinuses had formed, and backward dislocation took place slowly. On the surface of the limb below the affected joint there had been observed a weeping condition, followed by the peculiar thickening of the epidermis seen in the specimen. The surface was of a brown, dirty colour, and covered by hard scales like armadillo scales, which could be detached, leaving only slightly altered structures below. Mr. Howse compared the specimen with two models from Guy's Hospital museum, showing similar scaly conditions, but they had received the names, the one "ichthyosis," the other "eczema impetigo." The last term (impetigo) was not well applied, as the scales were evidently epidermal entirely. The term "eczema squamosum" he thought was justified by the nature and history of the affection. The brown colouration was not due to pigment, but to dirt. He thought the explanation of the condition was found in the chronic congestion of the epidermal tissues which had resulted from the joint affection.

The President thought that Mr. Howse's explanation of the origin of the condition was correct, but he would ask whether such a term as "ichthyotic elephantiasis" was not more descriptive than that suggested by the exhibitor. The changes seemed to be nearer elephantiasis than eczema. Probably the accumulation of scales and dirt on the surface was due to the fact that the joint-pain prevented their removal by washing.

Dr. Duke also thought the case clearly one of elephantiasis.

Mr. Howse, in reply, objected to the term "ichthyosis," as the condition was not congenital. There might be less objection to it in the adjective form, as in the term suggested by the President; but he did not think there was much ground for the use of the name "elephantiasis." The new development of fibrous tissue, as compared with the opposite limb, was not very great. The peculiarity of the case, as justifying the name he had suggested, was that a weeping condition of the surface had preceded its present appearance.

Inflammatory Condition of the Synovial Membrane of the Hip-Joint.

Mr. Barker showed a recent specimen, exhibiting great injection of the synovial membrane of the hip-joint, especially round the ligamentum teres and the neck of the femur. When quite recent the purple colour of the membrane was very marked. There were also fringes of synovial membrane with small melon-seed-like bodies, showing well the beginning of loose bodies in the joint. The other joints did not show the same condition. Mr. Barker hesitated to assign the cause of the appearances. The patient, who had lived only eight days after admission into hospital, had been the subject of chronic rheumatic arthritis affecting many of the other joints, and had also had extensive disease of the knee-joint of the same limb. This knee was found to contain much pus, and the cartilages were destroyed. The medullary canal of the femur above the knee-joint was the subject of osteo-myelitis. A firm laminated clot was found in the profunda vein. There had been no signs of pyæmia or septicæmia. The temperature had not risen at all. Whether the appearances of the specimen were to be referred to rheumatic arthritis, or to the osteo-myelitis of the femur, he would leave to others to say.

The New Appointments at the Charenton Lunatic Asylum.—The *concours*, at which sixteen candidates competed, has just terminated by the election of M. Christian, Médecin en chef de l'Asile de Maréville (Meurthe), and M. Ritti, Inspecteur-adjoint des Asiles d'Aliénés de la Seine. M. Christian is appointed to the male, and M. Ritti to the female side.—*Gaz. Hebd.*, February 7.

Royal College of Surgeons.—Professor Parker, F.R.S., commenced his annual course of lectures on Monday last. This day (Friday) Dr. Humphry will deliver the biennial Hunterian Oration at three o'clock, and we are requested to announce that members are not required to be provided with tickets. In the evening the President and Council will entertain a large and distinguished party at dinner in the library of the College.

NEW INVENTIONS AND IMPROVEMENTS.

ROBSON'S PATENT INHALER.

Thomas Allen and Son, of Marylebone-lane—many of whose inventions we have already commended to the attention of our readers—have lately brought out a simple and efficient inhaler, the construction of which will be easily understood from the accompanying illustration. If simple vapour of water is to be inhaled, the vessel is to be about half filled with boiling, or nearly boiling, water, and the lid pressed on with a slight twist, so as to make it air-tight by means of an indiarubber band that surrounds the rim. The air then enters by the holes in the lower rim, and, rising through the central air-chamber, mixes with the vapour and issues in a stream from the mouthpiece. If medicated vapour is desired, the medicament is added to the boiling water, the cap placed on the central chamber, and the lid fitted as before. On then drawing at the mouthpiece, and thus creating a vacuum in the upper part of the vessel, the air passes down the arms of the cap, enters the fluid at the lowest point, and escapes at the surface, charged with the medicament employed. The vapour, thus thoroughly medicated, may then be easily breathed. The inhaler is very simple, well made of tin, easily cleaned, and cheap.

THE CLOUD RESPIRATOR.

Mr. Kenneth N. Mackenzie has invented and patented a new, very simple respirator, which we are glad to recommend to the notice of our readers. We have been in the habit of advising ladies to use the "cloud," so much worn round the throat, as a respirator on cold days, or on leaving heated rooms, and the new respirator is simply a very small "cloud." It is a somewhat oblong square of lamb's wool, knitted in pretty close meshes, with a loosely-looped surface, and is large enough to cover the mouth and nostrils. It is very light, is not unpleasant to wear, and is easily carried in the pocket when not in use. It is efficient for its purpose, is less unsightly than respirators usually are, and it costs only a shilling. It is manufactured by William Mather, Farringdon-road, London; and is made, we understand in two colours, either white or slate.

PEARS'S TRANSPARENT SOAP TABLETS, PERFUMED WITH OTTO OF ROSES.

Pears's Transparent Soap has already such a well-established reputation as a good, pure, easily-lathering soap, of special value for delicate skins, and in skin diseases, that any recommendation of it now would be altogether superfluous. But we have lately received from the inventors (91, Great Russell-street, Bloomsbury) some tablets of it perfumed with otto of roses; and we must say of it that it is an excellent and very agreeable toilet soap. But the addition of the otto of roses places it in the category of rather expensive, though very desirable, luxuries.

Royal College of Physicians, London.—At the last meeting of the College it was ordered, on the recommendation of the Examiners—"That the College represent to the various medical schools the defective knowledge concerning the use of obstetrical instruments evinced by the candidates who present themselves for the College licence, and ask their co-operation in promoting a more accurate knowledge on those subjects."

Gresham Lectures.—The Gresham Professor of Medicine, Dr. E. Symes Thompson, will commence on Tuesday, the 16th inst., a course of four lectures on "The Medical Aspects of Insurance." The first lecture will be on Insurance in General, and the three following on "The General Principles of Life Assurance," "The Medical Aspects of Life Assurance," and on "Gout in relation to Life Assurance." The lectures will be delivered in Gresham College, Basinghall-street, at six o'clock each evening.

OBITUARY.

PROFESSOR AMBROSE TARDIEU.

THIS eminent man and great professor has recently died, before he had completed his sixtieth year, in consequence of cerebral disease, which for the last three years has prevented him fulfilling any of his numerous important public functions. Of his origin and early life we have seen no account, beyond that he was descended from an old Parisian family; but from the time of his taking his doctor's degree, when about twenty-five years of age, in 1843, his career may be described as having been one long series of successes. His selection of legal medicine as a subject of special study and pursuit, Dr. H. Guéneau de Mussy stated in the oration which he delivered at his grave, almost arose from an accident. Having to testify before a *juge d'instruction* concerning the condition of a victim of criminal violence, who came under his care while an *interne*, that magistrate was so struck by the excellence and lucidity of the depositions which he made, that he besought Tardieu in future to devote himself to that branch of medicine which renders its aid to justice. He followed this advice, and the judges and juries soon became familiar with the appearance of this juvenile-looking expert with the open countenance; his lucid exposition of views characterised by remarkable sagacity carrying conviction to their minds. He soon obtained a precocious and uncontested authority in all medico-legal matters. The credit which he enjoyed with the magistracy became immense, so that his word almost became law with them. "But a success like this," M. de Ranse observes, "has sometimes its danger, and risks the encounter of rocks not always to be avoided. This occurred to Tardieu on some occasions, several of his *expertises* in celebrated cases having greatly excited public opinion, giving rise to severe criticism. Many of such criticisms were doubtless unfounded; but it would be difficult to affirm that Tardieu had always confined himself within the purely scientific mission appertaining to the medical expert, without ever infringing on the province of the accusation or the defence." His experience was in fact immense, so that probably no other expert in the world, says Prof. Chauffard, ever prepared so prodigious a number of reports, some of these attaining very extensive development. This can be spoken of with certainty, for Tardieu himself kept a catalogue of all those he had ever prepared, and by the year 1876 they had reached the incredible number of 5289!

The Faculty soon responded to the general opinion entertained of his qualifications by appointing him first as assistant to Adélon, Professor of Legal Medicine, and afterwards as his successor. In this branch of activity he became as successful and as popular as in the law-courts. His lectures, which were models of flowing elocution and exactitude of knowledge, attracted immense audiences, so that the large amphitheatre of the Faculty failed to accommodate them. He became exceedingly popular with the students, whose interests he had always greatly at heart, and having succeeded Rayer as Dean of the Faculty, all seemed proceeding in the most favourable manner, when a catastrophe arrested all progress in this direction. About 1865, several of the Paris students had taken part at a revolutionary meeting of Belgian students held at Ghent, and on their return were visited by expulsion and other severe punishments. This was attributed by them to the influence of Tardieu, who was much attached to the Empire, and took part in its celebrated festivities. As on several occasions during his medico-legal career, on which he had to endure unjust aspersions, he refused to give any explanation of how matters really stood, and he had to bear the brunt of the indignation of the student-world, who now refused to hear the lectures they had before so delighted in, interrupting them with noisy clamour. It now transpires, from a statement of M. Amédée Latour, that so far from Tardieu having urged on the severe and injudicious repressive measures which were adopted, he opposed them, and, in fact, lost his deanship in consequence of the too warm defence of the interests of the students which he offered.

Tardieu's labours in the field of public hygiene were scarcely of less importance than those in legal medicine. One of the founders of the celebrated *Annales d'Hygiène*, and President of the Comité Consultatif d'Hygiène, he became the originator and director of the chief hygienic advances in France, and a writer of numerous articles upon the subject; and his "Dictionnaire d'Hygiene Publique" formed a valuable repertory of all that was known on the subject at the time of its publication. On one occasion his judgment seems to have been at default, for, as one of the Municipal Councillors of the city of Paris, it is said that he prepared a report on the reconstruction of the Hôtel Dieu, in which his complaisance for persons in high positions was somewhat at issue with sound notions on hygiene.

A career so fully employed would seem to leave little time for aught else, but Tardieu had long enjoyed a very considerable consultative practice among the upper classes. And, in fact, he commenced as a clinical professor, his lectures, until interrupted by other avocations, giving great satisfaction; and the "Manuel de Pathologie Interne," published at this early period, has always been regarded as a model of its kind, and successive editions are still published. That he got through so much arose from a surprising aptitude for work and power of assimilating knowledge, so that his acquirements become encyclopædial; and this, joined to his remarkable power of exposition and facile elocution, enabled him to fill with such distinction the various posts he was called to. Of polished manners and an amiable disposition, he secured numerous friends, and was in fact fond of society, which he frequented greatly. It may seem strange that a man who had so long enjoyed such high renown, and filled so many important posts, should yet have died poor; but from the testimony of all it seems that his generosity amounted to prodigality: he never knew how to refuse, the value of money seeming positively unknown to him.

Tardieu never produced a complete treatise on legal medicine, but his contributions to the various subjects comprised within its sphere were numerous indeed, and some of his monographs (as his "Attentat aux Mœurs, Etude sur les Avortements," etc.) have gone through several editions. His "Etude sur les Blessures" has appeared in the present year. Perhaps his most important work is his "Traité sur les Empoisonnements," which has gone through two editions, in which he endeavoured to treat the subject from a clinical point of view. "I beg of my pupils and colleagues," he says in his preface, "not to expect in this work either a dogmatic treatise or a didactic history of a special science; but to regard it as a clinical study of accidental diseases generally but little known, and a chapter of legal medicine, the importance of which justifies its length, and in which is investigated, from a practical point of view, one of the most redoubtable kinds of violent death—a crime which justice would be unable to reach without the aid of science." "This work," an anonymous writer in the *Gazette Hebdomadaire* observes, "contains new ideas on the search for poisons, and is a kind of reaction against some of the principles of Orfila. While the latter especially engaged himself in chemical investigations and the material demonstration of the poisoning, Tardieu showed that in numerous cases, and especially in poisoning by the vegetable alkaloids, when chemical researches may be attended by no results, another road is open to the medical expert in the study of symptomatology. By inducing in animals, by aid of matters obtained from the suspected organs, accidents similar to those that have caused the death of the victim, we may be able to arrive at the cause of poisoning, even when all chemical investigations have proved sterile."

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 6:—

Pegge, William Joseph, Newton-heath, Manchester.
Vores, Arthur, Great Yarmouth.

The following gentleman also on the same day passed his Primary Professional Examination:—

Sweeting, Richard Deane Roker, London Hospital.

APPOINTMENTS.

COLENSO, ROBERT JOHN, M.A. Oxon, M.R.C.S. Eng.—House-Surgeon to the Windsor Royal Infirmary.

MOORE, J. WESTWOOD, M.R.C.S. Eng.—House-Surgeon to the West Bromwich District Hospital, *vice* B. M. Rowe, resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

WAR OFFICE.—Surgeon-General John Fraser, M.D., C.B., Honorary Physician to her Majesty, is placed on retired pay; Surgeon-Major William Langford Farmer retires upon temporary half-pay.

BIRTHS.

BARLOW.—On February 10, at Norfolk House, Albion-road, Dalston, the wife of Robert Barlow, M.R.C.S. Eng., of a daughter.

BODY.—On February 4, at Crediton, Devon, the wife of H. Marten Body, M.R.C.S., prematurely, of a son.

COKE.—On February 5, at Ashford, Kent, the wife of William Harriott Coke, L.R.C.P. Lond., M.R.C.S. Eng., of a son.

HAMILTON.—On February 7, at 30, Northampton-park, Canonbury, the wife of Thomas Hamilton, M.B., F.R.C.S.E., of a son.

HOPKINS.—On February 7, at 88, Highbury New-park, the wife of Alfred Boyd Hopkins, M.R.C.S. Eng., of a son.

MURRAY.—On February 8, at Meadowside, Putney, the wife of G. Stanley Murray, M.D., of a son.

O'BRIEN.—On December 26, at Malabar-hill, Bombay, the wife of Surgeon-Major T. M. O'Brien, L.R.C.S.I., of a son, stillborn.

ORMEROD.—On February 8, at 25, Upper Wimpole-street, Cavendish-square, the wife of Joseph Arderne Ormerod, M.B. Oxon., of a son.

PAGE.—On February 4, at 28, New Cavendish-street, W., the wife of Herbert William Page, M.C., M.B., of a daughter.

SYMES.—On February 4, at Ward's-end, Halifax, the wife of Edmond West Symes, M.D., of a daughter.

THURSTAN.—On February 4, at Claremont, Ore, near Hastings, the wife of E. Paget Thurstan, M.B., of a daughter.

WATNEY.—On February 9, at 1, Wilton-crescent, the wife of Herbert Watney, M.D., of a daughter.

MARRIAGES.

COOKE—PECHELL.—On February 5, at St. George's, Hanover-square, Edward Marriott Cooke, M.B., Medical Superintendent, Wilts County Asylum, to Mary Anne Henrietta, fourth daughter of Sir George Brooke Pechell, Bt., of Alton House, Alton, Hants.

LOW—STANDRING.—On February 11, at Lee, Frank Harrison Low, M.B., M.R.C.S., of Thames Ditton, Surrey, to Fanny Grace, elder daughter of John Standring, Esq., of Decre House, Lee, Kent.

DEATHS.

BEANEY.—At Clifton, Bristol, the wife of James George Beaney, F.R.C.S.E., L.K.Q.C.P.I., of Collins-street, Melbourne, Australia, on February 5.

RAYNER, FLORENCE STELLA, daughter of John Rayner, M.D., of Swaledale House, Highbury-quadrant, N., on February 8, aged 7 weeks.

ROBERTS, HELEN OGILVY, wife of W. A. Roberts, M.D., at 47, Queen-street, Edinburgh, on February 3.

RODEN, CLARA, wife of S. S. Roden, M.D., at Clarendon House, Droitwich, on February 5.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

RICHMOND INFIRMARY.—House-Surgeon. Candidates must possess a medical and surgical qualification and be registered under the Medical Act. Applications, with copies of (not more than six) testimonials, to the Secretary, the Infirmary, Richmond, Surrey, on or before February 15, from whom any further information may be obtained.

ROYAL ALBERT ASYLUM FOR IDIOTS AND IMBECILES OF THE NORTHERN COUNTIES, LANCASTER.—Assistant Medical Officer. Candidates must possess registered qualifications in medicine and surgery, and be unmarried. Applications, stating age and qualifications, with testimonials, to Dr. Shuttleworth, Medical Superintendent at the Asylum, on or before February 18.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Applications, with testimonials, to the Hon. Secretary, Tiverton.

WEST LONDON HOSPITAL, HAMMERSMITH-ROAD, W.—Assistant-Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, and not practising as apothecaries. Applications, with testimonials, to be sent in on or before February 18.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population in computed according to the census of 1871.

RESIGNATIONS.

Leeds Union.—Dr. Wales has resigned the office of Assistant Medical Officer at the Workhouse; salary £100 per annum.

Sunderland Union.—The Sunderland District is vacant; area 178; population 16,867; salary £100 per annum.

Tenterden Union.—Mr. C. S. Heap has resigned the Biddenden District; area 7201; population 1419; salary £40 per annum. Also the High Halden District; area 3729; population 689; salary £15 15s. per annum.

APPOINTMENTS.

Birmingham Parish.—Edward H. O'Leary, L.R.C.S. Ire., L.K.&Q.C.P. Ire., to the Third District.

Bury Union.—John Telford, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Pilkington District.

Kington Union.—Richard Harding, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Radnor District.

Toxteth Park Township.—Mark A. Macdonnell, M.D., M.Ch. Queen's Univ. Ire., to the First District.

Tynemouth Union.—Robert Buttercase, B.M. and M.C. Glasg., to the North Longbenton District.

Wandsworth and Clapham Union.—James Allan, M.B. and C.M. Univ. Aber., as Assistant Medical Officer and Dispenser at the Workhouse and Infirmary.

RELAPSE OF A FIBRO-PLASTIC TUMOUR AFTER FOURTEEN YEARS.—Prof. Verneuil related to his class this case, which occurred in his private practice, in order to demonstrate the tenacity of an apparently insignificant local lesion, which, after remaining so long without reappearing, then exhibited itself again in the midst of the most flourishing health. It shows how reserved should be our belief in a truly radical cure of tumours which are yet of a benign nature. In 1860, a man of good constitution fell from his horse and bruised the dorsal region against a stone. In a few days he was all right, and the matter was forgotten, when the patient observed an induration on the bruised part, which continued making progress eighteen months after the accident. The tumour thus formed was removed, and was found to consist in a simple thickening of the skin. Cicatrisation was not quite complete when the periphery of the wound assumed an equivocal colour, manifesting a relapse. In 1863 this had reached a considerable extent, forming a fibro-plastic plate projecting above the level of the skin. This was removed by a large incision so as to embrace a space of at least three centimetres beyond the edges of the tumour. In three or four months the wound had healed, the cicatrix, however, resembling a nævus-maternus in appearance. The cure persisted from 1863 to 1877, when a small projection of the skin was formed, with a slight induration. It was in fact a second relapse of the fibro-plastic tumour, which has again been removed.—*Gaz. des Hop.*, February 4.

TESTIMONIAL IN MEMORY OF THE LATE MR. JAMES STOCKER.—The following letter has been addressed by Sir William Gull, Bart., to the Editor of *Guy's Hospital Gazette*. It well expresses the respect with which Mr. Stocker was regarded by the past students of Guy's Hospital, and indicates the form which the testimonial will now assume. Subscriptions will be received by R. C. Lucas, B.S., 4, St. Thomas's-street, S.E.; and H. E. Waddy, Esq., 2, Clarence-street, Gloucester:—"To the Editor of the *Guy's Hospital Gazette*.—Sir,—I shall be much obliged if you will allow me in a few words to record my feeling of affectionate regard to the memory of the late Mr. James Stocker. Mr. Stocker's name has been associated with the Medical School of Guy's Hospital for nearly fifty years. He was a gentleman of singular purity of feeling, and by the integrity of his life, and his devotion to the interests of Guy's, deserved and obtained the sincere regard of the many hundreds of students who have passed through our school. There are many, and myself among the number, who owe much to the friendly advice and direction Mr. Stocker was ever ready to give to the student. Although he took no formal part in the teaching of medicine or surgery, he largely contributed by his experience to enforce the best lessons of the lecture-room, and by the simplicity of his life, and his deep sense of the high aims of our profession, he afforded an example which all who had the pleasure of knowing him will recall with unmingled satisfaction. Some time before Mr. Stocker's decease, a movement was begun for presenting him with a testimonial expressive of the feelings I now record. I cannot doubt that this movement will be so continued and extended as to become a substantial proof, to Mrs. Stocker and her children, that he whose loss they have to mourn, and whose substantial aid, as father of the family, they now lose, has left behind him a memory that many desire to honour. Mrs. Stocker has unfortunately long been a helpless invalid, and two of the children have such weak health as not to be able with any success to fight the battle of life. Mr. Stocker was happily able to make for them a moderate provision, but I cannot doubt that the testimonial in question, though chiefly valued as an honour, will yet be very useful as a substantial addition to income at a time when all expenses are so great.—I am, yours truly, WILLIAM W. GULL."

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—A meeting in connexion with the Yorkshire Association of Medical Officers of Health was recently held at Huddersfield, Mr. G. W. North, of York, presiding. Before commencing proceedings a number of the members were taken by the Mayor and Dr. J. Spottiswoode Cameron, of Huddersfield, to visit the sewage factory and manure depôt, and the local fever hospital for isolating patients; and later on they inspected the Corporation Waterworks at Blackmoor-foot. After the routine business of the meeting was concluded, Dr. J. Spottiswoode Cameron read a paper on the working of the clause in the Huddersfield Local Act of

1876, providing for the notification to the sanitary authority of certain cases of infectious disease, the result of which he summarised as eminently satisfactory as far as at present carried out, though he looked for the time when extended power would be granted by the Legislature of the country to all sanitary authorities. During the discussion which followed the reading of this paper, Dr. Britton, of Halifax, admitted that he came there a determined opponent of compulsory registration of infectious diseases, but, after reading the sensible clause referred to in the Huddersfield Improvement Act, he had come to the conclusion that a certain amount of compulsory registration would be attended with much advantage. The Corporation had evidently understood the feelings of the medical men and of the public, and they had reduced to a minimum the objection of medical men to the clause. In the Huddersfield Fever Hospital 222 cases had been isolated, and the probability was that this had saved the town 1000 cases of disease. He certainly thought the system which was in operation in Huddersfield was worth a trial. The usual votes of thanks were proposed, and in the evening the members of the Association dined together.

CANTOR LECTURES.—Dr. W. H. Corfield's course of six lectures on "Dwelling-Houses: their Sanitary Construction and Arrangements," will be delivered at the Society of Arts, John-street, Adelphi, at eight o'clock on Monday evenings, commencing on Monday next, February 17. The first lecture will be on "Situation and Structure of the House"; and the succeeding lectures will treat of "Ventilation, Warming, and Lighting," "Water-Supply," "Removal of Refuse Matters," "Sewerage," and "Water-Closets, Sinks, and Baths." The course will be illustrated by specimens and models from the Parkes Museum of Hygiene.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. W. J. Branch.—Received with thanks.

Dangerous Toys.—A case of serious injury from a "catapult" has just occurred at Torrington, North Devon. A postman, while on his rounds delivering letters, has had one of his eyes destroyed by a small stone discharged from a catapult by a boy, and is a patient in the Barnstaple Infirmary. An order has now been issued—"better late than never"—by the Mayor of Torrington, cautioning persons against using the catapult.

Publicans and Coffee Taverns.—In the annual report of the Licensed Victuallers' Defence Association, attention is drawn to the rivalry of the coffee and cocoa taverns. It recommends licensed victuallers "to give sitting accommodation away from their bars, and to provide eatables non-intoxicants, and newspapers" for their customers, in addition to stimulants. There is no doubt the sale of coffee, cocoa, and other non-intoxicating beverages is a profitable business. The recommendation referred to emanates from persons competent to advise on the question; its adoption, therefore, would be a politic protective step, and its salutary result a public advantage and benefit. The coffee taverns movement practically deals with a gigantic vice, and its rapid extension and success throughout the kingdom are undeniably satisfactory.

F. G. H.—Are the following lines appropriate?—

"In the woods of the North there are insects that prey
On the brain of the elk till his very last sigh.
Oh, Genius, thy patrons, more cruel than they,
First feed on thy brains, and then leave thee to die!"

The Afghan War: Services Honourably Recognised.—Major-General Roberts, C.B., in his official despatch to the Governor-General of India, states, in reference to services rendered by the departmental and staff officers:—"Dr. Allen, C.B., Deputy Surgeon-General, has bestowed great attention on the arrangements for the proper care and treatment of our sick and wounded. His exertions have been successful, and I am much indebted to him for the efficient condition in which the hospitals have been maintained."

Erecting Dwellings over a Rubbish-Heap.—The Poplar Board of Works called the attention of the Metropolitan Board of Works, a short time ago, to an attempt to utilise some land in the vicinity of White Post-lane, Hackney-wick, for building purposes. This land until lately had been used as a rubbish shoot. At a recent meeting of the Poplar Board the chairman announced that their representation had been successful; the Metropolitan Board, under the powers of the Buildings Amendment Act of last session, had refused permission to build on the land. The prompt and timely intervention of the Poplar Board is highly commendable, and the result satisfactory.

Sanitary Schemes and Works.—With reference to the application of the Featherstone (Yorkshire) Local Board of Health to the Local Government Board for sanction to borrow £7000 for the execution of sewerage works for three of the townships within their district, Mr. John Thornhill Harrison, the inspector, has held an inquiry, and, notwithstanding the strong opposition to the application, the inspector has reported favourably on the scheme to the Local Government Board. At Yardley, Birmingham, the Solihull Rural Sanitary Authority has resolved that the cost of the structural works at Cole Hall and Acocks Green, and the additional sewerage required in Yardley village, form part of the application to the Local Government Board for £20,000. The amount already borrowed for works is £25,000. The Camborne Local Board have decided to construct a system of sewerage for the town at a cost of £3302. Dundee has now more water than any other town in Scotland per head. Up to 1854 the town was merely supplied by public wells and water-carts. Then the supply was obtained from Newport on the Fife side of the Tay. The Lintrathen scheme supplied far more water than Dundee was likely to require for many years to come. The works at present give the town 8,000,000 gallons a day, and provisions have been made for laying down another pipe, which would double the supply—a wise provision in case of accident to the existing pipes for the conduct of the water. The cost of the works, exclusive of the price of land, has been £210,000. The Committee of the Lower Thames Valley Main Sewerage Board have sent out a circular to all the sanitary authorities of which the Board is composed, asking for their opinion as to the adoption of the "separate system" in their future drainage operations.

The Improved Industrial Dwellings Company.—This Company now possesses twenty-six estates in various parts of the metropolis, on which 2360 dwellings have been erected and are in occupation, 351 are in course of erection, and 300 will shortly be commenced, making a total of 3520 tenements. When these are completed, the number of persons who can be provided with dwellings belonging to the Company will be about seven thousand.

A New Coffee Adulterant.—In the recent annual report of the Principal of the Inland Revenue Laboratory, some observations are made on a new method of adulterating coffee, which has lately been detected. The adulterant in question consists of date-stones, which, after being roasted and ground, form such an imitation of coffee as would, when mixed with the genuine article, easily deceive the consumer. Information received by the Inland Revenue authorities at Somerset House from a supervisor at Liverpool has led to an early discovery and suppression by the Somerset House authorities of this new mode of adulteration. Many tons of date-stones (a refuse from the manufacture of spirits at a distillery in Liverpool, and which had hitherto been considered useless) were being bought by a foreigner to be forwarded to Manchester, and supposed to be intended as an adulterant of coffee. It was subsequently ascertained that a manufactory had been established in that city for the preparation of "Melilotine coffee"—a mixture of coffee, chicory, and date-stones. Of this "Melilotine coffee" and of the prepared date-stones several tons had been seized. The early detection of this adulterant has prevented the consumption of any large quantity of the "coffee."

Pauper Imbeciles and Musical Instruments.—The Clerk of the Chesterfield Board of Guardians reported last week to the Board that he had, in accordance with his instructions, written to the Local Government Board, inquiring if the Guardians had power to purchase, out of the rates, musical instruments, books, and other means of entertainment for the imbeciles, and the Local Government Board had replied that as music had such a tranquillising effect upon the imbeciles, and as means of entertainment might be regarded as curative agencies, they had a power to expend a reasonable sum upon such things.

"Speculative Building."—A builder of Lewisham was summoned at the Greenwich Police-court, to show cause why an order should not be made compelling him to pull down three houses which he had built, but which were alleged to be dangerous structures. The defendant had built in six weeks a block of six houses, three of which fell down; and the district surveyor now said the construction and materials of the others were so bad that they were also likely to fall, and ought to be pulled down. The evidence for the defence was to the effect that the materials of the houses were good enough for "speculative buildings." The magistrate made the order required.

COMMUNICATIONS have been received from—

Mr. W. E. POOLE, London; Mr. JOHN CHATTO, London; Dr. J. MATTHEWS DUNCAN, London; Mr. D. COLQUHOUN, London; Mr. B. R. WHEATLEY, London; Dr. STEPHEN MACKENZIE, London; Mr. T. M. STOWE, London; Dr. J. S. CAMERON, Huddersfield; Mr. W. SPENCER WATSON, London; THE REGISTRAR OF APOTHECARIES' HALL, London; THE SECRETARY OF THE METROPOLITAN FREE HOSPITAL; Dr. SEMPLE, London; Dr. WOLFE, Glasgow; Dr. ROBERT LAWSON, Edinburgh; Dr. EDWARD I. SPARKS, Mentone; Dr. JAMES ARNOTT, London; THE HONORARY SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY; THE MILITARY SECRETARY, India Office; Mr. EDWARD BELLAMY, London; Messrs. SYMES and Co., Liverpool; Mr. R. J. GODLEE, London; THE HONORARY SECRETARY OF THE ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY; Mr. HENRY CARR, London; THE SECRETARY OF THE MANCHESTER MEDICO-ETHICAL SOCIETY; Dr. A. STIRLING, London; THE REGISTRAR-GENERAL, Edinburgh; Mr. J. CANTLIE, London; Dr. J. W. MOORE, Dublin; Dr. J. HUGHLINGS-JACKSON, London; THE SECRETARY OF THE STATISTICAL SOCIETY; Dr. J. R. BENNETT, London; Prof. HUMPHRY, Cambridge.

BOOKS AND PAMPHLETS RECEIVED—

James L. Bryden, M.D., Surgeon-Major Bengal Army, Annual Returns of the European Army of India and of the Native Army and Gaol Population of the Bengal Presidency, 1871 to 1876; Reports bringing up the Statistical History of the European Army in India, and of the Native Army and Gaol Population of Bengal to 1876—Arthur Ransome, M.D., M.A., Long Life and the Causes that Prevent it—Henry Morris, M.A., M.B. Lond., F.R.C.S., The Anatomy of the Joints of Man—Transactions of the American Ophthalmological Society—Joliffe Tufnell, M.R.I.A., The Consolidation of Internal Aneurism—Benjamin Ward Richardson, M.D., F.R.S., A Ministry of Health.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—El Siglo Médico—Révue Médicale Française et Etrangère—American Journal of Otology—Night and Day—Gazeta Medica da Bahia—Physician and Surgeon—Journal des Sciences Médicales de Lille—Practitioner—Journal of Anatomy and Physiology—Gazzetta Medica Italiana—Boston Journal of Chemistry—Saint Louis Medical and Surgical Journal—Cincinnati Lancet and Clinic—House and Home—American Practitioner.

APPOINTMENTS FOR THE WEEK.

February 15. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Mr. Reginald W. Macan, "On Lessing."

17. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Lennox Browne, "Clinical Observations on Laryngeal Stenosis." Dr. Drysdale, "On Syphilitic Urethritis."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

18. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Report by the Morbid Growths Committee on Dr. Hoggan's Sections of the Skin in Leprosy. Dr. Greenfield (for Dr. Sandby)—Hypertrophic Cirrhosis of the Liver. Mr. A. Doran—Perforating Ulcer of Intestine after Ovariotomy. Sir J. Fayrer—Specimens of Elephantiasis Arabum, Simple and Neevoid. Dr. Barlow—Skulls from a Case of Congenital Syphilis. Mr. Amphlett—Specimen of Single Kidney. Dr. P. Irvine—Horse-shoe Kidney. Mr. Gay—Two Blood Cysts and a Mucous Cyst removed from the Knee. Mr. Davies-Colley—1. A Peculiar Affection of the Epidermis of the Palms and Soles; 2. Malformations and Disease of the Ureter and Bladder of a Female Child. Mr. Macarthy—Cancer of the Œsophagus. Dr. Samuel West—Perforation of the Lung from a Case of Pneumothorax. Mr. Royes Bell—Molluscum Fibrosum (a living specimen). And other Specimens.

ROYAL INSTITUTION, 3 p.m. Prof. Schäfer, "On Animal Development."

STATISTICAL SOCIETY, 7½ p.m. Mr. C. Walford, "On the Famines of the World—Past and Present." (Part II.)

19. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY (Council Meeting, 8 p.m.), 8½ p.m. Casual Communications.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

20. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

HARVEIAN SOCIETY, 8½ p.m. Mr. Lennox Browne, "On Chronic Abscess of the Antrum." Mr. Cripps Lawrence, "On Intermittent Bronchopneumonia."

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Sound."

21. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 3 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

ROYAL INSTITUTION (Weekly Meeting, 8 p.m.), 9 p.m. Prof. Roscoe, "On a New Chemical Industry."

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 7½ p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, Feb. 8, 1879.

BIRTHS.

Births of Boys, 1300; Girls, 1367; Total, 2667.
Average of 10 corresponding years 1869-78, 2441·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	893	946	1839
Average of the ten years 1869-78	807·9	799·2	1607·1
Average corrected to increased population ...	...	...	1720
Deaths of people aged 80 and upwards ...	...	...	112

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	4	3	10	...	9	...	...	...	4
North ...	751729	1	1	6	5	13	1	5	...	1
Central ...	334360	...	2	2	2	...	...	2	...	...
East	639111	...	...	3	2	14	...	3	...	3
South	967692	13	7	17	2	12	2	6	1	5
Total	3254260	17	13	38	11	47	3	16	1	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·492 in.
Mean temperature	39·8°
Highest point of thermometer	52·2°
Lowest point of thermometer	29·5°
Mean dew-point temperature	36·7°
General direction of wind	N.E. & S.W.
Whole amount of rain in the week	0·85 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 8, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Feb. 8.	Deaths Registered during the week ending Feb. 8.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2667	1839	52·2	29·5	39·8	4·34	0·85	2·16
Brighton	105608	44·9	56	60	49·2	31·6	39·3	4·06	1·21	3·07
Portsmouth ...	131821	29·4	86	60	...	...	...	...	...	...
Norwich	85222	11·4	54	41	51·0	27·8	38·3	3·50	0·30	0·76
Plymouth	74293	53·3	42	33	52·5	33·0	43·7	6·50	1·67	4·24
Bristol	209947	47·2	144	102	52·7	29·3	41·0	5·00	1·03	2·62
Wolverhampton ...	75100	22·1	63	52	47·8	24·6	35·4	1·89	0·73	1·85
Birmingham ...	388884	46·3	313	226	...	...	...	...	...	...
Leicester	125622	39·3	91	53	51·0	31·8	38·2	3·44	0·92	2·34
Nottingham ...	169396	17·0	100	72	50·9	25·6	36·0	2·22	0·67	1·70
Liverpool	538338	103·3	436	426	49·0	31·6	38·9	3·83	0·71	1·80
Manchester ...	361819	84·3	270	280	...	...	...	...	...	...
Salford	177849	34·4	171	129	...	...	...	...	...	...
Oldham	111318	23·9	74	63	...	...	...	...	...	...
Bradford	191046	26·5	144	96	47·8	25·0	35·8	2·12	0·89	2·26
Leeds	311860	14·5	230	158	49·0	27·0	36·8	2·67	0·71	1·80
Sheffield	297139	15·1	206	128	49·0	25·0	36·6	2·56	1·75	4·44
Hull	146347	40·3	112	78	49·0	28·0	36·6	2·56	1·60	4·06
Sunderland ...	114575	41·4	95	56	49·0	29·0	37·3	2·95	0·35	0·89
Newcastle-on-Tyne	146948	27·4	97	63	...	...	...	...	...	...
Edinburgh	226075	53·9	135	120	49·4	28·5	37·5	3·06	0·60	1·52
Glasgow	578158	95·8	354	297	48·7	30·0	38·9	3·83	0·54	1·37
Dublin	314666	31·3	211	302	55·7	29·8	42·9	6·06	1·79	4·55
Total of 23 Towns in United Kingdom	8502896	38·6	5151	4734	55·7	24·6	38·4	3·55	0·96	2·44

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·49 in. The highest reading was 29·90 in. on Tuesday evening, and the lowest 29·09 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

THE HUNTERIAN ORATION.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS,
February 14, 1879.

By G. MURRAY HUMPHRY, M.D. Cantab., F.R.S.,
Professor of Anatomy in the University of Cambridge.

MR. PRESIDENT, MY LORDS, AND GENTLEMEN,—The best memorials of the dead are undoubtedly those which do most good to the living; and the purpose of this Oration, I conceive, is not simply to honour Hunter, but, still more, to inspire and rouse succeeding generations of surgeons by reminding them, from time to time, of the salient points of his character, and to endeavour so to fan the fire of his example that it may burn more and more steadily and brightly, and may warm us and others to nobler and better work. What could Hunter have more desired than that his memory should be an abiding influence, inducing his followers to appreciate and utilise the stores which he has left? What more suitable supplement to them could be made than a provision for some, even the humblest, effort to awaken his spirit among the custodians of his treasure; and where can that spirit be better invoked than in the resting-place of the works among which it loved to dwell?

Few lives of those who have taken a prominent place in the world's history were so devoid of incident and so full of lesson, so wanting in romance and so abounding in fact; few in which that which may be called accident played so small a part, and in which the man's own character so largely determined the course and events; and, for this reason, few are so well suited for example and instruction as that of him in whose memory we are met to-day.

Sprung from those northern tenants of our island who are inferior to no branch of the human stock in calm, firm thinking capacity, and corresponding steadiness of purpose and strength of body; a member of a family which gave evidence of being no mean example of its race—John Hunter spent his earlier years in a manner calculated to promote manual dexterity and bodily strength rather than mental culture; and not till the age of twenty did he apply himself to the calling of his life. By many this would be thought late, too late; but I am disposed to believe that it is about the very best age for entering upon a professional career—a career, that is, which demands the full exercise of the mental faculties. It is the time of life when the mind, though retaining suppleness and impressibility, has acquired sufficient firmness to resist falsities and sufficient strength and independence to guide itself aright, and when it is likely to enter upon a new work with rational confidence and determination, not as a plaything to be toyed with, but as a business to be seriously set about and perseveringly followed. It is no small advantage that the calling of life should be, from the first, regarded in this light and commenced in this manner—an advantage which more than compensates for the supposed, and possibly real, benefits of an earlier initiation. There can be no doubt that the medical profession has suffered in quality and status, as well as in practical outcome, from being commenced, in many instances, by lads who had not only an insufficient mental training, but who had not the solidity of character and the tone of thought which should be present in those whose business it is to seek amid the chambers of death for the means of fortifying and prolonging life.

Once definitely devoted to his work, Hunter stuck to it with unrelaxing tenacity for five-and-forty years; and, when the silver cord was suddenly loosed, he was cut off, as a mind still vigorous and a body in most respects also vigorous should be, in the thick of work, full of plans for the future which involved yet more labour, the hardest of all, the labour of gathering up the threads of the past, and weaving them into a consistent texture. How many have thus passed away full of intentions for summing up life's efforts and of arranging in one comprehensive whole the fragments of their work! To how many in the evening of an industrious day has the aspiration to accomplish this task given an interest and occupation, and has, so worthily and happily, filled that interlude between life's activity and death's advent which is apt to be spent in restless search after rest, and in fruitless efforts to satisfy the long nurtured expectations of the time when the hotter periods of life's fretful fever should be over, and the anticipated real enjoyment, which is thought to be associated with cessation from activity, might begin!

That the neglect of early education, a main element in which is subordination to the will of others with associated mental and moral discipline, threw some shadow over Hunter's life, there can be no doubt; but this loss may have had its more or less compensating gain in giving freedom to that ardent spirit of inquiry, that independence of observation, and that originality of thought, which formed such important features of his character—features the checking of which is a too frequent penalty of drill and systematic education.

Rarely, at any rate, can so good an account be given of five-and-forty years of a human life, of so much work done, of so much thought gone through, of so much result attained. The students of his museum and his works—and we all are such—are sufficiently impressed with this, and there is no need for me to dilate upon it. I would rather try to take some hints from the character and method of him who thus well employed his time, some hints for our guidance at this important period of medical education and advancing science.

A meditation upon the life and work and writings of Hunter always leaves the mind imbued with a sense of two salient, all-pervading features, which may be expressed by the words "work" and "thought," or "observation" and "reflection."

These two factors, it need scarcely be said, lie at the root of all success in science. It is not, however, the amount, enormous as it is, so much as the well-adjusted balance of these two in Hunter that impresses us and by which we feel that his great results were achieved. He was not a genius in that which is the ordinary, if not the proper, acceptation of the term—in the sense, that is, which implies an unusual aptitude or faculty for certain things, and which is commonly associated with a proportionate inaptitude for some others; but he possessed in a marked degree that combination of sterling qualities which give sureness and success to effort. The vast collection in the adjoining rooms is an evidence of his working power and his indefatigable industry, and it shows that he was unrivalled in the *τέχνη*, the skill, required for the work; and the remnant of the no less vast pile of manuscripts which accompanied it, shows, as indeed do the specimens themselves, the *σοφία*, the strength of thought that was associated with and directed the work. To have made such a museum is one of the greatest of human achievements; to have thought carefully and well upon every specimen in it is far more, it is one of the greatest of human glories. We prize that museum, not merely as a mine of wealth in facts, but even more as an example and a lesson of thought upon facts and of the relation which one should have to the other.

Of the kind of genius to which has been attributed the privilege of instinctively distinguishing truth from error, or which we may rather say has been masked by that attribute, for it is simply the genius of painstaking—"the transcendent capacity for taking trouble"—with its attendant soundness of judgment, the combination of greatness in detail with greatness in summation, Hunter was an eminent example. It was not in his nature to throw out bold suggestions and sparkling ideas which glitter from afar, and attract the eye and stimulate the aspirations, and carry men away, and which may either prove *ignes fatui* or may be beacons along the high road of truth, and which may, accordingly, lure us much astray or may startle us with the impulse of great discovery. He was rather a steady, laborious pioneer, who so well laid the paths over a large amount of district, that others could safely follow and could learn from his method how to make further sure advance. He did not so much shape the polished corners of the temple of science as lay those solid stones which are of such manner as not to be thrown down, and upon which the edifice may be securely built; and he gathered the materials as well as placed them together. He does not captivate by his enthusiasm or charm by his eloquence. He makes no hyperbolic statements, and indulges in no fervid imagination. He was influenced by no *odium theologium* or *anti-theologium*, was actuated by no ambition, by no love of lucre or thirst for applause, but simply, quietly, observingly and thoughtfully, plodded along the road of search for truth

It needs very little acquaintance with Hunter's works to recognise the two features to which I have alluded, for they are manifested by them all; and we soon perceive that the well-balanced proportion of pure work and strong thought which he everywhere displays was the basis of his success and of the influence which he has exerted. He rarely makes an observation which does not lead to a reflection; and rarely makes a reflection which is not founded upon an observation, or which does not lead to one. His investigations evince a large amount of the *methodus*, the *ordo et processus* of Bacon, and a minimum of the *vaga experientia se tantum sequens*, which, as that philosopher forcibly expresses it, *mera palpatio est, et homines potius stupefacit quam informat*. He was essentially given to matter of fact, and was no less essentially a lover of theory; and his facts and his theories were in due relation to one another. Few men have worked more and made more experiments; few have thought more; and in fewer still has the balance between so large an amount of work and so large an amount of thought been, through life, so well maintained. In few has reflection been so greatly the incentive to observation, and has observation furnished the stimulus to, and the material for, reflection. This importunate double, or rather reciprocating necessity to feed his thought with facts, and to enliven and anneal his facts with thought, shows itself in his letters—his letters to Jenner are full of it—in his lectures, in his essays, and in his museum; and this it was that kept alight that lamp of zeal and industry which never ceased to burn steadily before the altar of science. His thoughts were not directed much to the work and observations of others, but were chiefly centred on his own; and his observations were not stimulated by the suggestions of others, but were almost exclusively the result of the promptings of his own reflections. Indeed his own work and his own thought found ample material for each other. Hence his writings remain to the present day a repertory of fact and thought, the greatest and most valuable that surgery has ever had.

True, the railway rate of progress in other things has not been without its counterpart in surgery, which has been almost revolutionised, and vastly improved, by subcutaneous sections, by excisions, by better treatment of wounds antiseptically and otherwise, by the introduction of anæsthetics and gentler methods suited to a more sensitive age, by auscultation and other means of acquiring more accurate data, as well as by views respecting embolism, vascular inhibition and stimulation, cell formation and emigration, and the many results obtained from microscopical, chemical, and physiological investigation, and, above all, by more conservative treatment and greater attention to sanitary precautions. And here I cannot forbear to mention that crowning triumph of surgery with which the names of Spencer Wells and Keith will ever be honourably associated, and which far exceeds all its predecessors. The record recently given of forty-four unselected cases in succession, some apparently desperate, in which the operation of ovariotomy was successfully performed, is, without question, the grandest in the history of surgery. Many of us have lived through the period in which this operation has made its way, in spite of the denunciations of the highest authorities, and has attained to such results as to make us thankful to have reached the time in which woman is thus relieved from one of her gravest maladies. It makes us more than ever proud of our calling, and illimitably hopeful of the future powers of surgery to bring relief to the sufferings of mankind.

Still, the pride of modern research and boasted intelligence is humbled by a short conference with Hunter's writings, where the observed facts are so many, and often yet so new; where the reasonings are so fresh and so sound; and, above all, where the philosophic blending of fact and thought is so striking, so masterly, and so all-pervading, that as mines of material as well as models of thinking, as examples how to dig and how to use the treasure—in short, as media of real instruction—they are still paramount. I never turn to his "Principles of Surgery" without a renewal of the feeling that it is the most comprehensive, the most philosophic, and the best exposition of the subject ever yet written, the work which it is the most profitable to read; the one which, more than any other, carries us, above craft and technical details, into the region of principles and general laws. Would that it was more studied by ourselves, and more commended to those whom we teach and examine!

Hunter's mind, it is true, was not cast in the same mould as those of Socrates and Plato, of Bacon and Locke. He was not given to a philosophy developed in dialectic word-play, to the theories of schoolmen, or to the exercises of abstract reasoning. Hence it has been felt by some that the reasoning faculty in him was not equal to that of observing. To admit this to some extent is, I suppose, only to admit that he was moulded according to the proper—at any rate, for scientific purposes—the most practically potential human type; for in man the observing must, or should, always precede and furnish the data for, and so be the basis of, even if it does not exceed, the thinking. Thinking is kept in legitimate bounds only by the often-repeated checks of observing; and its frequent resort and ready submission to such checks is an evidence of that control wherein the correctness and strength of thought chiefly consists. Herein, in the well maintained and mutually controlling relation between thought and observation, was the secret of Hunter's power. It was the hair-lock upon which his Samson's strength depended. It was not by observation and experiment, great as was the range and excellence of these, so much as by the manner in which he used them to regulate his reason, that he laid the foundations of modern surgery, and gave us cause to honour him this day, and to strive to follow him—to follow, that is, his method, for follow him we cannot. He did what no one since his time could venture to attempt—what, indeed, his own researches, by widening the range of the sciences over which he travelled, have forbid others to aspire to. He took the whole subject of *Life* within his grasp, and strove to investigate and illustrate, if not to understand, it by phenomena observed and reflected upon, in the vegetable and animal world, past and present, in health and disease, in variety and reparation.

It was the centre about which his thoughts revolved; and it forms the leading idea in all his works—in his "Principles of Surgery," no less than in his treatises on the blood and other physiological subjects. It is made the connecting link which binds anatomy, physiology, pathology, and surgery inseparably together. No man has taken so large a view of it, and treated it on so grand a scale, and laboured at it in so vast a field. The manner in which it is handled in his writings forms the best illustration of his method; and we may well pause for a moment to consider what were the views upon this greatly contested subject of one who brought so large an amount of observation and experiment, and, not only so much strength, but so much purity of thought to bear upon it, who could contemplate the great problems of matter, force, and life, in the cool altitude of his own quiet sphere of observation and reflection, far above the heated and perturbing arena of controversy, and who could recognise that no evil to man's moral and better nature ever has accrued, or ever can, from the free exercise of the high prerogative of thought, provided it is used in the simple, sincere aspiration for truth.

In no parts of his writings are his penetration, his breadth of conception, and his caution, more strongly manifested than in those which relate to this tempting and difficult subject. He gives no precise definition of life, for he says, "of all things on the face of the earth definitions are the most cursed." With true philosophic spirit he ascends to it, step by step, from a consideration of the simple properties of matter, being conscious that, from them, all our impressions and all our ideas are derived, and perceiving that the knowledge of them must be our guide to the apprehension of it. With regard to them the old notions of spirit influence, rudely shaken by the Father of Medicine, were not likely to be revived by one who could write that, "as the causes and effects of matter seem to be entirely connected with matter itself, and to be a property in and inseparable from it, and, as these are becoming better known, the 'presiding spirits' are every day vanishing, and their authority becoming less."(a) In these few clear words Hunter showed that he had penetrated the mists which hang around the fundamental questions of natural science as much as men have done since his time, that he saw into them about as far as human eye has ever seen, and that he had attained to that which, after a century of further and often angry disputation, we are compelled to regard as being probably the *ne plus ultra* of human knowledge. He recognised the potentiality of matter, and with that economy of thought and that caution which characterise his efforts and were

(a) "Essays and Observations," by Owen, page 8.

among the causes of their large results, he forbore to press the inquiry further into those speculations as to ultimates, those questions as to the origin of matter, and the nature of its properties, respecting which men may dogmatise and quarrel, and hopelessly dogmatise and quarrel on, because they are upon the confines of, if not within the circle of, the unknowable. Into such dark regions, where observation gives no sufficient footing for thought, Hunter did not venture; and so he avoided the pitfalls into which some more reckless adventurers have slipped, and the dreary wastes into which others have wandered.

Whatever, in their essence, these properties, or principles, of matter might be, he considered Life to be one of them or akin to them; and his reasoning about it is highly interesting. He speaks of it, in one place, as "the principle of self-preservation; preventing matter from falling into dissolution," in another, as "an agency leading to new modifications of matter, and procuring those chemical and other combinations which are concerned in the formation and growth of animal and vegetable bodies. These are products which no chemistry will make. Fermentation will resolve them, but will not produce them." He, at one time, speaks of life as producing, at another, as proceeding from, these modifications; but whether he regarded the circle of life as consisting in the producing and the proceeding from, whether he considered that as the *omne vivum* proceeds *ab ovo*, so the *omne ovum* is produced *a vivo*, does not appear. He was perplexed between the views which divide the physiologists of to-day, and which are tersely expressed by him as follows: "Life, then, appears to be something superadded to this peculiar modification of matter; or this modification is so arranged that the principle of life arises out of the arrangement." The principle, he says, can with difficulty be conceived; but he shows that matter may take on new properties without being altered in itself, as to the species of matter, by the illustration of a bar of iron which appears the same whether endued with the properties of magnetism or not, which magnetism does not seem to depend on the formation of any of its parts. "A bar of iron without magnetism may be considered animal matter without life. Set it upright, it acquires a new property, the property of attraction and repulsion, at its different ends. Now, is this any substance added, or is it a certain change which takes place in the arrangement of the particles of iron giving it this property?"

Thus Hunter pondered. He evidently felt that the observed facts were insufficient to enable him to form a right conclusion respecting the nature of life and the relation of the living principle to the ordinary properties of matter; and he was under no temptation to strain his views beyond the horizon which bounded them for the sensation of gratifying some persons and startling and alarming others. Had he lived now, and thought and written with the knowledge that has cumulated since his time, his difficulties would not have been much lessened, and we may hope that his moderation and impartiality would have been what they were. His cool judgment, we may trust, would have told him that science never has afforded, and possibly never will afford, any sure basis from which to carry on either the attack or the defence of religion, and that, while it is the province of the man of science to press inquiry on into the causes of natural phenomena, and to seek the explanation of what passes around us and in us, and to refer these, more and more, to what are called laws, there is yet an ever-receding cause of those laws, and that hence there still are many things which are not, and possibly never will be, in our philosophy. He might have perceived, and perhaps none the less clearly for that increased range of knowledge which would have given him wider view, that it is open to each investigator to feel that there are thoughts very deep, far deeper than our thoughts; and though, to use the expressive words of a living writer:(b)

> "Science, whose soul is explanation, halts
> With hostile front at mystery."

yet her most ardent devotee may freely admit that

> "God moves in a mysterious way,
> His wonders to perform."

Hunter might, with the same breath, have consoled the veriest materialist and the most anxious theologian, and have told both that the field of nature is common ground in which they may dig, and dig fearlessly together, and that it will yield according to the seed with which it is sown.

From the manner in which he speaks of the properties of matter, of the formation of the world, of the production and distinction of vegetables and animals, which he regards as only a new modification, or species, of matter, of the immutability of an absolute existence, etc., it requires no great stretch of imagination to think that his mind was feeling its way towards those doctrines of evolution, correlation of force, and indestructibility of matter and force, which have occupied so large a share of scientific attention in recent times, and which seem to forbid, even in idea, the separation of matter from force or spirit, the finite from the infinite, the changing or temporal from the unchanging or eternal, the created from the creating. Not that I would in the least disparage those who, since his time, have done such good work in this field, or would be ranged among the *laudatores temporis acti*, who find nothing new under the sun, who, gloating in their knowledge of the past, love to contrast the present unfavourably with it, and who, in the generalisations and speculative philosophies of former times, see foreshadowed the discoveries of our own. We, like our predecessors, dream of things that may be, and perhaps will be; and if all the dreams of the present were recorded, such multitudinous combinations of thoughts would surely be found to anticipate some of the views and discoveries of posterity. But such dreams, though they are based upon real thoughts and real knowledge, and are the produce of mental play upon them, are too vapourish and unsubstantial to fix themselves even upon ourselves, or to give a real impetus to anything. No one will class Hunter among the dreamers—he was far from that; but he thought much, and apparently was in the habit of writing down his thoughts as they occurred. Some of these thoughts seem to point in directions which he probably did not contemplate. And as the students of Turner's pictures may discover many things which that great artist never intended to pourtray, so the reader of Hunter may fancy that he sees many things which that great thinker never imagined, or never imagined with the definiteness which would constitute a real idea.

But, it may be said, What good have physiology and reflections upon such abstruse subjects as the phenomena nature, and causes of life, done to surgery? In what way, if at all, are the improvements which have taken place in the knowledge and treatment of disease attributable to the connexion between physiology and surgery, which Hunter established? The direct dependence of the one upon the other may not, it is true, be always easy to show, for those agencies which have the greatest potency are not unfrequently the least apparent. There can, however, be little doubt in any thoughtful mind, that the influence of physiological views, with their associated mental culture, on the progress of surgery during the last century, has been incalculably great, and has done more than anything, not only to pave the way for, but to engender, truer conceptions of disease, and better modes of treatment, and has, so, contributed vastly to elevate the tone and status of the profession, and to promote the welfare of mankind. Though we may not be able to trace the several improvements directly to the suggestions of physiology, we may be certain that many of them would not have taken place without it. Even in the case of anæsthetics, which apparently owed their employment exclusively to experimental evidence, we may fairly doubt whether they would not have been anathematised, as tending to curtail the penances which man had deserved, if their introduction had not been supported and justified by those better views of man's nature which are associated with a sounder knowledge of his physiology. It is all very well to talk of the practical character of surgery; but those who are best acquainted with its past history, and present position, will be most ready to acknowledge that there is no department of human work which has been so dominated by theory, as it ever has been, and still is, and that the most barbarous and baneful practices of bygone times have been justified by, if they did not originate in, the most absurd, yet tightly clung to, views respecting morbid humours, cleansing processes, etc. How terrible were the inflictions which those theories wrought in the treatment of wounds; and what a satire was it upon the supposed practical and observant qualities of the surgeons of those days, that these monstrous theories and their disastrous results could be uprooted only by the substitution of the still more absurd,

(b) George Eliot, *Macmillan's Magazine*, July, 1878, page 166.

but less pernicious, theory of the "sympathetic cure," which transferred to the sinning weapon the noxious drugs that had previously been destined to torment the wound; and, in these last times, the acceptance of an antiseptic treatment is due, in no small degree, to the belief in a septic theory. The so-called most practical men, those who especially pride themselves upon this quality, are not unfrequently the veriest dupes to theory. They are the worst observers because they are the most prejudiced, and they most doggedly resist any innovations of treatment which are repugnant to what they conceive to be right, and to the views they have held with a determination proportionate to their groundlessness. Indeed it would seem to be a feature of human nature that the more erroneous a view, and the less of reason it can claim, the more tenaciously is it held. Certainly, that which has least of reason in it is most impregnable to the assaults of reason.

If, then, the practice of surgery has such close relation to theory, and is so dependent upon it, how important is it that the theory should be based upon sound principles, and be cultivated by the ablest minds. This most practical of sciences is no exception to the law which rules all science, the law that thought is the polar-star of work, and that without its guidance and help no real progress will be made.

This Hunter saw, with this view he laboured, and we must continue in the same direction. He recognised that pathology is the keystone of surgery, resting upon a wide-reaching study of physiology on the one side, and careful clinical observation on the other. To the physiological side of the arch his own attention was chiefly directed. At least it is to his labours in this field that his influence was mainly due. To the still germinating and fructifying produce of his perceptions of the relation between pathology and physiology we owe a clearer estimation of the important generalisation, which must form the foundation of all rational treatment, that morbid processes, and morbid structures, are only modifications of, and deviations from, the processes and structures of health: that, in his own words, they result from "perversion of the natural actions of the animal economy," and that to understand either thoroughly, we must study it in relation to the other, and watch closely the transition of one into the other. It is on the steady prosecution of research in this direction that our hopes for further advance in the theory, with associated better and more scientific treatment, of disease must chiefly rest; and the feeling that a ravaging cancer is but the produce of some modification of natural and benign processes, gives a craving for a clearer apprehension of those processes, and of the essence and stages of this terrible, though it may be slight, modification of them, and throws a glimmer of hope over the prospect of dealing with this, at present, most hopeless and dire, and, I fear, growing, scourge of civilised humanity.

To those whose duty it is—and it is the most trying part of their duty—to witness the protracted sufferings and the mortality caused by this and other allied diseases, and who long for the time when science will bring some alleviation or remedy on its wings, it is no small discouragement to be met by an appeal to humanity against them in their pursuit of that method of experimental investigation, which was resorted to by Hunter and Harvey, and all, or nearly all, those to whom the world has been most indebted for accessions of knowledge in this direction, and which is the only method by means of which much further advance can be made. The old and unceasing battle between reason and feeling is being, unfortunately, waged upon this ground. We may be sure that victory will ultimately be, as it has, under similar circumstances, always been, that the warm impulses which easily run into prejudice, and which are, as usual, fanned by readily credited exaggeration and misrepresentation, will ere long wane before the steady pressure of greater enlightenment and cool reflection.

We watch the phases of public sentiment on this question with no small anxiety, knowing full well that, while advancing civilisation brings, with one hand, through the massing of people together, and the various modifications of their habits, a growing wave of disease, she offers, with the other hand, through increasing knowledge and improving methods of investigation, a no less sure means of staying and backening that wave. I say of backening the wave, because experience shows that the remedy, well used, may be more potent than the evil, and may produce an actual improvement in sanitary conditions, and a proportionate prolongation of life. But we feel that, unless we are free to use the remedy which civilisation offers, we must suffer the evil she inflicts, the evil of physical, and, as the necessary associate with it, the evil of moral and social degradation. The question becomes more urgent as the more rapid strides of civilisation enjoin us to avail ourselves of every aid which she affords. That experimentation on the lower animals, thoughtfully designed and carefully conducted, is one of the most important of these, and is really essential to any thorough investigation of healthy and morbid processes, and to the greater assurance of the scientific basis of medicine and surgery, no one who is cognisant of these subjects can doubt; and we may trust that the rolling wheel of time will ere long give to the sympathies of those who now oppose it a higher and a better turn.

While thus dilating on the importance of physiology, and the thoughts associated with it, to the practical work of surgery, I must not omit to observe that the converse is no less true. The lessons which may be derived from the observation and treatment of disease are of the highest value, as Hunter found, to physiology. The sciences are mutually illustrative and corrective; and it is sincerely to be hoped that the light which they are capable of throwing upon one another will not be lessened by the tendency to separation of physiology from anatomy and surgery which the growth, especially of the first, seems to necessitate, but which we cannot but watch with some jealousy and apprehension.

It is, then, by the good adjustment and reciprocating influences of the practical and scientific, or of work and thought, that surgery is to be advanced. This combination, and this alone, gives knowledge. I have already said that the enjoyment of the knowledge resulting from this combination, and of the mental efforts associated with it, must have been the stimulus to the persevering efforts of Hunter, and, so, the cause of the results which he obtained. We are all made of the same metal, though, in us, it may be less good and have a less clear ring than it had in him. The love of knowledge is deeply embedded in, and is a strong motive power with, us all. However richly our garden may be planted with other trees, the fruit of the tree of knowledge has the greatest attraction for us. Call it curiosity, or what you will, this love of knowledge is an inherent and active principle at all ages and in all races. It is the very corner-stone of the temple of science. One of the great efforts of education should be to strengthen, to utilise, and to build upon it; and the pressing question respecting education, at the present time, is whether it does so. If it does not, if the love of knowledge is choked rather than nurtured, if the student ceases to take pleasure in mental effort, and has less and less desire for information, as time goes on, then has education failed in one of its chief purposes. The student may be brought to the fountain, he may be made to drink; but if the draught have lost its sparkle and refreshing quality he will start back from it as soon as he can.

Is there not reason to think that this is too much the case at the present time, not only in medical, but in general teaching? Does not the student, as a rule, fly from, rather than cling to, his work? Is not this a somewhat marked feature in our own country? If it is so, what is the cause and where is the fault? They are not in the nature of the pupil, for that, as I have just said, has an affinity, a desire, for knowledge; and they cannot be in the subject taught, for no subject is devoid of pleasure-giving quality. Must we not, then, look to the method of teaching? Wherein, in the main, do we most perceive the difference between the good teacher and the bad? Is it not that the pupils of the one are inclined to, and take interest in, and are happy in, their work, and therefore make progress in it, whereas those of the other do not? Both teachers may fail to recognise the cause of this difference in their pupils. But the pupils have no difficulty in tracing it to the teachers. They find that the one imparts brightness and warmth, that the other brings dulness and coldness. From the one they obtain knowledge and derive stimulus to the pleasure of mental effort; from the other they fail to acquire these. The one, Hunter-like, associates facts with thoughts, connects the body with the spirit, and so makes it animate and buoyant; the other gives facts without thoughts, presents the body without the spirit, lifeless, heavy, depressing, an *indigesta moles*. The one brings the facts into relation with each other and binds them together by laws and principles, and so fastens them in the memory; the other leaves them

isolated, scattered, evanescent. The one makes his pupils reasoning agents, and gives them a taste of the pride and pleasure of being such; the other leaves them mere machines, without fire and without impetus.

What were the views of Hunter upon this matter? He states in his "Principles of Surgery" that his object was to "fit his pupils to act as occasion may require from comparing and reasoning on known principles." "Too much attention," he goes on to say, "cannot be paid to facts; yet too many facts crowd the mind without advantage any further than they lead to establish principles." These words give the very marrow of sound teaching, and should be graven wide and deep in the walls of every school and in the heart of every teacher. They show that this master of observing and thinking was no less a master of the scarcely inferior province, the province of teaching.

They have, alas, been too little heeded. They were caught up, it is true, by one who used the strong mental power, with which nature had endowed him, to propel his class along the lines of observation and reflection which Hunter laid down, who strove to connect facts with principles, and to fit his pupils to act as occasion might require, and who was, in my humble opinion, for this reason chiefly, the greatest teacher of surgery which this metropolis or Europe has produced since the days of Hunter. His example has been followed by some of his successors, but scarcely with the like power and persistence, or the like conviction of its value. Why should there have been a decadence in this respect? Why should not the philosophic character of teaching which Hunter inaugurated, and which Lawrence continued, and which, as we have seen, would produce the best practical results, have been more anxiously and systematically continued?

Apart from the unusual capacity of these two men for the work, there can be no doubt that the difficulty of carrying out a rational and really beneficial system of education, as opposed to what may be called cram, is greater than it was; and this increasing difficulty is, in the main, attributable to two factors, both of which are unavoidable, and which it is, therefore, our business to grapple with and seek to turn to good account.

The first is the mass of facts which accumulates with increasing rapidity in every branch of science, rendering the study of each more laborious, so dissociating it from others and reducing the range which any individual can possibly grasp, and the breadth of view which he can command. Knowledge grows, but man stands still; that is to say, the intellectual powers of man are no greater now than they were in any of the known past ages—in the days, for instance, of Homer or of Plato, of Confucius, of Buddha, or of Moses, no more powerful to mould the material at hand; whereas the material has vastly increased. If the discrepancy between the *Βίος βραχύς* and the *τέχνη μακρή* was striking and oppressive to the mind of Hippocrates, what must it be now, seeing that the intervening period has gone on adding to the one without prolonging the other? Each of the many hills upon which the science of medicine is based, has been heightening, widening, separating from the others and growing into a mountain. It is impossible for anyone to climb them all. Some must be abandoned. The alternative is short cuts, forced marches, superficial, and therefore evanescent, impressions, weariness of the mind and dislike of the pursuit. The level of qualification to practice has to be reached in some way or other, and quickly; therefore, the difficulties of the way must be smoothed, or skimmed over, instead of being carefully explored and mastered. There is danger of too much teaching and too little education, of too much pushing and dragging *alias* coaching, and too little self-help, of too much of being got up the paths of knowledge and too little of getting up. Those ready primers, but intellectual dampers and mental stuffing machines—the "vade-mecums" and "handbooks,"—are brought into eager requisition. The time of pupilage is converted into a period of struggle and cram and painful visions of insatiable examiners, instead of being a period of quiet study and of enjoyable, and proportionately profitable, preparation for the practice of the profession.

For the examinations constitute the second difficulty that I have referred to. They are annually growing in extent, in importance, and in influence. Indeed, they are becoming, or have become, the directors and regulators, the despots, of education. Teachers and students are compelled to conform to their behests. The lecturer is bound by the examination cycle and the examination method; and the publisher finds the readiest sale for the books which quickest prepare for the examination standard. And, so to order examinations that the maximum of good and the minimum of evil may result from them is the great educational problem of our time. They are necessary as tests of knowledge, and therefore cannot be dispensed with. They furnish a stimulus to work which is obviously needed in many, if not in most, instances; and they have the great merit of compelling the student to clear his ship for action, to make his knowledge clear, defined, precise, and producible; and they induce him to cultivate the very important faculty of concentrating his mental batteries, and bringing them to bear quickly and effectively upon the required point.

The great evil of examinations, and the more strenuously to be contended with, because it is almost inevitable, is their tendency to make facts preponderate greatly over thought, and so to add to the accumulating weight of that heap which oppresses the student and smothers his aspirations and interest in his work. It is a tendency which all who are experienced in examinations and their influence cannot fail to have recognised and to regret; and they must feel the difficulty of avoiding it, especially in those examinations which, from the numbers they affect, have the greatest influence—viz., the examinations for a pass. It is a far easier and quicker process to test the student's knowledge of a fact than his capacity and habit of thinking upon and turning the fact to account. Yet, it need not be said, the latter is of infinitely greater importance. Indeed, a fact is of little value, and little likely to be retained by the brain, unless it is graven in, and rendered capable of utilisation by thought.

Anatomy furnishes a good illustration of the manner in which the present system works. It is pursued with increasing attention and exactness of detail. The knowledge of the facts of anatomy, we all admit, are essential to the practice of surgery, and to an appreciation of physiology; and the correct learning of them promotes the habit of attention, and of accuracy, which is the associate of attention. Still it may be questioned whether, from an educational, or even from a practical, point of view, the result is proportionate to the time and labour expended in the way in which it is done. Certainly there is no other subject which men exhibit so much proneness to forget, none which the over-distended memory so quickly disgorges as soon as the examination ordeal is over, and, too frequently, before that ordeal begins; and in the summary process the useful is indiscriminately rejected with the superfluous. The knowledge, painfully acquired, is strainingly held, and cheerfully let go. Hence, the facts of anatomy, being measured by an examination standard, and acquired for an examination purpose, are repulsive to most students, are made a drudgery instead of being a pleasure, and become a means of deterring men from scientific pursuit, instead of alluring them to it.

It will not, I am sure, for a moment be thought that one who has devoted so large a part of life to the study and teaching of anatomy, and who holds a responsible University position in relation to it, would speak disparagingly of it. On the contrary, I have a thorough estimation of the educational, as well as of the practical, value which attaches to it, owing to the opportunities which it affords of associating reflection with observation; and, on this ground, I have ever maintained that it certainly ought to be developed in connexion with our University system, and have laboured—and, I am glad to say, not unsuccessfully—for its admission among the subjects for the Honour Examination in the Natural Sciences at Cambridge, believing that its capabilities as an educational agent, if inferior to those of physics, are equal to those of any of the other natural sciences subjects. But, in thus speaking of anatomy, I do not mean an anatomy which taxes memory without stimulating thought; which consists in a collection of naked facts without an appropriate clothing of the varied interest which properly attaches to them, and which renders them attractive, and seals them on the memory. I mean an anatomy not limited to the technical details of the structure of the body, but a science implying an intelligent acquaintance with this the highest and most exquisite of existing forms. The dry bones as Hunter would have taught them—and as Bell, to some extent, did teach them—not with purposeless and pedantic minuteness of detail, but as parts of a noble animal

mechanism, and full of meaning, would become instinct with life, and would enlist the interest and stimulate the energies of the most unwilling student; and the facts thus learned would be far better retained, for the mind, like the itching palm, holds tightly that which it loved to seize. Hapless, under present circumstances, teacher and student are deterred from these more pleasant and fertile fields by the fear that the produce will fail to bring the requisite marketable examination return. They feel that the facts alone are wanted; and the facts alone must be supplied, and culled, in all their coldness and massive repulsiveness. The pattern must be that of Hunter's Chinese philosopher, "whose knowledge consisted only in facts," and partakes little of the similitude of his European, "who reasons from principles, and thus accounts for facts."

I quite admit that these remarks apply, not to anatomy alone, but, in greater or less degree, to the other branches of medical science and to examinations generally, and that the influence operates banefully upon the whole educational system of the country, with the result that thinking is not cultivated in due proportion to learning, and that mental stores are heaped with too little regard for the strengthening of the faculty to use them. But in medicine, and surgery, and in anatomy above all—more particularly since physiology has been, to a great extent, divorced from it—is the danger especially great; for the required facts are so many, and the time allotted to study and examination is so short. The evil too, unfortunately, is not limited to the student period. It ranges into the subsequent stages of life, infecting the future guides, and teachers, and examiners, as well as the practitioners, and so propagates itself irresistibly. How rarely do men continue the study of their profession for any length of time out of pure love of it; and how refreshing—like mother earth touching—is it to come into contact with those who do so. Had Hunter been trained upon the present system, had he been weighed down by tightly compressed facts when a student, and, subsequently, by outpatient-seeing on the one hand, and pupil-cramming on the other, it is scarcely to be supposed that even his mind could have burst the iron fetters, and could have regained its elasticity and love of work, or that even he could have found time for those reflections which gave such impulse to the science and practice of surgery.

What can be done to effect an improvement, to counteract the mind-enslaving influence of accumulating facts and greater stringency of examinations, and to bring about that larger association of thought with work in our educational system, which would approach nearer to the Hunterian ideal, which would attach greater interest and pleasure to study, and would render our students more thinking agents, more able to analyse and deal with the difficulties they encounter, and, therefore, better fitted to take their rank as members of a learned and liberal profession?

The examinations, as I have said, are, and must be, the despots of education. They have probably, for the present at any rate, been made sufficiently severe. What is required is a gradual alteration in their quality. They might well afford to be less exacting in the amount and variety of detail and circumstance, and to throw somewhat more weight into the scale of intelligent appreciation of the knowledge possessed; so that, by their requirements, they may develope a better adjustment of the balance of work and thought. They should not be considered merely as tests of fitness for certain positions and rewards, but, even more, as educational agents, as the guides of teaching and of study. Every question put must be regarded as a drop in the educational current of the future; and examiners must recognise that they are not simply judges of the students who come before them, but that they are, in no less degree, directors of, and so responsible for, the teaching of those who will follow.

I see the objections that may be raised to this, and I have sufficient experience as an examiner to know the difficulties of carrying it out; but objections and difficulties never fail to grow on the path to improvement. They sometimes seem to point the way, and nerve us to overcome them; and they do so by telling that proportionately great efforts are necessary, and must be made.

What is really wanted, and what teachers and examiners must combine to promote, is, to use the words of the "laughing philosopher" Democritus, who was one of the greatest thinkers of antiquity, that "we should strive not after fulness of knowledge, but fulness of understanding," that is, that we should strive for good, clear, solid, intelligent, producible and available knowledge of the kind that will be useful in after life—not so much the refinements of chemistry, anatomy and physiology, which, in their aggregate, are likely to perplex, encumber, stupefy, and then pass away like chaff before the wind, but the essential fundamental facts and principles welded together, and so woven into the student's mind that he can hold them firmly and wield them effectually, and that he is conscious of them, not as the goods of other men, or as dogmas which he has because they were imposed upon him, but as his own possessions, of which he appreciates the value because he knows how to use them. "The knowledge which a man can use is the only real knowledge, the only knowledge which has life and growth in it, and converts itself into practical power. The rest hangs like dust about the brain, or dries like raindrops off the stones."(c)

It is a hopeful feature of our time that teaching is now occupying the serious attention of thoughtful minds, is beginning to be regarded as a science,—assuredly it is second to none in practical importance,—and that it is likely to receive that recognition at our Universities, as a subject of special study, which it has ever deserved. A good influence thus engendered, and gradually telling upon the general education of the country, will do more than any other thing to promote the improvement of our profession, first, by the better preparation of those who enter it, and, secondly, by the improved methods of teaching in it which are sure to follow; and it will contribute as much as anything to promote the future welfare of our country, and to give to our people that strength of mind and force of character which are more than ever necessary for the maintenance of our position among the nations of the earth. Whether it be in the workshop, on the bourse, in the sick-chamber, in the senate, or on the battle-field, the best educated, most thoughtful, most able persons, must take the lead. A home-striking confirmation of this is being now given in the lesson, which we ought never to have had occasion thus to learn, that English manufacture is being beaten out of the field, not in consequence of any accident or cause which we could not have foreseen, but, in great measure, because the English workmen are less intelligent, less thoughtful, less given to reading, less self-controlling, less provident, than those of some other competing countries. Must not, and ought not, success to be with the nation in which these qualities are most abounding? The question whether the prosperity and influence of Britain are to continue, whether our flag is to rule the waves of the future, and for a thousand years to brave the battle and the breeze, must depend upon the education of her people, and not upon the amount, but upon the quality of that education, that is, upon the mental training which it gives, and the thought-producing power which it evolves. Teachers and examiners are the masters of the world's position. Let them feel their power, and combine to use it well.

In this far-reaching work our College has an important part to perform, and is answerable to the profession and the country for the manner in which it fulfils it. It has a great inheritance; and, what is far more to the purpose, it has a great influence, and proportionately great responsibility. The wand, more potent than that of the magician, the arch enemy and sure destroyer of all magic, the wand of observation and thought, handed on to us by Hunter, and, in turn, wielded by Abernethy and Cooper, by Travers and Green, by Brodie, Lawrence, and others, is now in our hands, and with it the future destiny of the surgery of England—the rank which surgery is to take as a science, the degree to which it is to be raised above the level of empiricism. There is no one, Mr. President, I am sure, who more fully appreciates this than yourself, no one who, from the vantage-ground of a well-cultivated mind, watches more jealously the curricula of professional study, and is more anxious that they should represent a liberal system of education. This is one of the many grounds which gives us confidence and pleasure in seeing you in the honourable position which you occupy, and which makes this College gratefully accept, and place among the treasured mementoes of its heroes, that expressive cast of a thoughtful mind which has been lately presented by those who feel and admire your powers and the good work you have done.

(c) Froude, "Short Studies on Great Subjects," page 267.

The maintenance of the close connexion and mutual interdependence of anatomy, physiology, pathology, and surgery, is one of the great duties of this College, which will need increasing vigilance, and be a source of greater difficulty every year. The enlarging scope of each of these subjects separates them from one another, and necessitates a division in their teaching, their study, and their examination. Still, the man who can best combine them and wield their united force will be best able to solve the problems of disease, and shape his course to successful treatment. By this rational method only can we gain a sure footing, and be able to withstand the shocks of bold assertions which are the essence and strength of quackery, and to resist those violent vibrations of the pendulum of opinion, or rather of feeling, which, within a few years, have carried us from wholesale venesection to timidity at the application of a leech, and have threatened to drag us from the indiscriminate administration of alcohol to the total repudiation of it. If the profession is thus liable to be beaten from pole to pole by the changing blasts of fancy and fashion, it is no wonder that the public are wavering in their confidence, and are capable of being attracted by the bold promises of empiricism under whatever form its head is raised. The difficulties of the science of medicine must not be shirked by indifference, or eluded by dogma. They must be admitted, sought after, welcomed. Without them it would be no science at all. By their nature and their greatness they rank it in the forefront of science. Advancing knowledge reveals them more clearly, and tells more forcibly the debt of gratitude we owe to those benefactors of mankind who have taught us how to recognise them and how to overcome them, and whose examples are therefore the light along the path we ought to follow.

One familiar face, Mr. President, which we have long been wont to welcome on these occasions, is looked for in vain to-day; a face the open, manly, and cheerful features of which told, in most unmistakable manner, the genuine sincerity and genial character of the man. In John Hilton this College has lost one of its ablest administrators, and one of its most zealous servants, one who never failed from his post till his absence warned us that we should ere long be deprived of his assistance; for we knew that nothing but illness, and that of no light kind, could keep him away. His surgical acumen and good sense taught him, and made him teach others from this place, that a large share of the power for good in our hands is represented by the shield rather than by the sword, forasmuch as it consists in warding off the foes that minister to and encourage disease, and in giving that rest which may leave the processes of nutrition free to resume their natural course. He thus carried out the principles in which Hunter and (Hunter's great rival) Pott agreed, and through which they inaugurated a new and more benign era in practical surgery. Had he been more liberal to himself of the rest which he so freely prescribed for others, we might still have had the advantage of his business habits and the enjoyment of his social qualities.

In another of our Fellows, George Firth, Norwich has been deprived of a worthy successor of those eminent surgeons—Gooch, Donne, Rigby, Martineau, Dalrymple, and Crosse—who form a line the equal to which no other provincial town, so far as I know, can boast; and he was no unworthy representative of the high literary character which the city of Sir Thomas Browne has long maintained. *Integer vitæ*, with thoughts above the sounds of applause and the impulses of ambition, he upheld the honour and dignity of the profession by the surest and steadiest of all means, the force of a high and consistent example.

And, Sir, in the seemingly brief interval which has elapsed since that memorable day when, with Prince and peers and statesmen, we listened to the flowing utterances of the great orator who last performed this duty which I have so feebly attempted, how many of our Fellows and Members have obeyed the roll-call which has summoned them from a life of usefulness and activity, a life chequered with deep anxieties and heavy responsibilities and grave disappointments on the one hand, and with glowing hope and cheering success and warm returns of thankfulness on the other. They have passed away; but they join the spirit of the day in beckoning us onward, and in warning us to seize the opportunities which life affords, for they are great and they are sudden.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON

THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

(*Continued from page* 145.)

Influence of Temperature upon Disease in India.

THE subjoined table(a) will afford a fair idea of the prevailing temperature in the Plains and Hills of India:—

	Calcutta.	Rajshahye.	Delhi.	Rawul Pindee.	Simla.	Madras.	Bombay.
	degs.	degs.	degs.	degs.	degs.	degs.	degs.
January	65·4	68	56	49·8	40·0	79·65	
February	74·2	75	61	57·1	44·1	80·64	
March	83·9	87	72	68·1	53·4	83·24	
April	86·6	89	83	74·2	61·3	85·75	
May	89·0	93	91	86·9	66·3	86·80	
June	86·2	88	92	90·9	80·9	87·67	
July	84·1	87	86	85·5	75·5	86·00	
August	82·6	86	83	83·2	78·1	86·00	
September	83·8	89	83	85·7	70·0	84·8	
October	81·1	84	77	76·2	67·9	84·60	
November	75·4	77	65	45·0	52·3	78·51	
December	66·9	...	56	...	46·1	79·31	
	ins.	ins.	ins.	ins.	ins.	ins.	ins.
Total rainfall of the year	62·0	84·61	20	...	70	48	80

Mean temperature of year, 81

Effects of Indian Cold in the Production of Disease.

A stranger, looking at this table, will probably remark, "Why, cold weather is never experienced in the Plains of India, however much it may prevail during a winter in the Hills!" To this we must reply, whatever the thermometric readings may be, cold and its ill effects are by no means unknown to the inhabitants of the Plains. The "Cold Season" in Ceylon, Madras, and Bombay, certainly little deserves that name. During a morning's work in Bombay, on November 30, a few years ago, I said to myself, "I am in danger from this dreadful heat!" During the railway journey up the Ghauts, that afternoon, the heat was pleasant. Soon after nightfall we reached the summit of the ascent, and there, all unprepared, we rushed into a wind so piercingly chilly that it gave me an attack of my Chittagong fever. The cold season in Calcutta is, to people in sound health, very pleasant and invigorating; but to many it is, at least at its commencement, only a wretched ordeal of chill and congestion.

During my first and second winters in India I was tolerably healthy and thought the cold weather most enjoyable. After that I became subject to tertian fever and its congener neurotic asthma. I then began to dread the cold, and to understand the expression of a Highlander in India, which is, I think, cited by Sir R. Martin—"I can rejoice in the rude blasts of Caledonia, but this damp cold is terrible!" Thenceforward, for four-and-twenty seasons, I scarcely ever escaped an illness, of from three to six weeks' duration, at the beginning of the cold season, except in two winters spent in England. The expression, "This is more like cold water than cold air!" constantly suggests itself to the invalid in Bengal. The native poor, who are insufficiently clad, and can ill afford to buy fire-wood, suffer miserably from cold, and their dwellings are constructed with a view to resist cold rather than heat. And yet a black frost is impossible in Calcutta; a little hoar-frost is sometimes visible. Northward, the cold increases in severity up to Peshawur, and the duration of the winter increases from about three months to five. Stoves are not always provided in Calcutta houses, but during the cold season a greatcoat and a rug are indispensable during the early morning and evening drive. Still, except for a few days about New Year's Day, the sun is so powerful as to prevent Europeans from walking about with comfort in the middle of the day. The Indian cold season is to be feared because it rather suddenly checks the cutaneous action of those who have been in a state of profuse

(a) This table is compiled from data given by Sir Ranald Martin, Dr. D. Stewart, Dr. John Macpherson, Mr. Hugh Macpherson, Mr. Joseph Bedford, Dr. Alexander Grant, the *Encyclopædia Britannica*, the *Madras Topographical and Statistical Reports*, and Chevers's "Health of European Troops in India."

perspiration for the preceding nine months, and because, it being the period of greatest drought, paludal poison is up and doing. What one of my colleagues terms the "Masked Malignity of the Bengal Winter" displays itself in most of the evils which result from arrested cutaneous action and visceral congestion in many forms—Dysentery, Acute Suppurative Hepatitis, Congestive Malarious Remittent of the cold season, Bronchitis, Hæmoptysis, and intercurrent Pneumonia in Phthisis, Hæmatemesis in Kirrhosis of the Liver, Morbus Brightii, Catarrhal Affections, Chronic Bronchitis in aged natives, Pneumonia, etc. As a general rule, every European in India looks forward with pleasure to the cold season. It is a time of amusement, and its sensations and aspect recall the idea of Home. It gives new vigour to the healthy, and the delicate generally find themselves stronger before it is at an end. It is certainly better to fall ill before than after this season, because, in the former case, the cold weather generally aids the European's recuperative power, whereas, in the latter, the invalid has to undergo the ordeal of nine months' exhausting heat.

Effects of Indian Heat in the Production of Disease.

The ordinary action of Indian heat upon Europeans is, I think, generally misunderstood at Home. When he returns to England, the Anglo-Indian is generally pale and averse to long walks: but this fault in his complexion is generally caused by living in a darkened room, although it may, in sickly persons, be due to anæmia; and his apparent inactivity mainly arises from the fact that people in India do not go about their work a-foot. He therefore usually regains colour and muscular activity almost as soon as the blisters on his feet are healed. It is also often imagined that the European in India is languid and debilitated. On the contrary, I believe that more cheerful work is done there than here. In India there is none of that dull sense of cold which depresses the spirits and renders the mind sluggish: the hot clear air of India moderately excites and exhilarates. The Indian official rises at five, works cheerfully in office from ten till six, and then too often goes to a dinner-party, which, although it is a strictly temperate affair, is a mistake, because it robs him of that evening quiet and rest which he requires, and does not allow him to go to bed till twelve. Thus many work pleasantly for years, never sleeping in the day-time. Free action of the skin, although an essential to health in hot climates, is generally troublesome in Lower Bengal, in consequence of the great humidity of the atmosphere; and in some it is excessive, being at once a result and cause of debility. On a very hot day in England the idea that a cold bath would be pleasant at once suggests itself. I never exactly felt this in Bengal. One feels wet rather than hot, in consequence of the slowness of evaporation. So great is the moisture of the climate that one who lives quietly suffers but little from thirst in Bengal. It is the reverse in the dry up-country heat. Hence, we used to notice that when a man from the North-Western Provinces came to an appointment in Calcutta, he always began with a large *surai* of drinking-water on his writing-table. This generally disappeared in a few days. One of the very worst consequences of Indian heat is disturbed sleep. There are years in which the dweller in Bengal may declare that he has not enjoyed perfect sleep for nine months. It is especially in this that the Indian cold season, or a cool "Rains," or a sojourn, however short, in England, proves so validly invigorating to the Anglo-Indian constitution. If there is any one point in which, physically, the denizen of England has especially an advantage over the dweller in Bengal, it is in this: he sleeps not longer, or oftener, or more heavily, but sounder and more refreshingly.

There is a great deal of Insolation (no longer erroneously termed heat-apoplexy) in India. The Hindu and Mahomedan natives, who are only naturalised foreigners, not the aboriginal inhabitants of India, also occasionally suffer from sun-stroke, as happened when Suraj-ud-Dowlut suddenly moved his army down from Moorshedabad upon Calcutta, in sun-stroke weather, immediately before the setting in of the Rains. Great outbreaks of sun-stroke, such as occurred in England last summer, and in New York twelve years ago, are less frequent (although they do occasionally happen, as in the Mutiny Year) in India than in Europe; because, in the former country, the danger is always apprehended and guarded against. I have long looked upon Insolation, as we see it in India, as being more generally due to some error in the constitution than as being the sole work of the sun-stroke, which has, in many cases, merely acted as an exciting cause. The noxious exhausting effect of excessive solar heat upon the nervous system of man is by no means certain and uniform. Thus, if a hundred men fall into boiling water, or enter an atmosphere of carbonic oxide, all, without a single exception, will of course be scalded or choked; but if, as occasionally happened in old times, a company of European soldiers having to take the short march from Dum-Dum into Fort William, started an hour later in the morning than they ought to have done, all would arrive much knocked up; but probably only some five or six would be brought into the Main Guard with Insolation. If we could, looking at these sufferers, judge (as I do not pretend that I could do immediately) what the diseased state of each precisely is, we should probably read their conditions somewhat as follows:—This somewhat corpulent sergeant is beginning to grow old; he has served long in India, and has lived intemperately. He has some kirrhosis of the liver and organically defective kidneys. He is suffering from cholæmia and uræmia, rendered dangerous by sun-stroke. This muscular young man is epileptic; he fell in a state of eclampsia. This well-conditioned soldier started feeling rather chilly and unwell; the sun's influence struck him down just as the hot fit of intermittent fever came on. This man's small intestines will, on post-mortem examination, be found to contain cholera stools. Who is this poor blue-jacket among the red ones? He is a European sailor on the loose, who reeled in with the party. He has drunk a quantity of liquor which he might just have been able to carry in cold weather, but he was so nearly upon the verge of dangerous alcoholic poisoning that his brain could not endure the additional trial of exposure in sun-stroke weather; so that here we have a very common case of what is called Insolation in Calcutta. This immature lad is a recruit of delicate frame, scarcely equal to the weight of his accoutrements. When he became greatly fatigued on the march, extreme heat completely overwhelmed the well-nigh exhausted power of his nervous system; and thus we have, in his person, the only case of true and uncomplicated *ictus solis* in the party.

Although most prudent Europeans avoid, as much as possible, direct exposure in Indian sunstroke weather, it takes a great deal of such exposure to produce this kind of heat-shock in a perfectly sound nervous system. There must, apparently, be some weak point at which the enemy can enter. An elderly Highlander, of herculean proportions, who had generally enjoyed robust health, told me that, during his long career as a shipbuilder near Calcutta, he had daily occupied himself in his dockyard almost without regard to the sun. On one occasion, however, he had attempted only to round the corner of a building, coming out at one door to enter at another, when the sun struck him down. Doubtless there was, at that moment, some "screw loose" in his constitution, although he was not aware of it. Upon disease generally, excessive heat has a very injurious effect, rapidly exhausting the phthisical and the subjects of large open hepatic abscesses by hectic and colliquative sweating, and especially searching out any weak point in the nervous system. Thus he who is epileptic in India frequently recovers in a temperate climate. I used frequently to tell my students, when the Rains set in, that it was nearly certain that all our brains and spinal cords were fairly sound, or we should not have passed through the hot weather so safely as we had done. In ordinary Indian weather I very rarely lost a case of Delirium Tremens; but I have frequently said to my house-physician, when admitting a decided case on a sun-stroke day, "He can scarcely outlive the day"; and this because experience had taught me that a temperature which healthy brains could barely endure must almost certainly overwhelm and arrest the action of this exceedingly embarrassed one. The exhausting effect of heat is almost as operative in the night as by day. Thus, on my morning visit, at this season, I not unfrequently missed a case which I had expected to last some days or weeks longer. He had failed during the great still heat of the night. On the afternoon of a sun-stroke day I was called by a brother officer to see a young English lady just confined with her first child. There had been nothing unusual in the case, and the loss of blood had been perfectly normal. Still she sank and went out in our presence. She did not appear at all unhealthy, but it was said that she was less strong than her sisters.

I felt convinced that, had she been confined in moderate weather, she would have lived. In nearly like manner, another young lady sank, about three weeks after her first confinement. The friends all attributed her death to prickly heat (*lichen tropicus*). Both of these patients failed to obtain, in sun-stroke weather, that recuperative nervous energy which the trials of a first parturition demanded in them. Two summers ago, I was so unfortunate as to be at Hastings in sun-stroke weather. My landlady informed me that my bedroom was usually occupied by a consumptive lady. "A few nights there," I said, "would inevitably kill her." "Yes," was the reply, "in very hot weather she goes to Tunbridge Wells." I believe that all that we have here considered, with regard to excessive heat in India, applies largely to the condition of our sick in the hot weather of temperate climates.

Of all the vicissitudes to which the climate of India is liable, none interfere with health so seriously as *the rapid transitions of its temperature do*. Steel can alone bear instantaneous change from heat to cold, and steel is generally wanting in Indian constitutions. Hence the invariable prevalence of sickness, especially from dysentery, hepatitis, and other abdominal diseases, at the commencement of the Cold Season and Rains. The Rainy Season has always held a very evil reputation, even with medical men. The result of my own observation is that, when the Rains set in heavily, continue evenly, and cease late, this season has not, in itself, many of the elements of unhealthiness, but it is constantly happening that he whose constitution the previous Hot Season has thoroughly exhausted, becomes the victim of serious congestion when the Rains set in. The abrupt change in temperature is, in fact, *too good* for him. If he could have been placed, as suddenly, in England on St. Swithin's-day, the violent transition would scarcely have hurt him less.

In India, as a general rule, people bathe every day and perspire freely. I recollect to have been told by Dr. Daniell, who made some very interesting observations on the Western Coast of Africa in its medical aspects, that upon first shaking hands, a native chief told him that he had a good prospect of escaping the diseases of that country—his hand was moist. In India, as elsewhere, excessive perspiration is, of course, a sign of debility; but to the healthy freedom with which his skin acts, the European in India is mainly indebted for his power of enduring great heat and cold with impunity, and for his singular immunity from certain forms of disease, such as gout and rheumatic fever, and the most distressing forms of dyspepia. With a sound brain and perfectly acting organs of excretion, the European has an equal prospect of health during the time of his service in India, and after his return to England. In a man thus happily constituted, the balance of action between the several excreting organs is maintained with admirable equipoise; the skin acting freely, there is no portal or thoracic congestion, and hence no constipation, "biliousness," or catarrh. Under such conditions of health, the organs whose action is reciprocally compensating act for one another with the greatest ease. Thus, when, in the hot season, a healthy European leaves the Plains for one of those Hill Stations where the ascent is sudden, a rise of a few hundred feet accelerates the heart's action, checks perspiration, and causes so much diuresis, that he is apt to become alarmed and to consult the doctor when he reaches the station. In a day or two he probably gets a sharp attack of diarrhœa known as the "Simla trots"—evidence that the liver and intestinal mucous membrane are acting vicariously for the skin. The same perfectly physiological tendency to compensatory diuresis, with some liability to diarrhœa, generally annoys the Anglo-Indian for a few months after he returns to Europe. This leads us to perceive why the climates of the Hills and of Northern Europe are so uncongenial to the Englishman who is the subject of confirmed organic disease, and why, as we have shown, the setting in (1) of the rains and (2) of the cold season, always refreshing and salutary to those in sound health, is so much to be dreaded by those whose innervation has become exhausted by the preceding hot weather, and by those whose constitutions are seriously impaired from malarious influence or any other cause.

Few hygienic measures have tended more validly to secure the health of Europeans in India than the abandonment of the dangerous luxury of linen garments and bedding, and the introduction of calico and of light flannel outer garments. Nothing can more refresh the healthy European than one of the thunderstorms which generally occur in Calcutta, on or about the Queen's birthday, in May. But, to profit by this sudden change, he should by day have an extra waistcoat, and by night a rug, always ready. He who is so incautious as to get a thorough wetting, or, as is often the case, to struggle with the storm in shutting his venetians blown open in his first uneasy sleep during the almost unendurably sultry calm of atmospheric tension which preceded the storm, will be exceptionally fortunate if he escapes that congestion of which the outward expression is dysentery, fever, or cholera. To an influence of this kind much of the acute hepatic disease, tending to abscess, for which the otherwise pleasant station of Bangalore, in the Madras Presideney, is or was notorious, was attributed. The day and night temperature up to midnight, in the hot weather, is very high. Towards dawn, a cold wind comes down from the hills, and, sweeping through the barracks, chills the over-heated and perspiring sleepers, and frequently sets up serious visceral congestion.(b)

A few examples, out of thousands, of the ill effects of sudden transitions of temperature in India will suffice.

A gentleman came to me, not long before I left Calcutta, with facial paralysis. Before he could speak I inquired, "On what night did you last sleep in your verandah?" He replied, surprised, "How do you know that I sleep in my verandah?" "Ah!" was the answer, "doctors know many more remarkable things than that."

A celebrated general, who was said to be the largest man in the Queen's Army, was taking a stroll near one of the Hill Stations. He felt hot, and, seeing a pretty stream falling over a rock, he undressed and stood under it. Suddenly he felt what he described as the sensation of a bayonet-thrust through his liver, and fell in a heap. An attack of acute hepatitis immediately followed.

An officer, feeling the night heat extremely, got into a cold bath; tetanic spasms at once set in. Bishop Heber died in a bath immediately on his arrival at Trichinopoly after a fatiguing journey in a palankeen. I have seen a violent attack of colic excited by taking a cold bath in India.

One who was a dear fellow-student and brother officer of my own had an attack of acute dysentery in the Rains. He recovered with difficulty, evidentally remaining weak and out of health. Early in October, the Monsoon broke up in a violent night storm; symptoms of active dysentery had set in when I was called to him in the early morning, and he died in nine days from gangrenous colitis.

The master of the Calcutta Sailors' Home, a singularly fine middle-aged man, went to bed well one very hot night in the Cholera season. When perspiring greatly, he was called up to pursue a thief, going in the thin light cotton drawers which all wear at night. Immediately upon his return he was attacked with cholera, and died in a few hours. His trousers would have saved him.

In Calcutta, whenever a heavy storm occurs during the Cholera season, the violence of the endemic is certain to abate—with this important reservation, that, when the storm occurs at night, several patients (chiefly Ooriah palkee-bearers who are ill-lodged and ill-clad), whom it has chilled, are generally brought in with cholera the next morning.

Again, however hot the weather in Calcutta may be, that marked fall of temperature which usually takes place between midnight and dawn generally affords a few hours' refreshing sleep. This cold of the "small hours," so beneficial to the healthy, was an influence which I always dreaded extremely, and endeavoured to guard against most vigilantly in practice. It is at this, the most critical period of the twenty-four hours, that phthisical patients are commonly attacked with hæmoptysis. It is then that anæmiated women and ill-fed native men, suffering from any form of exhausting disease, become suddenly collapsed, and that delicate children are attacked with diarrhœa or spurious croup. It is then that the onset of local congestions may be anticipated in the subjects of variola, measles, and remittent fever. This is usually the time at which premonitory diarrhœa gives place to true cholera; and now it is that the moribund native sick, with whom my wards were always crowded, become the subjects of what is perhaps best described as hypostatic congestion,

(b) Dr. A. Nairne has recently described (*Brit. Med. Jour.*, February 1, 1879, page 150) what he considers to be a new Indian disease, which prevailed extensively among the native coolies at South Sylhet, in Assam. He believes (although his paper is wanting in the data for such a conclusion) that one of its leading characters was renal catarrh. He attributes it to working almost naked in unusually cold and windy weather at the breaking up of the rains.

which, causing serous oozing into the cerebral and thoracic cavities—especially into the pulmonary air-cells—leaves the victim comatose and suffocating at about the hour of our morning visit.

Here the sequence of depressant causes, eventuating in a tendency to death, is perfectly clear—exhausting and painful disease; eighteen hours of extreme heat and almost absolute sleeplessness; the neglect of tired nurses in the administration of nourishment; a sudden and considerable fall in the temperature of the air; chill, congestion, effusion.

My hospital was certainly the most draughty receptacle for the sick that it has ever been my ill-fortune to attend, consequently these evils prevailed there very conspicuously; but the principle at issue applies equally to the generality of sick-rooms, not only in India, but in Europe. Against this danger my assistants and nurses were instructed to be constantly prepared. Sinapisms, cordials, and hot concentrated beef-tea, shawls, extra blankets, and hot-water bottles, were to be always ready. The change was to be clearly anticipated, and additional aid was to be promptly summoned. In this way the period of greatest danger may frequently be tided over. These remarks will be found applicable to most of the grave diseases which we are about to consider. The generality of observers have recognised the above facts; but they are not always sufficiently borne in mind in practice.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

RECURRENT SCIRRHUS OF THE BREAST—REMOVAL AND SUBSEQUENT ABSCESS AT SEAT OF OPERATION—SEPTICÆMIA—DEATH.

(Under the care of Mr. HIRD.)

Olive H., aged forty-seven years, a widow, was first admitted into the hospital in July, 1877, under the care of Mr. Canton. At that time she had a tumour removed from the right breast, which, from its anatomical characters, was considered to be non-malignant. She made an excellent recovery, and was discharged after having been in the hospital a little longer than a month.

On August 13, 1878, she again applied to the hospital, and was readmitted under Mr. Hird's care. The following are the chief points of her history then obtained:—Her father and mother both lived to a good age, the former having died at the age of seventy-five years, the latter at the age of sixty-seven years. There was no history, in any branch of her family, of phthisis or consumption or other hereditary malady. She married at the age of twenty-three years, and had six children, four of whom were alive and healthy. Her husband and her husband's mother died, she stated, of cancer. She herself had never had any serious illness, but had always been strong until eight years before, just after her last confinement. She had never been able to suckle her children on account of cracked nipples, and at this time she had neglected to "drive the milk away." A tumour then appeared in the right breast, which grew slowly and gave her little pain. This was the growth removed by Mr. Canton in August, 1877. From the date of that operation she had been exceedingly well until six or seven weeks before readmission. She then was troubled with darting pains at the seat of the cicatrix of the old wound, and a small hard growth appeared near the axilla. She applied to the hospital, and was admitted for operation.

On admission, patient was a well-nourished, but somewhat cachectic-looking woman. Below the seat of the old wound there was a hard growth attached to and immediately below the skin. This was about the size of a half-crown, hard, slightly tender on pressure, and the skin over it was red. There was apparently no implication of axillary or clavicular glands.

On August 22, Mr. Hird removed the growth, which, on examination, proved to be scirrhus. There was nothing noteworthy in her convalescence, which was rapid and complete, and she left the hospital on September 14, with the operation-wound quite healed.

On December 4, 1878, patient was again admitted under Mr. Hird's care. She had then a swelling above and partly over the right clavicle—the side from which the scirrhus was removed. She stated that this had appeared suddenly without apparent exciting cause shortly before admission; she had treated it herself with applications of iodine and poultices.

On admission she complained of pain in the elbow, wrist, and fingers on the right side, but this symptom soon passed off. There was at first some doubtful fluctuation about the clavicle, but no marked signs of cutaneous inflammation. Applications of belladonna and glycerine were made, and patient was kept at rest in bed. The following extracts from the hospital reports show the subsequent events of the case:—

"December 11.—An incision was to-day made by Mr. Hird into the swelling, which now is distinctly fluctuating, and a quantity of healthy pus was let out, apparently welling up from below and in front of the clavicle.

"26th.—The discharge from the wound continues to be slight, and in every respect she continues to do well. From the time of opening the abscess poultices have been applied.

"January 6.—The wound still remains open, but discharges little pus. There is some hardness under the clavicle; general condition of patient is good, and the temperature is about normal."

From this date until January 19 there was nothing special to note in the case. The wound nearly, but not quite, closed up; the temperature was slightly above normal, but there was no appearance of extension of the abscess, nor anything abnormal in the appearance of the chest-wall.

"20th.—This morning the temperature was 103·6°, in the evening 105·2°. No cause for this has been detected.

"22nd.—An incision was to-day made about two inches below the clavicle, but no pus was detected there.

"23rd.—Tongue brown and dry; there is little discharge from the wound; morning temperature 103·2°.

"26th.—Patient had a rigor this morning, and at 3.30 p.m. the temperature rose to 104·1°. She is very thirsty, and tongue is brown, dry, and irregularly fissured."

The septicæmic symptoms did not abate in severity, and patient died on the morning of February 1. No collection of pus was detected in any part of the body, and the case was apparently one of septicæmia, with no starting-point beyond the small aperture of an old abscess. On examining the body post-mortem, however, it was found that there were a number of small sinuses burrowing in the substance of the pectoralis major, and one of larger size leading towards the sternal end of the clavicle. Towards the axilla there was a small abscess-cavity; and the various sinuses and this cavity were lined with a dark deposit of organised lymph, and full of thick, yellowish pus. There was nothing in the organs of the body beyond what is usually found in cases of septicæmia. The interest of the case lay, first, in the appearance of an abscess caused probably by the irritation of the cicatrix, and giving rise at one time to the suspicion of glandular infection, and next, in the septicæmia, which evidently arose from a burrowing abscess which showed no external signs of its presence.

CYSTIC TUMOUR OF THE BREAST—REMOVAL.

(Under the care of Mr. BELLAMY.)

Emily G., aged twenty-six years, single, was admitted on December 2, 1878. She stated that her mother died seven years before from the effects of an ovariotomy operation. Her father was alive; he had frequent rheumatic attacks. She had three sisters and one brother, all healthy. She herself had always been in fairly good health, although not robust. All her natural functions were normal. About eleven months ago she first noticed a small lump, about the size of a marble, at the lower part of the left breast. It appeared to be quite hard, and to be fixed to the deeper tissues. This lump caused her great pain, so much so that she could not lie on that side. It gradually became larger, and she noticed that she suffered occasionally from palpitation after exertion. She was not aware of any exciting cause for the appearance of the tumour.

On admission, patient was a slightly built, somewhat sallow-complexioned woman, but well nourished, and not looking unhealthy. Immediately below the left nipple, but

not involving it, was a tense, semi-fluctuating tumour as large as half an orange. Its base was flattened towards the chest-wall, and the growth was convex externally, and longer from side to side than from above downwards. It was evidently fixed to the deeper structures beneath. There was no enlargement of the axillary glands. The mammæ were not much developed.

December 4.—The tumour was to-day punctured with a fine trocar, but no fluid was obtained.

7th.—To-day, patient being anæsthetised, Mr. Bellamy cut down upon the tumour; and on making an incision into it it was found to consist of a sac filled with broken-down blood-clot. The wall of the sac was found to be adherent posteriorly to the ribs and intercostal muscles, and was with difficulty dissected off. The surfaces of the ribs were considerably roughened. There was very free bleeding during the operation, which was conducted antiseptically. On examining the structure of the solid parts of the tumour many spindle-shaped cells were found along with a fibrillar tissue.

10th.—Patient has done well since the operation. She complains of no pain, and her temperature this morning is 99°.

12th.—Wounds healthy and antiseptic. To-day the stitches were removed.

19th.—The wound has almost healed, and patient is free from pain, and in excellent health and spirits.

January 1.—For some days patient has been complaining of tenderness above the scar of the incision, which has now quite healed. There is a doubtful swelling there, and patient states that she has now the same feeling in the breast that she had when the tumour already removed first made its appearance.

10th.—Patient left to-day, to attend for further observation. There is now a distinct swelling on the level of, and external to, the left nipple. Mr. Bellamy believes that the growth removed was of a sarcomatous nature, and that the present is a recurrent growth of the same structure.

SCIRRHUS OF THE BREAST—REMOVAL.

(Under the care of Mr. BLOXAM.)

Sarah M., aged forty-four, single, a cook, was admitted on January 23, 1878. She states that her mother died, aged fifty-six years, of cancer of the womb; her father died, aged sixty-five years, of bronchitis; and she had two brothers who died of "consumption," one aged thirty-seven years, the other aged fifty-one years. When patient was about twenty years of age she suffered from some skin disease about the face, which, from her description, seemed to have been scaly eczema. This lasted for many years. From the age of twenty-eight to thirty she suffered a great deal from boils, chiefly in the axillæ and about the shoulders, but beyond this she had not had much illness of any kind. About twelve years before admission, she first noticed a little hard substance near the axillary border of the right mamma. This gradually increased in size, but until twelve months before there was no pain connected with it. About that date the mass began to be painful, and shooting pains started from it, and extended round the back, into the arms, and all over the body. During the three months before admission, the tumour, she observed, became more superficial, redder, and more painful. She also lost flesh, and her general health during that time became much impaired. Her menses were, and always had been since puberty, normal and regular.

On admission, the patient was a spare, nervous-looking woman; complexion unhealthy; the skin and face rough and covered with acne. She stated that her appetite was fairly good, she slept well, and all her natural functions were normally performed. On the outer side of the right mamma, extending towards the axilla, was a raised, reddened swelling, of stony hardness, extending into the breast on one hand, and into the axilla on the other. Several axillary glands could be felt to be enlarged and hardened, and there was also some induration of supra-clavicular glands. The left breast was normal.

January 24.—Mr. Bloxam to-day removed the whole of the right breast, and, extending his incision towards the axilla, removed several enlarged and indurated glands, operating antiseptically. The growth was a scirrhus cancer.

30th.—A great part of the wound has healed, and patient keeps in a satisfactory condition. She is apparently easier in her mind, and improves in appearance.

February 10.—The antiseptic precautions were left off to-day, the wound having healed except a small part near the axilla, which is open and suppurating, but healthy.

Until February 19, when patient left, there was nothing of importance to note in her case.

Patient appeared again in the end of March, stating that she had lately been disturbed with pain in her left breast, similar to what she had experienced formerly in the right. She also stated that she felt some hardness about the lower part of the mamma, and was evidently troubled with the idea that she had the same disease recurring. On examination, however, nothing to support this notion could be made out, and the application of belladonna relieved the pain and soothed patient's fears.

ST. PETER'S HOSPITAL.

IMPASSABLE STRICTURE OF THE URETHRA—BOUTONNIÈRE OPERATION—GOOD RESULT.

(Under the care of Mr. TEEVAN.)

WILLIAM B., a labourer, thirty-seven years old, was admitted into the hospital on March 20, 1873.

History.—Has had four attacks of gonorrhœa, the first one twenty years ago, which was treated by medicine only; was long troubled with a gleet; never had an injection. Cannot fix the dates of the other attacks of clap. About sixteen years ago he commenced to suffer from frequent and difficult micturition. Fourteen years ago he had an attack of retention of urine, which was relieved by medicine. Eight years ago he had a second attack, for which he went to St. Bartholomew's Hospital, where a catheter was passed and he was relieved. Since then he has had three more attacks, the last one being three years ago. Last October he began to wet his bed; and for the last four months has been unable to pass a stream of urine, his water dribbling away night and day *guttatim*. Has had rigors twice, and has suffered much pain in the loins.

Condition on Admission.—Is very debilitated, and has lost much flesh of late. A very urinous smell emanates from the patient, as his water is perpetually dribbling away; and his private parts are excoriated from irritation of urine. Suffers much pain in loins. There was much muco-pus in his water.

Treatment.—For some time before the patient's admission he had been under the care of Mr. Teevan as an out-patient; but as no instrument of any description could be introduced, he was advised to become an in-patient. For one fortnight he was kept in bed, purged, and taught to pass a full-sized bougie down to the stricture, and to keep it pressed against the face of the contraction for half an hour every day. Every other day Mr. Teevan tried, without success, to pass various soft and metal instruments. On April 3 the patient was put under the influence of gas and ether by Mr. Knott; and Mr. Teevan tried in vain to introduce fine bougies and metal catheters. A straight staff was then passed down to the stricture, which was five inches and a half from the meatus externus, and the urethra was opened by Mr. Teevan just below the attachment of the scrotum to the perineum. With fine whalebone bougies he next tried to discover the entrance into the strictured portion, but was unable to do so, and had to dissect on bit by bit till he arrived at the pervious urethra beyond. A large catheter was then introduced into the bladder, and immediately withdrawn as soon as the urine had escaped. About four hours after the operation there was some hæmorrhage, which was checked by ice. There was but little constitutional disturbance after the operation, and there was no rigor; the patient making an uninterrupted and rapid progress. On April 12 all urine came by the penis; and on the 16th the patient left the hospital quite well, with the wound healed. The treatment after the operation consisted in passing a full-sized metal "bougie à ventré" every third day. The patient was told to attend as an out-patient in order to learn how to pass a catheter for himself.

THE HUNTERIAN COLLECTION.—At a meeting of the trustees of the Museum of the Royal College of Surgeons, on the 14th inst., Lord Arthur Russell, M.P., was unanimously elected a trustee of the collection in the vacancy occasioned by the decease of his uncle the Earl Russell.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 22, 1879.

THE MEDICAL COUNCIL AND MEDICAL LEGISLATION.

It will be remembered that during the short session of Parliament held in December last it was authoritatively stated that Government intended again to introduce, and hoped to pass, this year a Medical Acts Amendment Bill; and it was further stated that it was not proposed to introduce into that Bill any provisions regarding the constitution of the General Medical Council, as Government considered that they had not yet sufficient knowledge of the subject to justify their meddling with it. It was generally felt that this announcement would, as a matter of course, lead to a meeting of the Medical Council before the re-assembling of Parliament, in order that the Council might carry out the resolution, passed without a dissentient voice in July last, that its constitution needed revision; and might redeem the pledge then given, that it would consider "what modifications of its constitution are demanded and are required," and would report to Government the result of its deliberations. It was obviously most important that the opinions of the Council upon this subject, and upon any desirable amendments of the Medical Bill, should be made known to Government before their Medical Acts Amendment Bill was settled; and this was the more necessary, as the Government has not now any acknowledged official medical adviser. But Parliament is again sitting, and there has not been any meeting of the Medical Council, nor has any sign yet been given of when it will meet. It is true that the time of the Executive Committee of the General Council, to whom was delegated the important duty of preparing a report on the present constitution of the Council, and on any changes likely to promote its efficiency, has been very largely occupied by the working of the Dentists Act; but we have some reason for believing that their report has been agreed upon, and has for some days been in the hands of the members of Council, and yet the Council have given no sign of life. Meanwhile, the Government are not sleeping over the matter. In answer to a question put in the House of Commons on Friday last, Lord George Hamilton stated that Government had not received any communication from the Medical Council on the subject of the working of the Council; that they considered that the amendment of the Medical Acts as regards education, foreign diplomas, education of midwives, and other important matters contained in their Bill of last year, can proceed without prejudicing the subject of the Medical Council; and that they desire to obtain further information before coming to a decision, and propose to institute an inquiry into the subject of the constitution of the Medical Council. The Government are, we must suppose, tired of waiting for, or do not set much value on, the opinion of the Medical Council; and it is perhaps at the least as well that they should, by means of a Select Committee, or in some other way, institute an inquiry for themselves into the subject. But that cannot excuse the dilatoriness of the Council in the performance of its self-imposed task.

It is surely very unfortunate for the reputation of the Council that it should be so sluggish in action at this time. Its own special and chief work, the care of medical education, which is altogether incomplete, has for some time been completely at a standstill, while the Council has allowed itself to be burdened with the additional large duty of supervising and regulating the education, etc., of dentists; it has undertaken the consideration of the question of its own constitution; and it will have again to consider and watch over the passage of a Medical Acts Amendment Bill. It might very well, we venture to say, have had before February, or at any rate before the reassembling of Parliament, a session during which it might have got through the work of considering, and reporting to Government on, the reforms, if any, needed in its own constitution, and have also examined the intended Government Medical Bill, and decided on what amendments, if any, it may require, as there could not, we imagine, have been any difficulty in obtaining a knowledge of the changes that Government may have made in the Bill of last year. And then the way would have been so far cleared that the Council might have fairly hoped to have been able, in a later session, to take up again the real work that it was appointed to do. As it is, the Council will probably be unable to influence in any important degree the character of medical legislation; educational subjects will again be postponed for want of time to consider them; and the influence and value of the Council may be seriously discredited in the eyes of the profession and the public.

THE HUNTERIAN ORATION.

Among the large audience that on Friday last filled the Theatre of the Royal College of Surgeons to hear Professor Humphry's Hunterian Oration, there must have been very many who sympathised with the orator in his strictures upon, and warnings against, the system of education of the day; or rather the system of facts-piling-up and examination which is being more and more made to do duty for education. Examinations have been multiplied, and increased in severity till it begins to look as if the sole aim in life, through boyhood, youth, and early manhood, is to pass examinations. Examinations have become, as Professor Humphry said, "the despots of education"; and, in consequence, the great object of teaching is to cram the memory with facts instead of to educate the power of thought. And there are probably few observant and thoughtful men who do not begin to suspect that one of the greatest problems of the day is how we may educate as well as instruct,

instead of being content with combining the maximum of instruction with the minimum of education.

As the roll of the Hunterian Orators of the Royal College of Surgeons grows in length, the honour of being appointed to give the Oration must more and more be regarded as rather a burdensome and perilous one. On the present occasion, indeed, that feeling must have been especially strong; and hardly any member of the Council of the College can, we imagine, have coveted the onerous distinction of immediately succeeding Sir James Paget, of whose exhaustive and eloquent discourse on Hunter's character, life, and works, men still retain a vivid recollection. Professor Humphry, however, on whose shoulders the burden was placed, very felicitously made use of the opportunity, and of the chief characteristics of Hunter's mental gifts, to speak of the defects and the dangers of the present system, and of the tendency of the education of the present day. He described Hunter as having been not a genius in the ordinary, if not the proper, acceptation of that term; as "not a man of bold suggestions and sparkling ideas which glitter from afar, and stimulate aspirations, and carry men away, and which may either prove *ignes fatui*, or may be beacons along the high road of truth"; but as one who simply, quietly, observingly, and thoughtfully plodded along the road of search for truth. The two salient, all pervading features of his character and life, were "work" and "thought," or "observation" and "reflection"; and the well-balanced proportion of pure work and strong thought which he everywhere displays, was the basis of his success and of the influence which he has excited. The consequence is, the orator observed, that "the pride of modern research and boasted intelligence is humbled by a short conference with Hunter's writings, where the observed facts are so many, and often yet so new, where the reasonings are so fresh and so sound, and, above all, where the philosophic blending of fact and thought is so striking, so masterly, and so all-pervading, that as mines of material as well as models of thinking, as examples of how to dig and how to use the treasure, in short, as media of real instruction, they are still paramount."

Professor Humphry next spoke at some length of Hunter's speculations and researches on the subject of life; and then, pointing out that sound theory and sound practice must go hand-in-hand, and that surgery, the most practical of all sciences, is no exception to the law which rules all science—the law that thought is the polar-star of work,—he showed how well Hunter recognised that pathology is the keystone of surgery, resting upon a wide-reaching study of physiology on the one side, and on careful clinical observation on the other. Surgery is to be advanced by the good adjustment and reciprocating influences of the practical and the scientific, or of work and thought; and Hunter has stated in his "Principles of Surgery" that his object was to "fit his pupils to act as occasion may require, from comparing and reasoning on known principles." And he further has said, "Too much attention cannot be paid to facts; yet too many facts crowd the mind without advantage any further than they lead to establish principles." These words, the Professor says, "give the very marrow of sound teaching," and should be graven deep in the walls of every school, and in the heart of every teacher. And this leads to the question, Why does our system of teaching contrast so sadly with that of Hunter? Why do we cram rather than rationally educate our students? The first reason is, he says, that the mass of facts in every branch of science has increased and is increasing enormously. Each of the many hills upon which the science of medicine is based has been heightening, widening, and separating from the others, and growing into a mountain. No one can climb them all. But the level of qualification to practise must be reached somehow, and that quickly; and therefore difficulties must be smoothed or skimmed over. "There is danger of too much teaching and too little education, of too much pushing and dragging, *alias* coaching, and too little self-help, of too much of being got up the paths of knowledge and too little getting up." The time of pupilage has become a period of struggle, and cram, and painful visions of insatiable examiners. And here we come upon the second great cause of the present education system. "The examinations are growing annually in extent, in importance, and in influence. They have become the directors and regulators, the despots, of education." Teachers and students alike must conform to their behests, and must work for them; and publishers find the readiest sale for those books which quickest prepare for the examination standard. Of course they are necessary as tests of knowledge. Moreover they provide a stimulus to work, which the majority of students need, more or less. They are also, or ought to be, useful as educators, by compelling the student to making his knowledge clear, precise, and producible; and make him cultivate the faculty "of concentrating his mental batteries, and bringing them to bear quickly and effectively upon the required point." But the great evil of them "is their tendency to make facts preponderate over thought, and so to add to the accumulating weight of that heap which oppresses the student and smothers his aspirations and interest in his work." And no doubt it is an easier and quicker procedure to test a student's knowledge of a fact than his capacity and habit of thinking upon and turning the fact to account. Professor Humphry illustrated the effect of all this by pointing out how anatomy is and how it might be taught, and observed that, as things are, teacher and student feel that their pattern "must be that of Hunter's Chinese philosopher, whose knowledge consisted only in facts," and partakes little of the similitude of his European "who reasons from principles and thus accounts for facts." The remedy is to be found, he thinks, in a gradual alteration in the quality of examinations. "They might well afford to be less exacting in the amount and variety of detail and circumstance, and to throw somewhat more weight into the scale of intelligent appreciation of the knowledge possessed. . . . They should not be considered merely as tests of fitness for certain positions and rewards, but even more as educational agents, as the guides of teaching and study. Every question put must be regarded as a drop in the educational current of the future; and examiners must recognise that they are not simply judges of the students who come before them, but that they are, in no less degree, directors of, and so responsible for, the teaching of those who will follow." Teachers and examiners must work together to promote the acquisition of "good, clear, solid, intelligent, producible, and available knowledge of the kind that will be useful in after-life." Professor Humphry thinks that it is a hopeful feature of our time that teaching is beginning to be regarded as a science, to be made a subject of special study; that people are to learn how to teach. Doubtless it is; but we would add that the art of examining ought also to be studied and taught. It is a very difficult art, and a thoroughly good examiner is a rarity, though it is a general idea that almost anyone can examine. So, perhaps, anyone can—in a way; but very few can examine well.

All these observations of the Hunterian Orator apply equally, at the least, to the system of general education; and the evil influence he speaks of affects, as he remarks, the whole educational system throughout the country. Examination is becoming the be-all and end-all of the educational career. Everybody must know something of everything, and that for the sake of passing examinations; so that the whole of the period of education is coming to consist

of examinations, and of intervals of preparing for examinations. As to the teaching of our profession, we think that one of our greatest needs is a better preparation of the students before they enter on professional study. Hunter, indeed, was not what he was by grace of education, but by the grace of God. He owed very little, or nothing, to early education, but he was endowed with rare mental powers and gifts, and was great in spite of his want of education. We ought, as far as possible, to educate our medical students as he tried to educate his pupils; but we need to have much improved materials, and much better foundations to work on, than we get in the great majority of cases. The reform in teaching must begin in the primary and secondary schools of the country, before we can, as a broad rule, hope to do much more than cram in knowledge, some of which we must hope will remain after examinations have been passed, and be digested when a more leisurely period has succeeded them.

THE BANE AND THE ANTIDOTE.

In the January number of the *Fortnightly Review* there appeared a paper from the pen of Mr. W. Gilbert, a gentleman who, it seems, passed the College of Surgeons some fifty years ago. Its subject may roughly be described as the depravity of the modern medical student and the causes thereof. We are somewhat at a loss for appropriate terms wherein to describe this production—whether to admire most the astounding ignorance or the wilful waywardness of the writer, his reckless assertions or his prodigious blunders. But in publicly asserting that out of 2000 medical students assembled in London, 400 of them last year came under the notice of the police, and again in saying that more medical students misconducted themselves in London last winter session than the students of all other professions put together, not excluding those of the Universities of Oxford and Cambridge, Mr. Gilbert has exceeded not only the bounds of decorum, but the limits of pardonable misstatement. It is never safe to malign a whole class; injustice is sure to be done. But when this is done as Mr. Gilbert has done it, without taking any precaution, he has committed something worse than a fault. As an antidote to this production of Mr. Gilbert's, Mr. Brudenell Carter has assumed the pen in the *Contemporary* for this month, and the least we can say of his contribution is that its style is a model compared with Mr. Gilbert's, though it does not seek to refute one by one Mr. Gilbert's untenable propositions. Indeed, that would be hopeless, for, as Mr. Carter says, "A well known medical teacher has remarked that he could not have believed it possible for human ingenuity to compress so many misstatements into so short a composition."

But to return to Mr. Gilbert. It is not easy to follow the thread of his argument (we do not vouch that there is either thread or argument), but after throwing as much dirt as he can at the student, he begins to inquire as to the causes of the disreputable condition of things pictured, or rather imagined by himself. So he says, "It will very probably appear that the fault lies considerably more with their teachers and the bad organisation of our medical schools, than in the natural manners and habits of the students themselves." Thus the students are first of all called blackguards, and next the public is told that the poor things can't help it—it is all a part of the system! We must confess that for this we have as yet discovered no panacea, though Mr. Carter seems to have done so in the "Conjoint Scheme" and the three Examining Boards. As to the teachers, Mr. Gilbert promptly falls foul of certain hospitals a portion of whose funds has been applied to the well-being of the schools. His argument here—if there be an argument—we cannot follow except in this way: that hopelessly incompetent teachers are bolstered up by a misapplication of these endowments, so that the ingenuous student is utterly corrupted and contaminated by the very atmosphere which he breathes on entering these dens of corruption. If this be the argument, as we said before, we leave every reader's common-sense and practical knowledge, acquired something less than fifty years ago, to answer it.

But the next part of the story is, if possible, more ludicrous than the former. Mr. Gilbert proceeds to compare that sink of iniquity, St. Bartholomew's, with University College. Had a Frenchman, or even a German, written this paragraph, we could have understood what was wrong, but a gentleman who voluntarily takes upon himself the task of writing on the London medical schools might have been expected to be able to spell the names of the teachers cited in the paragraph referred to. But we find for Charlton Bastian, Charles Bastian; for Graily Hewitt, Grady Hewitt. We find Sir George Burrows, Sir James Paget, Dr. Harris, and Dr. Greenhalgh still included in the active staff at St. Bartholomew's; and there, too, we find a gentleman named Burnon (Vernon, we suppose) on the ophthalmic staff. When a gentleman comes forward as a professed instructor of the public, we would suggest that he might be a little more careful even in such details as these.

But Mr. Gilbert seeks next to inquire who should bear the blame for the melancholy state of affairs which exists in his brain. And if we may be allowed to infer anything from another passage, the great evil thing, in his eyes, is the existence of music-halls. How such an idea could have arisen even in Mr. Gilbert's perturbed brain it would be hard to conceive. Our acquaintance with medical students has not been small, but our impression is, most decidedly, that such haunts are, as a rule, pronounced low and avoided. But that inner sense of the wickedness of medical students and of their ways, which seems so overpowering in Mr. Gilbert, may have taught him otherwise.

It is, however, the mode in which Mr. Gilbert tries to prove his point—what we may call a true *reductio ad absurdum*—which constitutes the cream of the piece. He sets about it in this way. Look, says he, at the Medical College, Calcutta; see through what difficulties it has gone; and now see the result! Native students are turned out from it who can answer questions as difficult as any set in England; and they all pass too. And why do they pass? Because, says he, there are no music-halls or similar places of amusement (poor Mr. Gilbert!) in Calcutta. We do not intentionally, if we do at all, misstate Mr. Gilbert's argument; but if read aright it surely amounts to this. All honour to the pluck and perseverance of the men who made the Calcutta Medical College what it is! But the same spirit of fortitude and determination exists in those who follow in their footsteps, and will equally show itself in their superiority over Indian students, whatever examinations they may pass, here or elsewhere.

It would be hard to follow Mr. Gilbert in all his various phases of ingenuity in going wrong, but we can scarcely avoid referring to his next point, which may be taken as typical. This is as regards patients. Mr. Gilbert complains that sometimes, after a patient has been in hospital for some weeks without any improvement, he is quietly told he must go. Mr. Gilbert would have him stop as long as he likes—till dead or till cured. Any one of our readers can understand the absurdity of this. We should speedily have a complete block: all beds occupied; no new cases, however serious, could be admitted. Yet people not practically acquainted with such matters might take this visionary nonsense as truth.

One more of Mr. Gilbert's "digs," and we leave him.

A great number of cases are, says he, entirely treated and attended to by students not qualified, and especially midwifery is so looked after. Now, as regards the former assertion, it is partly true, partly untrue; students look after the dressing, and so the patients may be said to be under their charge, but they are always under superintendence; whilst, if students were not to attend midwifery, where would our practitioners come from?

We need not spend much time over Mr. Brudenell Carter's reply, for he deals shortly and tersely with Mr. Gilbert; the rest is rather directed to the outside world. Thus, first he divides medical students into certain categories, according to their homes, belongings, and characters, recognising, as all must do, a "ne'er-do-weel" class, hopeless from the first. Next, he does ample justice to the great success which attends the work of the maternity departments in connexion with our great schools; whilst the rest of his article is mainly devoted to an account of our ordinary medical education and examination system, though what these or the Medical Act have to do with Mr. Gilbert we hardly see.

THE WEEK.

TOPICS OF THE DAY.

THE strong reinforcements about to be sent to Natal will necessitate a large augmentation of the medical staff at present doing duty in the colony, and to meet the requirements of the force in this direction about thirty medical officers have already been put under orders for immediate embarkation. In addition, a further number of civilian surgeons have applied for, and received, temporary appointments for the war at the Cape, and the Army Medical Department has so far been enabled to meet all the demands made upon it. But there is a limit to all things, and it should certainly by this time be apparent to the Secretary of State for War that no further delay ought to be permitted in issuing the long-looked-for Warrant which is to redress all causes of complaint, and insure a steady flow of candidates for the Army Medical Service in future. Some of our contemporaries have published rumours as to the basis upon which this new Warrant is to be framed, but we are inclined to think that, beyond the fact that these rumours point to the general adoption of the recommendations put forward by the Committee which some time ago reported on the Department, nothing definite is yet known of Colonel Stanley's intentions. Before it is yet too late we feel bound once more to point out to the authorities the immense satisfaction with which such a partial return to the regimental system would be hailed, as might be comprised in the appointment of one medical officer to each regiment. Even admitting that there are certain difficulties attendant on such an arrangement, the gain to the Department by once more restoring the prestige of the Service in the eyes of the medical profession, ought far to outweigh any minor considerations of trouble or expense, and it will, we think, be found that no Warrant will secure unqualified success which does not contain some provision of this description.

At a recent meeting of the Whitechapel District Board of Works an important question was discussed, arising out of the refusal of the East London Water Company to carry water up to a height of over forty feet. The sanitary officers reported that, in consequence of complaints, they had visited the Peabody-buildings in Commercial-street, which are occupied by seventy-one families, numbering about 300 persons. The superintendent reported that for several weeks past there had been an insufficient supply of water, and the occupants had had to carry what they required, in pails, from a tap in the basement to the top of the building. The cisterns in these buildings are forty-five feet above the ground, and although the supply of water to them had never been complained of for the past fourteen years, the Company, on application, explained that they were not compelled by law to carry their supply higher than forty feet. Several complaints of the same description had been received throughout the whole of the East of London. The Chairman of the Board pointed out that this was a most serious question, as owners of property would have to make other arrangements for the supply of water to their tenants, otherwise the Board, on sanitary grounds, would have to enforce the closing of the premises. It was also shown that this was a very important matter in view of the proposed extension of the artisans' dwellings schemes in the district; if water was not to be had at a greater height than forty feet, it would constitute a difficulty in regard to these dwellings, and also put out of the question the utility of providing hydrants. It was finally resolved that the matter be brought under the notice of the Board of Trade, and the subject was accordingly referred to one of the standing committees.

At the annual Court of the Governors of Charing-cross Hospital, which was held last week, the report presented showed that, owing presumably to the depression of trade, and still more to the lack of attention to the necessities of such an institution by the inhabitants of the district surrounding it, as well as by the inhabitants of the metropolis generally, there was now a large deficiency in the funds. The income of the Hospital is only about £3000, while the cost of maintaining the beds amounts to about £12,000 annually. The Council acknowledged the substantial help given them in June last, when, in answer to their special appeal, sufficient donations were received to pay the outstanding accounts, and, as it was shown by the report that 18,038 patients had been treated during the past year, 1638 as in-door patients, it is to be hoped that the great usefulness of the institution will recommend it to the consideration of the charitable public.

The Metropolitan Board of Works last week obtained a conviction at the Westminster Police-court, under the Infant Life Protection Act, against a widow residing at Brewer's-place, Pimlico, for receiving, for hire or reward, more than one infant under the age of twelve months. There were special circumstances in this case which it was thought desirable to bring before the magistrate. When the inspector went to the house the woman denied having more than one infant under her charge, but subsequently she admitted that she had two under her care under twelve months old, and two above that age. The defendant lived in a small two-roomed cottage with her mother and these four children, and the cubic measurement of the rooms was not half that prescribed by the law. Mr. D'Eyncourt thought there would be greater cruelty to children over twelve months in such cases, and it was admitted that the Act was deficient in many provisions: it should have protected infants certainly up to five years of age. In the present instance the rooms were clean and comfortable, and the children seemed well cared for. The magistrate, taking these facts into consideration, in lieu of six months' hard labour, inflicted a fine of £5, which was immediately paid.

The quarterly return of the Registrar-General for the period ended December 31 last, affords convincing proof of the fatal effects of the late severe winter upon all ages of the community. The largest proportional excess in mortality of course occurred among persons aged upwards of sixty years. The death-rate at these ages was equal to 83·7 per 1000, and was considerably higher than in any corresponding quarter since 1870, when the new form of quarterly return

first afforded the means of calculating the death-rate of persons at different ages quarter by quarter. The death-rate among persons aged upwards of sixty years in the twenty large towns during the December quarter averaged 89·6 per 1000, and ranged from 72·3 and 72·7 in Nottingham and Portsmouth, to 106·6 and 110·2 in Manchester and Wolverhampton. Taking the mortality of the mild autumn quarter of 1877 as a standard for comparison, the excess of mortality last quarter, due to the low temperature, may be stated in the following manner. Among persons of all ages the excess was equal to 12·4 per cent.; it was 8·8 per cent. greater among infants under one year of age, 7·8 per cent. among persons aged between one and sixty years, and so great as 24·7 among persons aged upwards of sixty years.

Our contemporary *Nature* learns that the scheme of the Scotch Meteorological Society for establishing a station on Ben Nevis is evoking cordial support from those who have the administration of Government funds available for such objects. The London Meteorological Council, of which Professor Henry Smith is chairman, has unanimously agreed to offer to the Scotch Society £100 yearly towards the support of the station, provided a copy of the observations is sent regularly to London. To uphold the station, and induce two competent observers to take it by turns to live on the top of the mountain with an assistant, will cost about £300 yearly. It is estimated that to purchase a full stock of instruments, and to erect a building for them and the observers, a capital sum of £800 will be required. The Scotch Society has applied for a grant of £400 towards this expenditure from the Committee appointed by Government to distribute £4000 annually to encourage scientific research. The Committee, it is stated, has not yet met to consider the various claims made on the funds.

In accordance with the arrangements previously announced, the celebration of the centenary of Sir Humphrey Davy was held at Penzance last week, the proceedings eliciting the cordial co-operation of several scientific bodies and of the members of Parliament for the district. An exhibition of scientific apparatus in St. John's Hall was one of the features of the celebration, and to this the Science and Art Department of South Kensington, the Royal Institution of Cornwall, the Royal Geological Society of Cornwall, the Royal Society, and several private persons, largely contributed. At the opening ceremony the Mayor of Penzance congratulated his fellow-townsmen on the exhibition which had been got together to do honour to Sir Humphrey Davy, and expressed his opinion that the town had good reason to be proud of having been the birthplace of such a distinguished chemist and man of science. Sir John St. Aubyn, M.P., and Mr. Vivian, M.P., also addressed the meeting, and alluded in strong terms to the debt which society owed to the inventor of the safety-lamp, which had been the means of saving so many lives. In the evening the hall was illuminated by the electric light.

The question of obtaining a further water-supply for Ludlow has been for some time under consideration, and at a meeting of the Town Council, held last week, it was decided to adopt the Burway scheme, in preference to the Gotto and Basley's scheme, the former having been recommended by Mr. Curley, C.E., of Hereford.

Her Majesty has been pleased to approve the appointment of Mr. W. W. Smyth, F.R.S., Sir George Elliot, M.P., Mr. F. A. Abel, C.B., Mr. Thomas Burt, M.P., Mr. R. Bellamy Clifton, F.R.S., Professor Tyndall, F.R.S., Mr. Lindsay Wood, and Mr. W. T. Lewis, as Commissioners for the purpose of inquiring and reporting whether—with respect to the influence of fluctuations of atmospheric pressure upon the issue of fire-damp from coal, to the adoption and efficient application of trustworthy indicators of the presence of fire-damp, and, generally, to systematic observation of the air of mines, to improved methods of ventilation and illumination, to the employment of explosive agents in the getting of minerals, and to other particulars relating to mines and mining operations—the resources of science furnish any practicable expedients that are not now in use, and are calculated to prevent the occurrence of accidents, or limit their disastrous consequences.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An extraordinary meeting of the Royal College of Physicians was held, in obedience to a summons by the President, on Tuesday last, to consider what steps should be taken by the College, in the interests of the public, in view of the reported existence of the plague in the East of Europe. In the course of a statement made to the Fellows in explanation of the reasons which had led him to call a meeting of the College, the President stated that since his summons had been issued he had received a letter from the Lord President of the Privy Council, the Duke of Richmond and Gordon, containing a request that the College would nominate a fit and proper person for the Government to send out to investigate the nature of the plague, now existing in the East of Europe; and that he had had an interview with the Lord President on the subject of his letter. After some discussion as to the best method of obtaining the desired knowledge concerning the plague, the College resolved that a committee should be appointed to obtain information, and to report to the College, of the nature of the disease called the plague, now raging in Russia, and on the best means of its prevention and treatment, and further to nominate proper persons to proceed to the East for the purpose of personally investigating the disease.

A somewhat lengthy discussion was held, we believe, as to the terms of the reply to be made to the request of the Government. The College felt that advantage ought to be taken of the present opportunity to obtain the fullest and most accurate information possible concerning the plague, and were unanimously and very decidedly of opinion that it would be a great mistake, such as might lead to a very imperfect result, to send out only one person to undertake the necessary investigations. It was generally felt that a commission of, at the least, three persons ought to go out; and there was some question as to the best way of expressing to the Government very courteously, and yet very clearly, the opinion of the College on this point. In the end it was resolved—"That the College, whilst cordially accepting the offer of the Lord President that the College should nominate a fit and proper person to go out to the East, to investigate the nature of the plague, desire to express their unanimous opinion that more than one member of the medical profession should be named for that purpose; and desire that the President of the College should represent their views on this matter to the Lord President." This, we understand, the President undertook to do in the strongest way possible, as he entirely concurred in the opinion held by the College on the subject.

The following Committee of Inquiry was then nominated:—The President, Professors Acland and Paget, Sir William Gull, Sir William Jenner, Sir Joseph Fayrer, and Drs. Barclay, Burdon-Sanderson, Murchison, Broadbent, and Pye-Smith. The Committee to have the power to associate with any non-collegiate person, who, in their opinion, is specially fitted to give them useful information.

SUNSHINE AND HEALTH.

If, as there is no reason to doubt, an average amount of sunshine is necessary for vigorous health, it is not diffi-

cult to understand that the increased rate of mortality recorded during the past three months owes something to the almost entire absence of the sun's rays during the time we are accustomed to look for their warmth-giving and cheering presence. Such an uninterrupted period of dull, dark days as that recently experienced may be said to be quite exceptional, and we quote from some of the reports made at the Royal Observatory, Greenwich, week by week, in confirmation of these remarks. For the week ending December 28 last the duration of registered bright sunshine in the period was 3·6 hours, although the sun was above the horizon during 54·2 hours. The recorded duration of sunshine was only, therefore, equal to 7 per cent. of its possible duration. For the week ending January 4 last the registered amount of sunshine was 4·7 hours out of 55 hours during which the sun was above the horizon, which is equal to 9 per cent. of possible duration. Again, in the week ending January 18 last, only 4·8 hours of sunshine appear recorded out of 57·9 hours' duration, which is equal to 8 per cent. But the climax would seem to have been reached in the week ending the 1st of the present month, for during that period no sunshine whatever was recorded, although the sun was above the horizon for the increased period of 62·5 hours. In seeking Mediterranean winter health-resorts it is certain that if the invalid does not always escape a certain amount of piercing cold, he is at least not entirely deprived of the enlivening and health-giving rays of the sun, and he escapes the long period of depression experienced in and around London during such an exceptionally sunless period as the three months just passed. During the whole of the year 1878 the number of hours of bright sunshine registered at the Royal Observatory, Greenwich, was only 1250, or 28 per cent. of its possible duration, the sun having been above the horizon for a total period of 4454 hours.

DR. TIDY ON THE WATER SUPPLY OF LONDON FOR 1878.

THE annual report for the year 1878, submitted by Dr. Charles Meymott Tidy to the Society of Medical Officers of Health, on the quantity and quality of the water supplied to London during the period under notice, shows that of the (say) 130,000,000 gallons constituting the daily supply of the metropolis, about one half, or 65,000,000 gallons, is taken from the river Thames; 57,000,000 gallons from the Lea and New River, and the remaining 8,000,000 gallons from deep chalk wells. The number of houses supplied by the eight companies during the year exceeded by 15,837 the number supplied in December, 1877, which proves that the gigantic task of providing London with water is, year by year, calling for increased energy; up to the present time, however, Dr. Tidy states that the companies have not failed in the duties they have undertaken. The waste of water in London is shown to be enormous—a fact mainly due to the intermittent system still largely in use, but which is fast giving way to constant supply. From tables furnished by Dr. Tidy it will be seen that the quality of the water supplied has been uniformly good, the samples taken for analysis having been collected from the mains of the several companies without their officers having any knowledge of the time when the water would be drawn. Of the five companies drawing their supply from the Thames, the order of purity was as follows:—Chelsea, Lambeth, Southwark and Vauxhall, Grand Junction, and West Middlesex. The New River water maintained throughout the year its accustomed remarkable purity, whilst the water supplied by the East London Company was also of excellent quality. In summing up his report, Dr. Tidy states, therefore, that the water-supply of the metropolis during the year 1878 was satisfactory both as regards quantity and quality.

REPORT ON THE HEALTH OF ST. MARYLEBONE.

DR. JOHN WHITMORE'S report on the health of the parish of St. Marylebone, for the month of January last, records an exceptionally high death-rate, entirely due to the exceptional rate of mortality from bronchitis and other diseases of the respiratory organs, consequent upon the low temperature which prevailed throughout the entire month. Every night, with one exception only, he states that the temperature fell below freezing-point, the average of the month having been 27·3° Fahr. (on one occasion it fell as low as 16° Fahr.); and the highest day-temperature was also frequently below 32° Fahr. As many as 452 deaths were registered in the parish during the month, equal to an annual death-rate of 28·88 per 1000 of the population of the district. This rate was 1·32 per 1000 less than in the previous month, but 2·76 per 1000 in excess of the corresponding month of last year. The number of deaths registered from bronchitis was ninety-nine; of these eighteen were children under the age of five years, and sixty above the age of fifty years. The unusually large number of twenty-nine deaths were registered as occurring from "old age"; but, Dr. Whitmore adds, there is no doubt that a very large proportion of these aged persons were struck down by the prolonged intensity of the cold. The deaths from zymotic diseases were below the average, but so many as six deaths from croup were recorded, which is noticed as a singularly fatal mortality from this disease for one month, as during the whole of the past year the number of deaths from it in the parish did not exceed nine. Dr. Whitmore in his report offers some remarks on the result of Dr. Power's investigation into the cause of the outbreak of diphtheria which occurred at Kilburn last year. He regrets that the investigation has terminated somewhat unsatisfactorily, and suggests that a Commission should be appointed by Government to make a searching inquiry into all the conditions under which milch-cows in this country are placed, with the view of adopting additional safeguards against the sale of milk infected or supposed to be infected.

EDINBURGH MINTO HOUSE MEDICAL SCHOOL.

THE following lecturers were on the 15th inst. appointed to the New Medical School in Chambers-street:—Dr. Symington, Anatomy; Dr. Craig, Materia Medica; Mr. Daniell, M.A., B.Sc., Medical Physics; Dr. Waller, Pathology; Dr. Kirk Duncanson, Diseases of the Ear; Dr. Jamieson, Skin Diseases; Dr. Halliday Croom, Midwifery. The other lecturers who had been already appointed are:—Dr. Wyllie, Practice of Medicine; Dr. Angus Macdonald, Midwifery; Dr. Aubrey Husband, Medical Jurisprudence and Public Health; Mr. Cheyne, Surgery; Mr. J. Falconer King, Chemistry; and Dr. Ewart, who has been appointed Regius Professor of Natural History in Aberdeen, and is now succeeded by Dr. Symington. The lectureships remaining to be filled up are Physiology, Botany, and Natural History; but in addition to these there will be other non-compulsory classes than those already mentioned.

THE HUNTERIAN SOCIETY.

AT the annual general meeting of this Society, held in the London Institution, on Wednesday, February 12, the following gentlemen were elected officers for the ensuing year:—*President*: J. Braxton Hicks, M.D., F.R.S. *Vice-Presidents*: G. Lichtenberg, M.D.; B. Shillitoe, F.R.C.S.; P. H. Pye-Smith, M.D.; George Roper, M.D. *Treasurer*: H. I. Fotherby, M.D. *Trustees*: H. I. Fotherby, M.D.; D. De Berdt Hovell, F.R.C.S. *Librarian*: P. L. Burchell, M.B. *For the Oration of* 1880: P. H. Pye-Smith, M.D. *Secretaries*: R. Clement Lucas, B.S.; Stephen Mackenzie, M.D. *Council*: F. M. Corner, M.R.C.S.; T. B. Crosby,

M.D.; E. Dukes, M.R.C.S.; T. R. Fendick, L.R.C.P.; R. Fowler, M.D.; James Greenwood, M.D.; G. E. Herman, M.D.; A. H. Smee, M.R.C.S.; G. J. B. Stevens, L.R.C.P.; W. C. Toulmin, L.R.C.P.; Waren Tay, F.R.C.S.; Stephen Ward, M.D. The annual dinner of the Society took place at the "Albion" on Saturday, the 15th inst., when the retiring President, Dr. Crosby, occupied the chair. He was supported by Professor Owen, the Presidents of the Medical, Clinical, and Pathological Societies, and other distinguished guests. In replying for the toast of the evening, Professor Owen alluded to the recent outcry against vivisection, and showed how the Hunterian operation for the cure of aneurism was founded on experiments made for the purpose of studying the growth and development of the stag's antlers.

DEATH OF EDWARD LEDWICH, F.R.C.S.I.

We much regret to announce the death of Mr. Edward Ledwich, which occurred on Wednesday last. He had been in failing health for some time. He was Fellow and member of Council of the Royal College of Surgeons, Ireland, Surgeon to Mercer's Hospital, and Lecturer on Physiology to the Ledwich School of Medicine, of which institution he was also Registrar. His treatise on "Human Anatomy" is a well-known and popular text-book.

THE PATHOLOGICAL SOCIETY.

The special discussion on Lardaceous Disease at the Pathological Society will begin at the second meeting of the Society in March, Dr. Dickinson introducing the subject. The Secretaries will be glad to have the names of any gentlemen who intend to take part in the discussion.

MEDICAL PARLIAMENTARY AFFAIRS.

The Plague.—In the House of Lords, on Friday, February 14, the Duke of Richmond, in reply to the Earl of Carnarvon, said that he had been in communication with the College of Physicians, requesting them to recommend to her Majesty's Government some gentleman whom they would think to be a fit and proper person to visit the plague-stricken districts, to inquire as to its origin, and the best means of dealing with it where it arises. He was also in communication with the Russian Government, requesting to be allowed to send a physician to take part in the inquiry. He had instructed the officers of Customs to inspect very narrowly the bills of health of all passengers and crews of ships from the Black Sea and the Sea of Azof. The medical advisers of the Government have been asked to point out what goods they consider most calculated to convey infection. The Quarantine Officer of the Privy Council has been asked to suggest any mode of disinfection that may be used with advantage should this fatal disease visit this country. Dr. Wibley, of Southampton, had written to him, stating that after a long experience of its use, every possible security from infection of persons and goods may be relied upon by the free use of nitrous acid fumes produced by pouring fuming nitric acid upon copper filings. The Government are prepared to act at a moment's notice under the powers of the Quarantine Acts should the plague visit this country.

Intemperance.—A Select Committee of the House of Lords was appointed to inquire into the prevalence of habitual intemperance, and into the manner in which those habits had been affected by recent legislation.

Cattle Disease.—In the House of Commons, Lord George Hamilton, in reply to several inquiries respecting the importation of cattle suffering from pleuro-pneumonia into this country, said that the Government had for some time past received intimation that there was in the United States a considerable amount of disease among cattle and other domestic animals, but there had not been any cases imported to this country from the United States up to January 26 of this year. Contagious pleuro-pneumonia had been detected in three cargoes arriving from the States. An order had been issued prohibiting importation of live cattle from the United States after March 3 next. A foreign animals wharf will shortly be opened at Birkenhead, with every accommodation for the slaughter of animals coming from the States; and other improvements are being made at Liverpool for landing and storing cattle.

The Medical Council.—Lord G. Hamilton, in reply to Mr. Waddy, said that the Government had not received any communication from the Medical Council on the subject of the working of the Council. The amendment of the Medical Acts, as regards education, foreign diplomas, education of midwives, and other important matters contained in the Government Bill of last year, can proceed without prejudicing the subject. The Government propose to institute an inquiry into the constitution of the Medical Council.

The Sale of Food and Drugs Act (1875) *Amendment Bill* was read a second time, and referred to a Select Committee of the House of Commons on Friday, the 14th.

Habitual Drunkards Bill.—In the House of Commons, on Monday, February 17, Dr. Cameron, having previously introduced this measure, succeeded in pushing it on a further stage, and the Bill was read a second time without debate.

Compensation for Injuries to Workmen.—This Bill was introduced to the House of Lords by Earl Delawarr, and read a first time, although the Lord Chancellor remarked that the Government proposed to deal with the subject of employers' liability for injuries to their workmen, in the House of Commons later on.

Medical Acts Amendment.—In the House of Lords, on Tuesday, February 18, the Duke of Richmond, in replying to Earl Granville, said that he hoped, at an early date next week, to introduce a Bill for amending the Medical Acts, and, shortly after that, a Bill for the conservancy of rivers and on floods generally.

Artisans' Dwellings.—In the House of Commons, Mr. Hopwood asked the Secretary of State whether he was aware that since he declined to approve the scheme promoted by the Metropolitan Board of Works under the Artisans' Dwellings Act, 1875, in respect of an unhealthy area in Gray's-inn-road, no other had been substituted for it. The official representation of the unhealthiness of the place was made by the Holborn District Board of Works as far back as May 19, 1875. Mr. Cross replied that under the Metropolitan Improvement Act, not under the Artisans' Dwellings Act, the Board in question had, in 1876, prepared a scheme for the widening of Gray's-inn-road, so that the greater portion of the area affected by the original scheme was destroyed. He was sorry to say that he had no power to compel the carrying out of the provisions of the statute for improving the artisans' dwellings.

Tendency to Suppuration in Morphiomaniacs.—At the Therapeutical Society, Dr. Dujardin-Beaumetz drew attention to the great tendency to suppurative action on the part of morphiomaniacs. Making every allowance for the kind of syringe used, or the impurities of the solution of morphia, it will still be found that when the subject has become saturated with morphia, all the injections, whatever care be taken in making them, will give rise to abscess. We may change our syringes or solutions as we like, but the abscesses continue to appear, and continue to do so until we diminish the doses and number of injections. M. Constantin Paul had also observed this tendency to suppuration; but M. Féreol would explain it by special predisposition to suppuration, and not the abuse of morphia.—*Bull. de Thérap.*, January 30.

A Duplex Uterus with Duplex Conception.—Dr. Sotschawa, of Moscow, relates the case of a woman, aged twenty-six, who applied to him on account of hæmorrhage occurring during her third pregnancy. On examination it was found that there were two distinct vaginæ, each leading to a uterus. The finger passed up readily through the first of these so as to be able to feel the presenting ovum, the uterus seeming to correspond to about the second month of pregnancy. The vagina on the other (the right) side was more narrow, but allowed the cervix of what seemed a third-month uterus to be felt. Hæmorrhage was taking place from both uteri, and, in consequence of this being considerable, an embyro of a month old was removed by the finger from the left uterus; and three days later a three-months fœtus was extracted from the right uterus. The author observes that the case is not only remarkable for its rarity (only thirty similar cases being on record), but also as testifying to the probability of superfœtation.—*St. Petersburg. Med. Woch.*, January 25.

FROM ABROAD.

Syphilis in relation to Marriage.

(*Continued from page* 184.)

Having shown you in the previous lecture how a syphilitic becomes dangerous by marriage, we will now pass on from theory to practice, and establish on what conditions a man, having had syphilis, may be declared admissible to marriage. The solution of this question is assuredly very embarrassing, for we are brought by it on to a soil not yet cultivated, where we have not for our guide the experience of our predecessors—of those whom a just respect has proclaimed the masters of our art. No programme has ever been traced out beforehand, and it is as the result of what I have read and what I have seen that I shall lay down for you the conditions which should, in my opinion, satisfy a man who, having had syphilis, is desirous of contracting a marriage. Such a man ought, then, to fulfil five indispensable conditions:—

1. *The Absence of Actual Symptoms.*—This is a consideration which is absolutely elementary for everybody. The sole presence of the slightest symptom should prevent the marriage of him who exhibits it. It should be a striking testimony of the disease with its consequences, and the dangers it betokened to the wife and children. This cause of exclusion of marriage is so obvious an evidence that it seems superfluous to insist upon it. Still, we must not deceive ourselves on this point, for examples of this incredible audacity have been observed over and over again; and, for my own part, I have more than a dozen times known men to marry who were the subjects of syphilitic accidents on the day of their marriage—palmar psoriasis, syphilides of the scalp or the mouth, condylomata, syphilitic sarcocele, and even indurated chancre. What can be the motive of an action like this? It is not always what one would suppose—ignorance, or interest. Doubtless some there are who are ignorant of the dangers to which they expose their wives and children: these are the simpletons. But there are others who are well aware of them, but who, considering nothing but the bait of a marriage portion, or of a position to be acquired, brave all these fears, and persist, guilty cynics as they are. But most of those who marry with syphilis upon them are neither guilty in this sense or ignorant: they are careless and weak-minded, who, having blundered into a marriage, find themselves at a given moment circumvented by circumstances, and dare no longer resist. Ashamed of their actions, they yet have not the courage to refuse, in fear of the scandal which their refusal would produce, and the unavoidable divulgation of their disease.

2. *The Advanced Period of the Disease.*—We may lay down this axiom—that the younger the syphilis of the husband, the more numerous and the more grave are the dangers he conveys by his marriage; and, reciprocally, the older the syphilis, the more favourable are the chances. It is, in fact, recent syphilis which causes most danger by its contagiousness, and it is in the five, six, ten first months that its manifestations are more disseminated, more dangerous, and more disposed to relapse. Nothing relapses like a condyloma; and we may see erosions of the mouth reproduced in smokers ten or twenty times within a short period. The recent accidents of syphilis are, too, all the more redoubtable that their seats of predilection are the mouth and the genital organs—two localities essentially dangerous in relation to contagion in marriage. It is in the secondary stage also that the phenomena are benign and insignificant in appearance, and they are only the more dangerous. It is precisely this apparent benignity is their greatest danger, owing to their eminent contagiousness. On the other hand, at a more remote period these dangers exist no longer, or are much more restricted, and for opposite reasons. The manifestations of tertiary syphilis are more separated and do not occupy the same sites, and are constituted by deeper, larger, and more important lesions, the danger of which cannot be overlooked. You must not suppose that these are reasons imagined in the seclusion of the study, for these assertions are demonstrated by experience. If we seek to know which husbands are most dangerous to their wives, facts prove to us that they are men who married with a recent syphilis after the first or second year of duration. In these cases we may say that contagion is almost constant; while those who marry after five, six, or ten years of syphilis do not run much danger of conveying it. So with heredity, the advanced period of the disease is a favourable condition. A woman, at first, has one or more miscarriages; then, under the sole influence of time, a premature birth; and next is delivered at full time of a dead infant, or of one destined to die. Finally, she gives birth to a living infant, time having worn out the morbid paternal influence. The marriages most dangerous to the children are those which are contracted when the syphilis is of some months' or a year or two's standing; and those who have waited from five to ten years before marrying exert a much more restricted influence. The conclusion to be drawn, then, is that the advanced age of a syphilis is an essential condition for marrying. What should be its duration? This is a delicate point, and to lay down an arithmetical term is a great difficulty, for the age of the syphilis is not the only point to be considered. In order to lay down a precise date, I may say that I believe that a man, having syphilis, should not dream of marriage until a *minimum of three or four years* has passed, and better wait still longer. The longer he delays, the more chances will he have in his favour. Within this period observation only records catastrophes, while beyond it the accidents become attenuated in a notable manner.

3. *A certain Period of Immunity ought to have elapsed since the Last Accident.*—The patient must have remained completely exempt from all specific manifestation during a certain period. This offers a guarantee which seems necessary for several reasons. It attests that the syphilis has passed through its acute and redoubtable period. The time thus passed enables us to judge of the degree of mitigation of the diathesis, and is a proof of the actual non-activity of this diathesis, the loosening of the hold of which it announces, and consequently the decrease in the dangers of contagion and heredity. Certainly, I would not dare sanction a marriage shortly after a syphilide was cured. Here, again, you will ask me to fix this period in precise figures; but it is absolutely impossible to fix a determinate time. The longer this period of immunity is, the more reassuring it will be; but, if I must fix a minimum duration to this period of repose, I will place it at from eighteen months to two years.

4. *The Unmenacing Character of the Syphilitic Diathesis.*—There assuredly exist slight syphilis and grave syphilis. Slight syphilis is confined to a small number of superficial accidents; while the grave forms, even when treated, give rise to deep-seated lesions. Now, the quality of the syphilis is far from being an unimportant matter in the question with which we are now engaged; it is a very essential condition to be considered. If the syphilis is medium and slight, if it exhibit only benign and superficial manifestations, and, showing itself amenable to treatment, it undergoes amendment, we are in the presence of excellent conditions for the patient who asks us if he may contract marriage. All this *ensemble* of benignity gives confidence to his adviser, renders him more tolerant, and favourably influences his verdict. But, on the other hand, if he finds himself face to face with what I call a "bad syphilis," all the conditions are changed; for there are indeed bad syphiles in relation to marriage. They are of different kinds, and these are the principal types:—1. That is a bad form of syphilis, which, without being grave in itself, becomes remarkable by the incessant reproduction of the same accidents, especially on he mouth and penis, although these may be very superficial. Thus, I have seen a young man who has never had anything but roseola, psoriasis palmaris, and lingual syphilides, which have reappeared very frequently in spite of energetic treatment with the proto-iodide carried to fifteen and twenty centigrammes. The affection has continued to relapse to the present day. After treatment the ulceration disappears, reappears at a later period, is again cured, and so on. What would have happened had I authorised him to marry at the end of one of these manifestations that had become quite cured? The question with him need not be asked, for he has a mistress whom he has contaminated in this manner. 2. They are forms of bad syphilis which are grave for various reasons, such as the intensity, the multiplicity, and the nature of the accidents produced; and

those which at an early period affect the tertiary form, become visceral, and remain refractory to all treatment. 3. When syphilis invades an important organ essential to life, as the brain: cerebral syphilis being especially dangerous by reason of the organ affected, and the tendency to relapse which is almost habitual. Thus, a young man, who in 1865 had symptoms of syphilis, for which he was insufficiently treated, married, contrary to my advice, in 1875, and was seized with cerebral accidents—epilepsy, hemiplegia, amnesia, and hebetude. He was cured of his hemiplegia, but remains in a condition bordering on dementia. Another, while shooting, found that he could no longer support his gun with his left arm, and next year was affected with disturbance in the movements of the tongue. Treated, and cured of these accidents, he married in spite of my advice, and, ten days after, grave cerebral symptoms appeared, with hemiplegia and amnesia; and six months later he was in a state of dementia.

We perceive, then, how important it is that the practitioner should minutely inform himself of the quality of the syphilis, and that he should thoroughly interrogate his patient, so as to draw up a scrupulous inventory of his pathological balance, and exhibit the true value of his syphilis. It is easily understood here that no general rules can be laid down: everything is individual. The prognosis is dependent upon the knowledge and the tact of the physician.

5. *A sufficiently Prolonged Specific Treatment.*—This is the capital condition *par excellence*. It is this treatment which diminishes and removes the dangers of syphilis, and which constitutes the best safeguard against the personal risks incured by the patient. We may, indeed, at the present time affirm that syphilis treated at its commencement energetically and for a sufficiently long time has no tertiary period, while when untreated or treated insufficiently, with rare and inexplicable exceptions, it runs on to the tertiary stage. It is also treatment which diminishes and suppresses the causes of contagion and the chances of heredity. A wife has a series of miscarriages, which have no other cause than the syphilis of her husband. Let him be treated, and the pregnancy goes on to its end. So for the mother. A woman receives syphilis from her first husband, and, becoming a widow, marries a healthy man, by whom she has syphilitic children. She is treated, and henceforth gives birth to healthy infants. And so it is under the combined influence of the father and mother who, both syphilitic, have syphilitic children. They are treated, and their children are exempt from syphilis. More than this, a new and extraordinary case has been observed, showing that for an infant to be born healthy it may suffice that its syphilitic parents are under the provisional influence of a mercurial treatment. A syphilitic women had seven syphilitic infants in seven pregnancies, all of whom died. She underwent treatment, and had an eighth pregnancy, which terminated in the birth of a healthy child; and so also with a ninth pregnancy. In her tenth pregnancy she underwent no treatment, and gave birth to a syphilitic child, which died at its sixth month. She again underwent treatment, and her eleventh pregnancy produced a healthy infant.

All these considerations prove the corrective influence exerted by treatment on syphilis. The capital condition for a syphilitic man who marries is that he shall have been sufficiently treated, having submitted to prolonged, well-ordered, and methodical treatment. This is not the occasion to explain what is this sufficient treatment: I described it at length in my lectures of last year, when I established that, combined with time, specific treatment by means of successive forms of co-ordinated medication during several years is the best guarantee for our hopes of a cure, and consequently for authorising a marriage. Time on the one hand, and treatment on the other, are the two major conditions which he who wishes to marry must fulfil.

I will not terminate without alluding to a practice which is regarded by the vulgar as an infallible criterion—I mean the popular belief that sulphurous mineral-waters possess the singular property of detecting the traces of a dormant diathesis—"bring out the pox." Every year a large number of syphilitic persons repair to one or other of these springs in order to undergo treatment for the traditional twenty-one days, under the hope that, "if there remain anything in the blood," these sulphurous waters will bring it out. If nothing appears they conclude that they are cured and apt for marriage. This revealing action of these waters has no existence. Sulphurous waters are doubtless of use to the subjects of syphilis on other grounds, and especially as tonics and adjuvants to mercurial treatment. The truth is, doubtless, that by reason of their stimulant effects they frequently produce eruptions in these patients, and syphilitic exanthemata are common in them; but time after time this treatment causes nothing of the sort to appear, although the persons are still syphilitic. One, two, even five or six seasons produce no revealing effect, and the legend of their power to do so should be abandoned. Let us use these mineral waters for their effects, if it seem desirable; but for once when they may assist in a diagnosis, they will remain dumb twenty times,—so that no attention should be paid to a criterion which is absolutely false.

Conclusion.—To any subject of syphilis who does not fulfil the five indispensable conditions which we have formulated we ought to refuse marriage; and we may declare as admissible to marriage whoever presents these all united. Nevertheless, I must declare to you that I only give you these few reflections on the subject for what they are worth. They have not been discussed and promulgated by any medical Areopagus, and are but the simple result of my own personal experience. They are liable to revision, and I shall be the first to modify or amend them when further observation shall have furnished new and contradictory facts. Moreover, we must not be under any illusion as to the possibility of ever constituting a programme embracing all cases and all eventualities. To demand a categorical, mathematical solution would be to ask for the impossible. That is not the character of problems of this kind; and to require such a formula would indicate a mind little versed in medical science. We can never do more than make a calculation of probabilities in the essentially delicate appreciation of morbid elements and curative elements. Nevertheless, where thus limited, the medical practitioner may render inestimable services. When consulted, the physician, in fact, will either be in possession of sufficient information to enable him to resolve the question, and his prognosis will be confirmed by experience; or he may want the elements necessary for convincing himself and pronouncing an opinion. In this case let him not forget that he is not obliged to pronounce a verdict: and if he is not satisfied he should not pronounce it. We cannot absolutely know whether, yes or no, a given subject of syphilis will have no more symptoms; and to the suspected patient we should distinctly reply, "You may be dangerous, and we advise you yet to wait." The facts are there to judge us by. Rarely will an imprudent person, who has married in spite of the advice of his physician, not have to repent of it; while those who have married with a motived consent of their medical adviser have proved dangerous neither to their wives nor to their children.

Reflex Affections of the Nervous System in Diseases of the Ear in Children.—Dr. Bouchut, in a lecture delivered at the Hopital des Enfants Malades (*Gaz. des Hop.*, November 19), related some interesting cases as examples of the extraordinary and varied neuroses that may be met with in children suffering from affections of the ear. Thus, we may have an intermittent mania of short duration, vertigo, fugitive imperfect paralysis, epileptiform symptoms, etc. In children, indeed, as in adults, diseases of the ear, and foreign bodies in the ear, may produce, quite independently of any inflammation of the brain or membranes, the most varied reflex neuroses. By means of the ophthalmoscope we find either a normal condition, or very great congestion of the papilla and of the veins of the retina; so that we may conclude that there is cerebral hyperæmia, induced by irritation of filaments of the auditory—just as we observe it in the cephalalgia due to the reflex action of the second dentition. The indications are—the removal of any foreign bodies from the ear, and the slow injection of half a glass of milk with a teaspoonful of glycerine, or of an antiputrefactive solution made of ten drops of thymic acid to a quart of water, or of carbolic acid diluted to a thousand. In order to relieve the nervous condition, two or three grammes or more of the bromide of potassium may be given daily, or ten drops morning and evening, in a quarter of a glass of water, of tincture gelsemium, or two or three grammes of chloral at one dose. The sulphate of quinine, in doses of from fifty centigrammes to a gramme per diem, is, however, the remedy which has succeeded best.

GENERAL CORRESPONDENCE.

PERIODIC HÆMOGLOBINURIA.

[To the Editor of the Medical Times and Gazette.]

SIR,—As one who has suffered for more than eleven years from periodic hæmoglobinuria, I venture to send you the following short notes upon it:—

In the able remarks which you have made lately and at a former time on this malady, you have not, I think, noticed the peculiarity of the blood globules. If a drop of blood drawn from a pricked finger be examined under the microscope, the globules seem to be deficient in outline, soft, and soon melting down into an irregular network. In fact, I should describe the essence of the disease as a hurried and imperfect formation of blood corpuscles, which easily stagnate in the capillaries under cold, and quickly perish, and so are eliminated by the kidneys as a broken-down mass of blood-stuff; whereas under healthier circumstances they would be discharged as bile and urinary pigment.

Secondly. My own personal experience enables me to say that the paroxysms are not only *not* attended with fever, but that both before and during them the temperature of the body is preternaturally low. It is most difficult to coax the thermometer up to the normal point, either in the mouth or in the axilla.

It may be quite true, as in my own case, that the hæmaturic patient may have been subject to attacks of fever, malarious or otherwise, intermittent or remittent; but the fever-fits and the hæmaturia do not come together. On the contrary, I have found that feverishness is constantly an antagonist to hæmaturia. No matter from what cause fever may arise, whether ague-fit, or influenza, or slight gout, or exposure to the sun, hæmaturia is always absent; while the urine is abundantly loaded with pigment, and there is an enormous overflow of bile, due, as I believe, to the chemical destruction of blood-stuff, which without the fever might have passed by the kidneys. Not only the thermometer, but the patient's sensations during the attacks are very different from those attending feverishness: sense of wretchedness, slow feeble pulse, hands and feet obstinately cold, with blue fingers and toes, and clammy cold perspiration; often sense of constriction in the loins, as though a rope were tied round inside one; but these may pass off without being followed by any fever whatever. The attacks may be of very short duration: the secretion passed one hour may look like coffee, and the preceding and following be quite healthy. As to the causes which provoke the paroxysm, the most efficient is mental worry or exertion; an annoying letter or a game of chess might make the hands and feet deadly cold, and bring on an attack in a quarter of an hour. 2nd. Cold, especially cold air blowing on the skin of the trunk if uncovered, cold feet from any cause, etc. 3rd. The attack may be truly periodic—that is, will come, or will threaten to come, at a fixed hour without any known precursory or exciting cause. The patient has perhaps had a good night, and prudently breakfasts in bed, with a warm, genial skin and feeling of comfort. After a while he becomes conscious that his feet are getting cold and his fingers and toes blue, and the secretion next passed is full of blood-stuff.

I need say nothing about remedies, except to lay emphasis on warmth, rest of mind, coffee, and, above all, sparkling wine. And it is my experience that it is better to stay indoors and give in to the disease, than expose oneself to the weather and attempt to defy it. I am, &c., D.

STEAM AND STEAM-DRAUGHT INHALERS.

LETTER FROM MR. W. D. NAPIER.

[To the Editor of the Medical Times and Gazette.]

SIR,—There seems to be a rage just now for instruments capable of supplying steam, or steam and air combined, for inhalation or other purposes; and I have been amused with noticing to what an extent your columns, and those of your contemporaries, have of late been occupied with descriptions and illustrations of various machines designed for this end. Having carefully examined each as it appeared, I am, I believe, justified in stating that, with hardly an exception, these *quasi* discoveries are merely modifications, or, in some cases, direct piracies of the invention of Dr. R. J. Lee, whose valuable instrument was introduced to the profession some years since, and continues to be sold by Messrs. Maw and Co., Aldersgate-street, for a few shillings. It yields a remarkable instance of the readiness with which a certain class of people adopt and make use of the ideas of others; and of the ease with which they fall into the belief that they are justified in placing their names before the public as originators. I feel that it is not right to allow these illusions to pass unchallenged; and I direct attention to them the more freely as I have no personal interest involved, and am only desirous for recognition of the broad principle that the just claims of inventors should be strictly observed.

I am, &c., W. DONALD NAPIER.

22, George-street, Hanover-square, W., February 19.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 11.

CHARLES WEST, M.D., President, in the Chair.

OPHTHALMOPLEGIA EXTERNA OR SYMMETRICAL PARALYSIS OF THE OCULAR MUSCLES.

Mr. JONATHAN HUTCHINSON commenced by stating that the term "ophthalmoplegia" had been used by Gräfe ten years ago in reference to the class of cases dealt with in this paper, and that more recently Eulenburg, writing of the same cases, had applied the appropriate adjective "progressive." The affection had not, however, he believed received any notice from English writers. Most of its best-marked examples occurred to adults who had suffered from syphilis many years before, but it had been recognised in connexion with inherited syphilis, and, in some cases, without any assignable cause. Its essential feature was bilateral paralysis of the external muscles of the eyeballs, and it sometimes proceeded to such an extent that the eyes were almost motionless in their orbits, and the patient was compelled to move his head from side to side when he wished to change the direction of vision. A remarkable fact, however, was that the paralysis rarely proceeded to absolute paralysis, and rarely affected all the muscles in the same degree. Sometimes one or two wholly escaped. The lids always drooped over the eyes, giving to the patient the appearance of being half asleep, but it was seldom that there was complete ptosis. Ophthalmoplegia interna and paralysis of the iris and ciliary muscle were often present also, but might be wholly absent. In some cases the optic centres were affected, and blindness, with white atrophy, resulted. The facility with which the progress of the disease was influenced by iodide of potassium probably in large measure accounted for the frequent incompleteness of the paralysis, and for the circumstance that it did not always manifest progressive tendencies. In advanced cases the spinal cord was affected and symptoms of locomotor ataxy were developed, or of other forms of paralysis. The author then proceeded to narrate in abstract the particulars of fifteen examples of the malady, thirteen of which had been under his own observation, and two under that of Mr. Waren Tay. In the study of several of these cases he had to acknowledge the able assistance of Dr. Hughlings-Jackson, and, in the only one in which an autopsy had been obtained, Dr. Jackson was present at it, and the microscopic examination of the brain had been made with great care by Dr. Gowers. A summary of the clinical evidence was appended as follows, the facts being too few to permit of statistical analysis. Of the fifteen cases, four only occurred in females, and two of these were children. One of the males was a boy, the subject of inherited taint, and the remaining ten were all adults. In eight of the fifteen it seemed certain that syphilis was the cause, in six acquired, in two inherited. Of the remaining seven a reasonable suspicion of syphilis might be entertained in several. Had it not been for an almost accidental revelation of the truth in the case of the man after prolonged fruitless investigations, Mr. Hutchinson would certainly have asked the Society to believe that his was an example of the disease without any probability o

syphilis. With such a fact in mind, the author felt that it would be almost impossible to make the negative even fairly probable. In Case 9 no direct question was asked, the patient being a single woman. In the two young children, although nothing could be proved, there were some suspicious facts, and one recovered under the iodide. The case in which evidence was most conspicuously absent was No. 13, but in that the patient was a young man who might have denied the true history, or who might have either inherited a taint or acquired disease in some irregular way of which he knew nothing. On the whole, the evidence which connected this affection with syphilis was exceedingly strong, and that which favoured the belief that it could occur independently of it must be held to be open to some doubt. In five of the patients, all but one known to be subjects of syphilis, the optic nerves were affected, and blindness with white atrophy resulted. In two cases the fifth nerves were symmetrically affected, and in two there was slight affection of the facials. The almost constant escape of the facials must be held to be a remarkable fact. In one case the palate was affected, and in one (the same patient) smell was lost. None of the patients were deaf, and none had lost taste; and in only one was there any material anæsthesia of the skin of the face. In six cases the lower extremities were more or less weak and liable to pain, the condition approaching more or less closely to locomotor ataxy. Mr. Hutchinson much regretted that owing to imperfect knowledge on his part at the time of their occurrence, the details of facts in reference to this disease were often incomplete. There could, however, be no doubt that ophthalmoplegia externa was sometimes a part of the general malady known as progressive locomotor ataxy, especially when that disease was due to syphilis. One of the patients became insane, and another was liable to attacks of violent mental excitement. Four of the fifteen were known to be dead, but of these a post-mortem was obtained in only one. In several cases, owing either to the blindness or the youth of the patient, it was impossible to estimate the state of the accommodation; but in a certain number it was proved to be perfect, in a few it was absent, and in a few it varied. The pupil never contracted, was almost always sluggish and of medium dilatation. In one well-marked case it acted fairly. In no single case was it very widely dilated. From these facts it might be inferred that the lenticular ganglion was often free from disease; and that the vasomotor filaments, although often enfeebled, were not usually paralysed. It would be difficult, the author said, to make any confident statements as to the progressive tendencies of the malady of which ophthalmoplegia is a symptom. It is very definitely influenced for good by treatment, and specific measures were adopted in nearly every case related. It might be conjectured, however, from what happened in several, that in most instances it was an aggressive malady, and would end fatally if treatment were not resorted to. The effects of remedies in several of the cases were very remarkable, the patient being rescued from a very dangerous condition. At the time that most of the cases were under treatment, Mr. Hutchinson's opinions, as regarded the nature of the malady, were far less clear than at present; and hence he felt a hesitancy in treatment which was probably often prejudicial. The patients were benefited up to a certain point, but relapses occurred, and the remedy was not pushed sufficiently. It would seem that the iodide of potassium is by far the best means of treatment; and that it ought to be given over very long periods and in increasing doses, without any limit as to precise quantity, excepting its effect on the symptoms. Although relapses are common, yet in several of the cases narrated a complete arrest appears to have occurred, no treatment having been resorted to for several years. In none, however, was the recovery complete.

Dr. Buzzard said that he could add another case, showing the association of ophthalmoplegia with syphilis. He had under his care in hospital a woman, aged twenty-five, who had syphilis a year since. Mr. Hutchinson had seen her with him a few days ago, and had confirmed the diagnosis. There was symmetrical paralysis of the orbital muscles of both sides, except the left external rectus. Besides showing the association of this condition with syphilis, the case presented the symptoms of locomotor ataxy—difficulty in walking, especially with the eyes closed; anæsthesia of the soles of the feet and tips of the fingers, a sense of constriction of the abdomen, gastric crises (pain in the belly, with vomiting and diarrhœa), and absence of the patellar tendon-reflex. There was also atrophy of the muscles about the scapulæ, but it was not quite symmetrical; the rhomboids were affected, and one side of the trapezius and one pectoralis major. The association of ophthalmoplegia with locomotor ataxy was very interesting, but could not at present be explained. Sclerosis was known to extend gradually, in cases of locomotor ataxy, to the anterior cornua of the spinal cord, so as to produce muscular atrophy; but in the present case the whole course of the disease had occupied only about two years and a half. Mr. Hutchinson's suggestion, that the nuclei of origin of the orbital nerves were affected as in muscular atrophy, was probably the best. A striking fact in the case was the abdominal crises, indicating disturbance about the root of the pneumogastric nerve. He agreed with Mr. Hutchinson that we must look in the direction of syphilis for an explanation of the disease.

Mr. Hutchinson said that ophthalmoplegia was of great interest in connexion with the study of other nerve-disorders. It was more easy to study paralysis in the muscles of the eye than in other parts. There were cases in which syphilis simulated locomotor ataxy; these recovered under treatment. He thanked Dr. Gowers for the great care with which he had examined the brain in the case in which a necropsy was made.

Case of Recovery from Leprosy.

Mr. Jonathan Hutchinson brought this case before the Society as an instance of complete arrest of the progress of true leprosy. There was still paralysis of one ulnar nerve, and many patches of skin were deficient in sensation, and there were permanent changes in the eyes. In other respects, however, the cure was complete, and the patient enjoyed excellent health. The subject of the case had been under the author's observation for twenty-seven years. She is a Jewess, born of parents who had lived only in England, of a family in which no leprosy taint existed. At the age of thirty-two she went to live in Jamaica, and twelve years later she returned the subject of leprosy in a severe form: the tubercular and the anæsthetic symptoms were present in combination; areas of skin were dusky and devoid of sensation, one ulnar nerve was paralysed, and the face was covered with tuberous folds of indurated skin. She was for some time under treatment at the Hospital for Skin Diseases, then an in-patient under Dr. Addison at Guy's, and lastly at Moorfields. For the last twenty years she has considered herself well. The author expressed his belief that the cause of the recovery was the change of residence, and the element of importance in this the change of diet, and the special article of diet in question—fish. He did not believe that mere climatic influences, air, etc., had any share in the result, for, in regard to leprosy, it prevailed under the most various conditions.

The President questioned whether Mr. Hutchinson's condemnation of fish was borne out by facts. In Norway, where fish was much used, leprosy prevailed only in certain districts. Certain monastic orders also lived chiefly on fish, and yet he was not aware of the prevalence of leprosy among them. The disease was also widely spread in the middle ages, in districts where fish could not have been easily attainable.

Dr. Gilbart Smith had seen many cases of leprosy in the parts about the delta of the Nile. It was a very common opinion that it arose from eating fish that had been exposed to the rays of a tropical sun.

Mr. C. Macnamara said that leprosy existed among the tribes of the Himalaya Mountains, who ate very little fish; while the disease was not met with among the residents near the Volga and Don, who used much fish. The inhabitants of the Sandwich Islands were free from leprosy until the immigration of Chinese in 1836, since which time it had prevailed extensively. There had also been a case in an European resident in Queensland, where there had been an immigration of Chinese. In this case, filariæ were found in the blood, and leprosy would probably be found to be connected with the presence of these organisms.

Mr. Hutchinson said that the connexion of fish-diet with leprosy was a question of much detail, on the consideration of which there was not now time to enter. He would, however, say that he believed it was not so much the amount of fish as its quality that was important. A small quantity of bad fish would probably produce the disease, especially when it was taken from water of a high temperature. In Norway, leprosy did not prevail in Bergen, except among the poor; the water there was comparatively warm, being exposed to

the Gulf Stream. At Christiania, where the water was cold, there was no leprosy. Again, leprosy was met with in those parts of the coast of the Mediterranean to which fish was largely supplied.

Sir JOSEPH FAYRER said that if bad fish produced leprosy, the inhabitants of British Burmah ought to be very liable to the disease; but they were not. It was the universal belief in India that leprosy was not due to the use of fish as food.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on Feb. 18:—

Bell, Thomas Arthur, 9, Falmouth-road, S.E.
Benington, Robert Crewdson, 19, Vivian-road, S.E.
Brown, Edward, St. Bartholomew's Hospital, E.C.
Burton, William Henry, M.B. Toronto, London Hospital, E.
Cant, William John, Nechells, Birmingham.
Cowie, Andrew James, M.D. Pennsylvania, 127, Ladbroke-grove, W.
Davy, David Henry, Oakleigh-park, N.
Day, William White, Tadcaster.
Douglas, Arthur Latham, 5, Cowley-street, S.W.
Fardon, Edward Ashby, Middlesex Hospital, W.
Gillam, Thomas Henry, Great Northern Hospital, N.
Gillies, Niel, M.D. Kingston, 142, Lambeth-road, S.E.
Hebert, Paul Zotique, M.D. McGill, 142, Lambeth-road, S.E.
Hetherington, George Haynes, St. Mary's Hospital, W.
Hine, Alfred Leonard, 8, Oakley-street, S.W.
Hope, Edward William, M.B. Edin., 16, Chesham-place, S.W.
Jones, James Robert, M.B. Toronto, London Hospital, E.
Kittson, Edmund Graves, M.D. McGill, 142, Lambeth-road, S.E.
Leslie, Rolph Bidwell, M.D. Toronto, 2, Storey's-gate, S.W.
Lofthouse, John, Rochdale.
McSwain, Angus, M.D. Massachusetts, 142, Lambeth-road, S.E.
Osborne, James, Southwell.
Pardington, George Lucas, St. Bartholomew's Hospital, E.C.
Porter, William Smith, Broomhill, Sheffield.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examinations during the recent sittings of the examiners:—

Thomas Humphreys Hughes, Machynlleth; John George Hardy, Durham; Robert Wilson, Buckie; Sarkies Thaddeus Avetoom, Calcutta; Robert Joseph Shaw, Wexford; Moffat Young, Ireland; Henry Liston, Edinburgh: George Jukes, Cumberland; John Osburne, Cork; James Martin, county Londonderry; John Peter Elliott, Bellingham; George Dunn Wilson, county Cork; Robert Dover Brunskill, Brompton; Herbert Linney Hawkesley, Buxton; James Trumble Chambers, county Tyrone.

The following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Lindsey Barrett, Donegal; Henry Owen Westwood, Stourbridge; Charles John M'Farlane, county Tyrone; Alfred Emson, Dorchester; Frederick John Driver, London; Richard Woodward Isbell, Herefordshire; Malcolm Vincent Stace, Cheltenham; Samuel Edwin Evans, Limerick; Johnson Herbert, Yorkshire; Edwin Erasmus Robert Faulkner, India; Samuel Hampson, Cheshire: Gerald Fitzgerald Thomas, Cork; Maneckjee Sorabjee Mehta, Bombay; Albert Dunlop, Limavady; Arthur Dalziel Campbell, Canada; Thomas Morgan Martin, Dublin; John Sinclair, Lochgilphead; John Davidson, Lancashire; Herbert James Bell, Lorraine, Dumfries.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary Monthly Examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, February 10, 11, 12, and 13, the following candidates were successful:—

For the licence to practise Medicine—

Coghlan, Patrick Francis. | Newland, Peter Frederick.
Collier, John David. | Quin, John Dominick.

For the licence to practise Midwifery—

Newland, Peter Frederick.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed the necessary examinations, and obtained the diploma of Licentiate in Dental Surgery of the College, on the 30th ult.:—

Peter Crombie, Aberdeen. | Walter Whitehouse, London.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 13:—

Rigden, Benjamin, M.R.C.S. Eng., Canterbury.
Westwood, Henry Owen, L.R.C.P. & S. Edin., The Laurels, Stourbridge.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Jerome, John William, King's College.
Torbitt, Charles, Birmingham College.
Wood, Edward Arthur, St. Mary's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

FENNELL, JAMES PATRICK, L.K.Q.C.P.I., L.M., L.R.C.S.I.—House-Surgeon to the Stourbridge Dispensary, *vice* W. R. Coesham, M.D., resigned.

PROWSE, ARTHUR B., M.B. Lond., M.R.C.S.—Resident Medical Officer to the London Fever Hospital, *vice* Harvey, resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—Staff Surgeon Edward Brereton Broster has been promoted to the rank of Fleet Surgeon in her Majesty's Fleet, with seniority of January 24, 1879.

WAR OFFICE.—Surgeon Dennis James O'Flynn, M.D., has been placed on temporary half-pay.

BIRTHS.

BRABAZON.—On February 11, at Lymm, Cheshire, the wife of William Philip Brabazon, M.D., of a son.

CLOTHIER.—On February 13, at 6, Ridgmount-terrace, Highgate, the wife of Henry Clothier, M.D. Lond., of a daughter.

DARBISHIRE.—On February 14, at 68, Addison-road, Kensington, the wife of S. D. Darbishire, M.B. Oxon., of a son.

FAUGHT.—On January 18, at Sitapur, Oudh, India, the wife of Surgeon-Major J. G. Faught, M.R.C.S. Eng., of a son.

MACSWINEY.—On February 12, at Dover, the wife of Surgeon E. V. MacSwiney, M.D., A.M.D., of a daughter.

MARRIAGES.

BRIGGS—WALESBY.—On February 12, at Ranby, Lincolnshire, Surgeon Harry B. Briggs, M.B., Indian Medical Department, to Hannah Maria, youngest daughter of J. S. Walesby, Esq., of Ranby House.

CROSSMAN—ROWE.—On February 17, at Shadwell, John Crossman, M.R.C.S.E., of 138, Wandsworth-road, S.W., to Maria Langdon, eldest daughter of Sampson Taylor Rowe, of Redruth.

PILTER—UMPLEBY.—On February 12, at Bedale, the Rev. William Turnbull Pilter, late of St. Clement's, Leeds, to Margaret Mary Anne, eldest daughter of Henry Umpleby, M.D., of Bedale.

SANCTUARY—MACDERMOTT.—On February 13, at Powerstock, Thomas Sanctuary, M.B., of Hayle, Cornwall, to Emily, daughter of the late Rev. John MacDermott, English Chaplain at Biarritz.

SPRATT—SMITH.—On February 1, at St. George's, Hanover-square, J. Eldridge Spratt, L.F.P.S. Glasg., of Brook-street, Hanover-square, to Clara, daughter of the late J. S. Brook-Smith, Surgeon, of Oxford.

DEATHS.

CARTER, GEORGE REDSULL, M.R.C.S. Eng., at Castle-terrace, Deal, on February 12, aged 66.

CHEESMAN, JANE ANNE, wife of George Cheesman, L.R.C.P., M.R.C.S., at Marland House, Southampton, on February 15, in her 49th year.

COURTNEY, SYDNEY C., M.D., Surgeon-Major Bengal Army, at Peshawur, from tetanus, on February 10, in his 44th year.

HOYSTED, ELIZA A. W. W., wife of Surgeon-Major J. Hoysted, L.K.Q.C.P. Ire., at Birr Barracks, Parsonstown, on February 12.

MERCER, WILLIAM, M.R.C.S. Eng., at Wadhurst, Sussex, on February 12, aged 59.

MILLER, HUGH, M.D., at Broomfield, Shandon, N.B., on February 11, aged 66.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

LIVERPOOL ROYAL INFIRMARY.—Resident Medical Officer. Candidates must be unmarried, duly registered, and possess at least one medical and one surgical diploma, licence, or degree, recognised by the Medical Council. Applications and testimonials to the Chairman of the Committee on or before March 12.

RIPON DISPENSARY.—Resident House-Surgeon and Dispenser. Applicants must be unmarried. Applications, with testimonials as to professional ability and moral character, to the Honorary Secretaries.

UNION AND PAROCHIAL MEDICAL SERVICE.

RESIGNATIONS.

Coventry Union.—Mr. Millership has resigned the Second District; salary £68 per annum.

Leeds Union.—Dr. Wales has resigned the office of Assistant Medical Officer at the Workhouse; salary £100 per annum.

APPOINTMENTS.

Basingstoke Union.—Charles H. Johnson, M.R.C.S. Eng., L.S.A., to the Fourth District.

Longtown Union.—S. F. McLachlan, M.B. and C.M. Glasg., to the Low District and the Workhouse.

Petersfield Union.—Wm. F. Thurston, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin., to the First District.

St. George's Union.—Charles W. Waylen, M.R.C.S. Eng., L.S.A., to the E and F District; Samuel Benton, M.R.C.S. Eng., L.R.C.P. Lond., to the A District.

Thorne Union.—John Cameron, M.D. Glasg., L.R.C.S. Edin., to the Epworth District.

Uxbridge Union.—Alexander D. Murray, M.C. and B.M. Edin., L.R.C.S. Edin., L.R.C.P. Edin., to the Harefield District.

Wigan Union.—G. G. Tatham, M.D. Ire., L.R.C.S. Edin., to the First District and the Workhouse.

MR. GALLENDER has just returned from his visit to America, which he has found a very enjoyable one in professional as in other respects.

THE ROYAL COLLEGE OF SURGEONS.—On Friday evening last week, after the delivery of the Hunterian Oration, the President and Council of the Royal College of Surgeons gave a banquet to a distinguished company in the library of the College. Upwards of one hundred guests, we understand, sat down to dinner, among whom were eminent representatives of the two Houses of Parliament, of law, physic, and divinity, of the public services, and of literature, science, and art. After the entertainment, which was not over, it is said, till close upon midnight, some of the guests accompanied the President to the museum, which had been brilliantly lit up for the occasion.

LADY STUDENTS.—Eleven ladies presented themselves for examination at the recent Matriculation Examination of the University of London. Of these, nine passed; out of these nine, six are in the "Honours" division, four being marked as deserving prizes, and one standing second among the whole number of candidates examined. At the last Preliminary Examination in Arts, etc., at the Society of Apothecaries there were also some lady students, one of whom (Miss Frances Harris) was placed in the first division, and in the second were Clara S. Hopgood and Emma M. Walker.

COOKS AND DOCTORS.—It is related of a celebrated physician, Philippe Hecquet, born at Abbeville in 1661, that when he was called to visit any wealthy patient, he frequently repaired to the kitchen in order to shake hands with the *chefs* and cooks, and exhort them to continue to fulfil their occupations diligently. "I owe you, my friends," he would say to them, "my gratitude for all the good services which you have rendered to us doctors, for without you, and your art of poisoning, the Faculty would soon find itself in the workhouse."—*Union Méd.*, February 13.

SEDATIVE ACTION OF QUINIA ON THE NECK OF THE BLADDER.—Dr. Simmons, of the Ken Hospital, Yokohama, Japan, observes that the relief obtained in some painful affections of the bladder by injecting quinia into the viscus is generally known; but lately he discovered accidentally that large doses of from ten to fifteen grains acted as beneficially when taken by the mouth in a case of painful and persistent tenesmus of the organ. In two other severe cases it has been tried with the same benefit. This sedative action, he suggests, may explain the action of quinia in preventing urethral fever when administered prior to operations on the part.

THE YELLOW FEVER AT MEMPHIS.—A correspondent of the *Boston Medical Journal* (November 21) gives a graphic account of the terrible ravages committed by the late epidemic. He states that a mere simple narration of facts occurring during its two months' prevalence would resemble the writing of sensational fiction. An enormous exodus of the population took place, so that probably not more than 16,000 out of a population of more than 50,000 remained. Aid from a distance was invoked, and physicians arrived from various parts of the south and north-west. The Howard Association, for furnishing nurses, medicines, and the requirements for the sick-room, which had done so much good in former epidemics, was in the present one compelled to furnish medical attendance also, the volunteer medical service being placed under the absolute control of Dr. Mitchell, one of the most prominent practitioners of the city.

TOTAL EXTIRPATION OF THE THYROID.—Dr. Wölfler exhibited, at the Vienna Medical Society, a woman, aged thirty-five, from whom two months previously Prof. Billroth had removed the entire thyroid. Thirteen ligatures had to be applied, and the gland, when removed, weighed fifty grammes. Prof. Billroth, in separating the adhering portions, enclosed them in hæmostatic forceps, and then divided them, thus avoiding all hæmorrhage. Lister's dressing was applied, and during the nine days after the operation that it remained on there was scarcely any fever. Extirpation had also been performed on twelve other patients during the year with successful results, the size of the tumour having varied from that of an egg to that of a child's head. The mean duration of treatment was seventeen days.—*Wien. Med. Woch.*, January 11.

SALINE PURGATIVES IN DYSENTERY.—Dr. Lidell, of New York, states that a prolonged experience, both in private and military practice, enables him to confirm most completely the statements of those who hold that saline purgatives prove the best means of treating epidemic dysentery. The cases in which they are especially indicated are—1. Those in which the bowels are habitually constipated, as in females and the sedentary, these being generally burdened with intestinal accumulations, which can only be got rid of by repeated doses of purgatives. 2. Cases of bilious dysentery. 3. Cases in which portal congestion is present. 4. Cases complicated with malarial fever, or with malarial intoxication and ague-cake. 6. Cases of chronic dysentery. In all cases the doses should be repeated until bilious and fæculent matters appear in the stools.—*American Jour. of Med. Science*, January.

INEQUALITY IN LENGTH OF THE LOWER LIMBS.—Dr. Hunt, of the Pennsylvania Hospital, relates (*American Journal of Medical Science*, January) an account of a trial for malpraxis which was brought upon the ground that the femur of a boy that had been fractured was shortened by five-eighths of an inch. A measurement of a healthy boy's limbs showed one of these to be shorter than the other by three-eighths of an inch. The action was abandoned. Dr. Hunt says, "I wish to make a claim of priority in the discovery and full surgical appreciation of the fact that asymmetry as to the length of the lower limbs of the same person is the rule, and not the exception." He furnishes references to accounts of the results of measurements confirmatory of this view that have been published in America. Also he prints a note from Sir James Paget, who states that he very rarely uses measuring tapes or anything but the eye.

A PECULIARITY IN THE RICKETY PELVIS.—Prof. Depaul, at the Clinique (*Gaz. des Hop.*, December 17), called the attention of his class to a rickety deformity of the pelvis which is only occasionally observed. He was the first to describe it twenty five years ago, since which time he has met with new examples. A pelvis so affected presents at certain points of the upper aperture, besides a contraction, some sharp bony lamellæ, cutting sometimes like the blade of a bistoury—corresponding in position to certain muscular insertions at the symphysis pubis or the iliopectineal eminence. These bony lamellæ cause most serious mischief; for on the head of the child, covered by the uterus, pressing against their cutting surfaces, an incision or even a true perforation of the uterine wall may be the consequence. In three such cases M. Depaul has known a true hole to have been produced, establishing a communication between the interior of the cavity of the uterus and the neighbouring parts. These bony projections, hidden by the tendinous or muscular insertions, cannot be detected during the labour.

THE CÆSARIAN OPERATION IN AMERICA AND IN GREAT BRITAIN.—In the *American Journal of Med. Science* for January, Dr. Harris, of Philadelphia, publishes an elaborate statistical study of 100 cases of Cæsarian section which have been performed in the United States during the present century. The general results are that forty-four women were saved, and forty-eight children were born alive. Many important points are brought out, especially the preferability of this operation to craniotomy, and the immense importance of performing it early. Of twenty-four women who are recorded to have been only a short time in labour when it was performed, eighteen were saved; all the children being alive but two, and nineteen being saved. In answer to the question why the operation proves so much more fatal in this country, he observes that the difference can only to a slight degree be explained by greater delay. Judging from the statistics of the two countries, Dr. Harris says, "If all the operations in the two countries were to take place during the first twelve hours of labour, I should expect the result to show less than five women saved in Great Britain for ten in the United States, and the proportion of children about the same, or 75 to 80 per cent. in each country." The only causes explanatory of this difference are the dryness of climate in the United States, and the absence of a beer-drinking female peasantry. It is true the results of ovariotomy are much the same in both countries, but this may depend upon the different social positions of the subjects of this operation, the Cæsarian operation being almost confined to women of the lowest classes, who by poverty of

living have become the subjects of deformity of the pelvis. Dampness of climate, extreme poverty, and beer-drinking, then, appear as the only assignable causes of the difference of results.

CHANGES IN THE MEDICAL STAFF OF DUBLIN HOSPITALS.—The death of Mr. Tyrrell some weeks ago caused a vacancy in the surgical staff of the Mater Misericordiæ Hospital, which has recently been filled up by the appointment of Mr. Kilgarriff, one of the Surgeons to the Charitable Infirmary, Jervis-street. Mr. William Stoker is likely to be appointed successor to Mr. Kilgarriff as Surgeon to Jervis-street Hospital. Mr. B. F. McDowell's death leaves a vacancy for a Surgeon to Mercer's Hospital, which will probably be filled by the appointment of Mr. Alcock Nixon. A Surgeoncy to the Westmoreland Lock Hospital is also vacant. Dr. Joseph Redmond has just been appointed a temporary Physician to Cork-street Hospital and House of Recovery, in room of Dr. Christopher Gunn, resigned in consequence of ill-health. Dr. Gunn has also resigned the Physicianship to the Mater Misericordiæ Hospital which he held.

PROF. GAILLARD THOMAS ON ABDOMINAL PREGNANCY.—This distinguished accoucheur relates, in the *American Journal of Medical Science* for January, the histories of six cases of abdominal pregnancy which have occurred in his practice. Altogether he has met with fifteen cases of extra-uterine pregnancy, viz., these six, seven tubal, and two interstitial. These six abdominal all recovered, or, rather, five have, one being still under treatment. In three of the cases an operation was performed with successful issue, and two of the three treated by expectancy recovered after discharge of fœtus by the rectum. "I have operated," Dr. Thomas says, "six times for extra-uterine pregnancy, but never have I done so without good reason for believing that delay would be far more dangerous than interference. Of the six operations, four have saved lives that were in imminent peril. My experience makes me accept, as a rule, the precept that the operation had better, if possible, be delayed until Nature points to the channel of extrusion which she selects. The most dangerous of men, however, are those who implicitly, unthinkingly, obey rules. The bold and wise surgeon is he who keeps the rule for general guidance, breaking it unhesitatingly when an exceptional indication demands such a course. I must confess, too, that I regard the basis upon which rest the rules of practice with reference to this whole subject as unreliable and requiring complete and careful reconsideration."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Sorley.—Received with thanks.

Dr. J. Graham.—Received with thanks.

Health of Runcorn: the Canal-Boats Population.—At the monthly meeting of the Runcorn Improvement Commissioners, held a few days since, Mr. R. H. Mouritz, the Medical Officer of Health, stated that the rate of mortality for January last was 25·8 per 1000 per annum, showing a decrease on that of the previous month. Thirty deaths were registered during the month. Owing to the continued prevalence of a low temperature, pulmonary disease exhibited a high fatality. Mr. Mouritz also presented his yearly report, which stated that there had been a high death-rate, which had, in a great measure, been brought about by the prevalence of zymotic disease. Some of this class of diseases had been intermittent throughout the year, and their continued existence was, no doubt, due to the introduction of fresh contagion by the canal-boat population. He hoped that by the rigid observance of the recent Act of Parliament with reference to canal-boats, this mode of propagating disease might be abated. During the year, 388 deaths and 633 births had been registered in Runcorn. The death-rate was equal to 27·3 per 1000 of the estimated population, and the birth-rate to 45·3.

Opium in Japan.—Lord Salisbury, in reply to a letter from the Anglo-Oriental Society for the Suppression of the Opium Trade, in reference to two occasions of smuggling, and the probable introduction, therefore, of opium into Japan, in contradiction to the treaty between Great Britain and Japan, writes that "under the convention with Japan of June 25, 1866, the importation into that country of opium of every description is prohibited, and that regulations are at the present time under consideration for the admission of medicinal opium under suitable conditions."

Dens Sap., Hastings.—The name of W. B. Bacon, of Tunbridge Wells, does not appear in the Calendar as being a Licentiate in Dental Surgery of the Royal College of Surgeons of England.

Drunkenness in Worcestershire.—An important report, by a Committee of Justices of the County of Worcester, appointed at quarter-sessions last year, "to consider whether any, and if so, what steps can be taken by the justices of the county with the view of diminishing drunkenness," has now been issued. The Committee give elaborate details and statistics on the subject, but express their inability to account satisfactorily for the extraordinary increase of drunkenness in the two years 1876 and 1877. They add—"The following facts are, however, material as throwing light on the subject:—1. The hours of work have been shorter. 2. In some localities the police have exercised increased vigilance. 3. Licences have been granted in large numbers to grocers and others." The Committee submit various important recommendations as to new licences, renewals and transfer of licences, and the granting of occasional licences. With regard to the punishment of convicted persons, attention is drawn to the Act of 1872, which imposes cumulative penalties for drunkenness, and they recommend the adoption as far as practicable, of "a uniform and severe punishment for the offence." They find that in many petty sessional divisions the provisions of the statute, imposing heavier punishment upon a second or subsequent offence within twelve months, have never been carried into effect. In conclusion, the Committee urge "the expediency of adopting in all cases where it is applicable, whether the person accused be a drunkard or a licensed person, the cumulative system of punishment, of which experience has demonstrated the success."

Sewage-Farms and the late Frost.—The apparently exceptional condition of the Dewsbury sewage-farm during the late long, severe frost is a noticeable fact. The managers, after eight weeks of frost, were able to report that there had been no interruption whatever in their operations. The population of Dewsbury numbers 27,000 persons. The drainage is conveyed on to two plots of land alternately, and it appears that the temperature has been high enough to thaw the frozen soil and the ice which had accumulated upon it. The soil has consequently been constantly open for the percolation of the liquid manure, the filtration and purification of which has not been checked or impeded at all. Local circumstances may, no doubt, account to a great extent for such a result. This sewage-farm has a dry subsoil, capable of carrying off the purified liquid in considerable quantities. It would be interesting to know how other sewage-farms have fared during the same period.

A Competitor.—The result cannot be known for some time. Essays for the Collegial Triennial Prize must be sent in on or before December 31 next. The subject for the Jacksonian Prize for the present year is "The Disease of the Lymphatic System known as Hodgkin's Disease or Lymphadenoma."

Hastings.—The Medical Officer of Health for Hastings, in his annual report for 1878, shows that the death-rate for the year was 16·77 per 1000, and the birth-rate 27·25 per 1000.

Sanitary Condition of Totnes, Devon.—Mr. J. T. Cape, the Medical Officer of Health, in his annual report for the year 1878, states that he had found the villages, hamlets, etc., fairly clean, and that each year there was less nuisance to deal with. Various improvements had been effected during the year, both in respect to the supply of water and sewerage. There had been 269 deaths, giving a death-rate of 15·7 per 1000. There were 448 births, showing an increase over the deaths of 179, at the rate of 10·5 per 1000.

Boarding out Pauper Children.—A recent Parliamentary return for the past year of the number of boarded-out children in England and Wales, which contains detailed statistics from every union in each county, shows that, whereas three years ago (the date of the last return) the total number of pauper children boarded out within the limits of their respective unions was 2546, it has now risen to 8674. In the same period the number of those boarded out at a distance from their own unions, and under the special regulations applicable to this class, has increased from 218 to 368. The total number of the two classes of boarded-out children in England and Wales, therefore, now amounts to 9242, being an increase of 6478. The Parliamentary return in question has been obtained by the Committee for promoting the extension of the boarding-out system through the good offices of Sir J. Eardley-Wilmot, Bart., M.P.

Heating Dwellings by Steam.—At Berlin, a plan of providing dwellings with steam heating, after the manner in which they are supplied with gas and water, is apparently likely to be adopted in at least a portion of the city. An ex-sanitary officer has received the approval of the President of the Police Board for his suggestion of a preliminary experiment in a western suburb. The land is taken, capital has been found, and a pattern station will be in course of construction.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—El Siglo Médico—Révue Médicale Française et Etrangère—Archives of Dermatology—New York Medical Journal—North Carolina Medical Journal—Students' Journal and Hospital Gazette—Medical Bulletin—Revue d'Hygiène.

BOOKS AND PAMPHLETS RECEIVED—

Fourteenth Annual Report of the Sanitary Commissioner with the Government of India—Ernst Haeckel, The Evolution of Man: a Popular Exposition of the Principal Points of Human Ontogeny and Phylogeny.

COMMUNICATIONS have been received from—

Mr. J. Hamilton Craigie, London; Mr. John Chatto, London; Mr. W. E. Poole, London; Dr. J. Hughlings-Jackson, London; Dr. B. Hunter Semple, London; Professor Humphry, Cambridge; Mr. Rickman J. Godlee, London; Mr. D. Colquhoun, London; Mr. B. R. Wheatley, London; Dr. R. Druitt, London; Mr. W. Douglas Hemming, Bournemouth; Mr. Thomas Cooke, London; Mr. Shirley Murphy, London; Mr. Walter Austin, London; The Registrar of Apothecaries' Hall, London; The Secretary of the Royal College of Surgeons, Edinburgh; Dr. Norman Chevers, London; Dr. Sparks, Mentone; Dr. John Day, Geelong; Mr. W. Donald Napier, London; Mr. R. Clement Lucas, London; The Registrar of the Royal College of Physicians, London; Mr. J. E. Ingpen, London; Dr. John B. C. Gazzo, Lafourche, U.S.; The Registrar-General, Edinburgh; Dr. James Russell, Birmingham; Dr. C. Guitan, Vevey; Dr. S. K. Cotter, Tralee Barracks; Dr. Taylor, London; Mr. Gough, London; Mr. B. Marlett Boddy, Dartford; The Honorary Secretary of the Medical Alliance Association, London.

APPOINTMENTS FOR THE WEEK.

February 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. Reginald W. Macan, "On Lessing."

24. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Henry Smith and Mr. Royes Bell, "Cases illustrating the Division of Internal Condyle of the Femur for Genu Valgum (Ogden's Operation)." Mr. Jabez Hogg, "Arsenical Wall-paper Poisoning."

Royal College of Surgeons of England, 4 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

25. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Christopher Heath, "On the Diagnosis and Treatment of Ruptured Bladder." Mr. Charles Higgens, "On Operation for Extraction of Cataract."

26. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Hunterian Society (London Institution), 8 p.m. Dr. J. Braxton Hicks (the President) will deliver the Introductory Address. Mr. F. M. Corner, "On the Hyperdistension of Abscess Cavities with Antiseptic Fluids."

Royal College of Surgeons of England, 4 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

27. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Sound."

28. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m. Mr. Bryant, "A Case of Acute Intestinal Obstruction—Laparotomy—Removal of Large Impacted Gall-Stone from the Ileum—Death from Peritonitis." Mr. Barwell, "Two Cases of Left Lumbar Colotomy." Mr. Bellamy, "A Case of Intestinal Obstruction treated by Gastrotomy." Mr. Lawson, "A Case of Successful Tracheotomy in the Last Stage of Diphtheria." Mr. Pugin Thornton, "A Case of Successful Tracheotomy in the Last Stage of Diphtheria." Mr. Heath, "Foreign Body (end of a Silver Catheter) in the Bladder—Median Lithotomy—Recovery." Mr. Morrant Baker will exhibit a Case in which a Large Rodent Ulcer of the Scalp has been Removed by Operation.

Quekett Microscopical Club (University College), 8 p.m. Dr. Matthews, "On a Mode of Displaying Objects by the Microscope irrespective of their size (the Micro-Megascope)." Dr. C. T. Hudson, "On the Rotifers by Dark-Field Illumination, Illustrated by Transparencies."

Royal College of Surgeons of England, 3 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Sir W. Thomson, "On the Sorting Demon of Maxwell."

VITAL STATISTICS OF LONDON.

Week ending Saturday, Feb. 15, 1879.

BIRTHS.

Births of Boys, 1286; Girls, 1311; Total, 2597.
Average of 10 corresponding years 1869-78, 2412·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	806	840	1646
Average of the ten years 1869-78	845·3	813·0	1658·3
Average corrected to increased population ...	...	...	1774
Deaths of people aged 80 and upwards ...	...	...	76

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	4	1	4	1	16	...	2	...	4
North ...	751729	1	5	6	1	12	1	2	1	2
Central ...	334360	...	...	2	...	2	...	1	...	...
East	639111	1	5	5	2	18	...	1	2	2
South	967692	14	6	14	3	19	...	4	4	7
Total	3254260	20	17	31	7	67	1	10	7	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·217 in.
Mean temperature	43·8°
Highest point of thermometer	52·5°
Lowest point of thermometer	34·9°
Mean dew-point temperature	41·4°
General direction of wind	S.W. & S.S.E.
Whole amount of rain in the week	1·29 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 15, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Feb. 15.	Deaths Registered during the week ending Feb. 15.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3620868	48·0	2597	1646	52·8	34·9	43·8	6·56	1·29	3·28
Brighton	105608	44·9	58	42	49·4	37·0	43·9	6·61	1·25	3·17
Portsmouth ...	131821	29·4	64	41	...	...	...	...	...	...
Norwich	85222	11·4	68	42	55·0	35·0	42·2	5·67	1·10	2·79
Plymouth	74293	53·3	35	25	52·0	36·5	46·1	7·84	2·10	5·33
Bristol	209947	47·2	163	101	54·5	34·2	44·3	6·84	1·37	3·48
Wolverhampton ...	75100	22·1	53	30	52·6	29·3	40·5	4·72	0·49	1·24
Birmingham ...	388884	46·3	320	192	...	...	...	...	...	...
Leicester	125622	39·3	103	51	55·0	33·0	42·7	5·95	0·37	0·94
Nottingham ...	169396	17·0	132	67	53·9	32·1	42·0	5·56	0·96	2·44
Liverpool	538338	103·3	424	367	51·8	32·4	40·0	4·44	0·44	1·12
Manchester ...	361819	84·3	285	281	...	...	...	...	...	...
Salford	177849	34·4	151	110	...	...	...	...	...	...
Oldham	111318	23·9	61	42	...	...	...	...	...	...
Bradford	191046	26·5	151	79	50·1	34·0	40·1	4·50	1·24	3·15
Leeds	311860	14·5	214	148	51·0	34·0	40·5	4·72	1·19	3·02
Sheffield	297138	15·1	223	125	54·0	32·5	41·5	5·28	0·88	2·18
Hull	146347	40·3	107	59	54·0	32·0	39·5	4·17	0·82	2·08
Sunderland ...	114575	41·4	90	53	44·0	35·0	38·0	3·33	0·88	2·24
Newcastle-on-Tyne	146948	27·4	118	54	...	...	...	...	...	...
Edinburgh	226075	53·9	127	103	39·2	30·0	35·8	2·12	0·55	1·40
Glasgow	578158	95·8	387	295	44·7	32·2	38·0	3·33	0·46	1·17
Dublin	314686	31·3	223	337	50·0	31·5	42·2	5·67	0·68	1·68
Total of 23 Towns in United Kingdom	8502896	38·6	6154	4293	55·0	29·3	41·2	5·11	0·94	2·39

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·23 in. The lowest reading was 28·68 in. on Monday afternoon, and the highest 29·73 in. on Wednesday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

X.

CLINICAL LECTURE
ON SPASMODIC DYSMENORRHŒA.

BEING THE TENTH OF A COURSE OF LECTURES DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery to the Hospital.

THERE are many kinds of dysmenorrhœa, some of which have little claim to the name. The most characteristic form of dysmenorrhœa is that which I have called spasmodic. A woman may be said to have dysmenorrhœa if she suffers from headache during the monthly period, or if she has sickness. In the same way she is said to have ovarian dysmenorrhœa if she has pain in one or other ovary during the monthly period. But that is not dysmenorrhœa proper. There are two chief kinds of dysmenorrhœa—the inflammatory and the spasmodic. Spasmodic dysmenorrhœa is extensively known by the name of neuralgic; latterly it has been generally described as obstructive or mechanical dysmenorrhœa; these words "obstructive" and "mechanical" implying a theory of the disease which I shall speak of presently, and which I am sure is quite erroneous. This disease called neuralgic, obstructive, mechanical, or spasmodic, is a disease of the nature of a neurosis, in which the contractions of the uterus cause great pain.

Contractions of the uterus are much better studied, for reasons that are plain, in the lower animals than in women; the contractions, particularly, of the unimpregnated uterus. From observation of them, and for other reasons, physiologists are agreed that there are contractions more or less regularly going on in the unimpregnated uterus of women, and especially in menstruation, whether healthy or morbid. The disease we are now considering is, in its essence, morbid contractions of the uterus occurring in connexion with menstruation.

On the subject of these contractions I would like to say a few words. In some conditions of disease, as in some uterine fibroids that are embedded, the contractions are easily made out; in other diseases, such as dysmenorrhœa, they are only believed to exist as the result of an argument. Some of the phenomena, which are explained generally by contraction of the unimpregnated uterus, are not due to contractions at all; they are due to the pressure relations of the uterus—a very difficult subject. For instance, if you place an intra-uterine pessary or a tangle-tent into the uterus, it is generally expelled if a plug is not put into the vagina to keep it in its position; and this expulsion of the tent or of the pessary is supposed to be produced by contractions of the organ. It is very natural to suppose so, but I am sure it is usually not the case. It arises from the condition of the woman's uterus as to positive or negative abdominal pressure. You can easily study this subject in any case in which you are placing a tent or a stick of zinc-alum into the uterus or its cervix. You will find in most uteri the tent or the zinc-alum slips out; but it is manifestly not on account of contractions. Contractions are not brought on so quickly and in a way so exactly in accordance with the pushing in of the tent. Besides, you will find many uteri in which the tent or the pessary, instead of coming out, has a tendency to go in—an injurious tendency. Cases are not very rare in which a metallic pessary, with a button upon the lower end of it to keep it in its place, is drawn into the uterus altogether—button and all. I have seen this happen several times; and considerable difficulty may arise in removing it, when it has thus got incarcerated in the uterus. These facts contribute to showing that the phenomena we are speaking of are not caused by uterine contractions; and I shall tell you another remarkable phenomenon which illustrates the same thing. The sticky cervical mucus, as you are all aware, in 999 cases out of 1000 hangs out of the uterus into the vagina; but I have seen it, instead of hanging out of the uterus into the vagina, ascending, and filling the cavity of the body of the uterus. This forms a good text, of great importance in pathology, which I hope to lecture upon some other day. This function of the uterus, when it acts in the way I have mentioned, drawing the cervical mucus into the cavity of its body instead of expelling it, certainly tends to produce morbid conditions of the uterus itself. The same condition is illustrated in pregnancy. The ascent of the pregnant uterus itself is a phenomenon in this category; but, during pregnancy, as I have seen in several dissections, the cervical mucus, instead of running into the vagina, ascends and runs into the uterus, and hangs into the uterus instead of into the vagina; and this circumstance has led to considerable mistakes recently in the investigation of the condition of the cervix uteri during pregnancy.

The best evidence we have of uterine contractions during menstruation is the observation of cases of dysmenorrhœa spasmodica, and this observation reveals that the contractions may be either clonic or tonic. The clonic contractions are probably the most frequent. By "clonic" you know I mean come-and-go contractions like uterine pains. You will find women suffering from dysmenorrhœa tell you the pain comes in pangs; and in the most violent pangs, in the most severe cases, the contractions not only affect the uterus, but may also affect the bladder and rectum, producing strangury and tenesmus, and also violent bearing down by reflected influence. Tonic contractions of the uterus, however, are not uncommon, where you have the pain incessant, probably because the contraction is almost unceasing. Some have sought for an analogy for this disease in urethral stricture. I shall mention two analogous diseases. The first is after-pains. You will often read in books that when a woman has after-pains there is a clot or a retained bit of placenta, or something which the uterus is attempting to expel; and this may be true, but such after-pains are not severe. That is not a disease,—that is a healthy condition of the womb; the womb is doing its duty, as it were, and such after-pains are not very painful. The real disease of after-pains is a disease in which the recently emptied uterus goes into the most violent and painful contractions, without any discoverable object in view; and a severe case of this kind is a most painful disease, far more painful than the after-pains which come to expel a clot or a bit of retained placenta. Now, these violent after-pains are, I believe, connected not only with a morbid condition of the muscular tissue, but chiefly with a catarrhal condition of the mucous membrane covering the inside of the body of the uterus.

There is another disease not uterine, with which spasmodic dysmenorrhœa has an analogy—spasmodic asthma. This is a disease affecting muscular fibres, and it is induced, as you know, in those who have a tendency to it, by the slightest catarrhal affection of the trachea and bronchi; and it is cured under a copious secretion from the mucous membrane, just as dysmenorrhœa is generally cured when the menses run freely. In healthy menstruation a woman has the mucous membrane of the cavity of the uterus in a catarrhal condition; it is not called catarrhal because it is natural and healthy, while catarrh implies something morbid.

Spasmodic dysmenorrhœa occurs at any time. It occurs in women otherwise most healthy. It is specially liable to attack women at the marriageable age; still more, women who, although married, are sterile. It is very liable also to attack women who have had large families, we may call them excessive families; although, in such circumstances, the elderly woman makes less to-do about it, and does not get for herself the same amount of sympathy as the young woman does. There is another set of circumstances in which it frequently occurs, namely, when a fibroid is beginning to grow in the muscular tissue. If you find an elderly menstruating woman having persistent dysmenorrhœa, you should suspect that there is some growth of this nature going on, and you will frequently find it verified in the further history of the case. Only a few minutes ago I saw a case of this kind, where a woman, nearly forty years of age, began about two years ago to have severe dysmenorrhœa. She had seen several doctors of eminence, who told her that her disease was simple dysmenorrhœa, and I have no doubt they spoke truly as far as diagnosis could go. But now, after two years, there is a considerable fibroid in the uterus, and there can be no doubt the dysmenorrhœa was started by the growth of this tumour, which at first was too small to be discoverable. Intense dysmenorrhœa, with fibroids of considerable size, is also far from rare. The disease I am considering is a disease that frequently occurs in minor forms, especially in connexion with unnatural or morbid conditions of the uterus, besides those that I have mentioned. For instance,

recent authors say a great deal about its connexion with uterine displacement. But dysmenorrhœa produced by this cause is slight in degree, and is a symptom of the displacement, or of some morbid condition complicating the displacement. This displacement has been a favourite cause with those who believe that the dysmenorrhœa is mechanical or obstructive. They say that flexion of the passage obstructs the discharge of the blood. Nothing could be more erroneous. There was recently exhibited to the Obstetrical Society the section of a uterus in the extremest degree of acute flexion; and anybody who takes the trouble to look at that section will see that the flow of menses along that flexed uterus would be obstructed only in a degree that practically cannot be of the slightest moment—not nearly so much obstructed as the passage of the blood along a flexed limb; not nearly so much obstructed as the passage of the water along a bend of the river Thames. Blood could run out through that model of an excessively flexed uterus just about as easily as if it were straight. In such cases the blood is said to be dammed up in the body of the uterus; and the uterus is described as thereby hypertrophied or dilated. I am satisfied that that is bad pathology. When you have dysmenorrhœa spasmodica accompanying real mechanical difficulty, then, as I have already said when speaking of after-pains produced by a clot in the uterus, or a retained bit of placenta, you have very moderate pain; you have not a fine specimen of the disease at all—the dysmenorrhœa is trifling. This is exemplified in cases where you have truly mechanical difficulty, cases of dysmenorrhœa membranosa, where the membrane has to be expelled through the narrow channel. Well, in in such cases, everybody knows the pain is slight compared with that of a good case of the disease we are discussing.

Dysmenorrhœa spasmodica may occur at any time. The woman may have the violent pains of dysmenorrhœa apart entirely from ovulation or menstruation. In the majority of cases the pains begin before menstruation begins; in the majority of cases it is most severe just as the menses begin to flow; and in the majority of cases it diminishes as soon as the flow is free. It is seldom that a woman has violent dysmenorrhœa after the first two days of menstruation; for within the first two days of menstruation the quantity of the discharge has reached its highest. This fact, which is subversive of the mechanical theory, is familiar to women. Nothing is more common than for a woman suffering from dysmenorrhœa to tell you that she has most pain when she has least discharge—that when, for any reason, the menses become scanty, the dysmenorrhœa becomes worse and worse; but when the menses become abundant the dysmenorrhœa is diminished.

Dysmenorrhœa not infrequently, even in the severest cases, disappears for one or two periods. In one of the severest cases I ever saw, a young woman in whom I was very reluctant to resort to mechanical treatment, the disease disappeared during her residence in Ireland for several months; it reappeared as soon as she came home to England. That fact, which I have seen illustrated in many other examples, is quite inconsistent with the popular theory of mechanical obstruction by stricture.

I must say a few words about the theory of this disease. I have told you that it is a spasmodic disease, not an obstructive one, and if our knowledge of it is to be improved, it will be from studying, not cases complicated by flexion or tumour or inflammation anywhere in the neighbourhood, or in any part of the uterus itself, but by studying simple cases. And simple cases are abundant: they are no rarity. Simple cases are those where an examination discovers no additional morbid condition whatever. These constitute the majority. No disease, tangible or visible, can be discovered, and yet the woman has this violent disease near and during her monthly time. When examination is made with a view to find out that the case is a simple one, a uterine probe may be passed into the organ. As soon as it advances little more than an inch, it approaches the seat of the disease, the body of the uterus. In a healthy woman the internal os uteri and the whole interior of the body of the uterus are sensitive; that is to say, the touching of them by a probe is disagreeable. In a woman suffering from dysmenorrhœa spasmodica, the pain of touching the internal os is intense, and the pain is aggravated by passing the probe further on and touching the body and fundus; and in every characteristic case the woman at once tells you that that is the pain of her disease. The touching of these parts brings on the spasms, and the removal of the instrument may not be followed by arrestment of the spasms for a few minutes. It is in these simplest cases of dysmenorrhœa that the disease must be studied in order to discover its true nature and cure.

I have already said the disease is frequently complicated by uterine displacement and by uterine hypertrophy; but so far from these having anything to do with the most characteristic form of the disease, the worst cases occur in uteri that are ill-developed, uteri that are small. We have had an illustration of this in "Martha" lately—a case in which our treatment did little good to the woman's dysmenorrhœa. This woman had an ill-developed uterus about two inches long, and acutely antiflexed. I must tell you of another case which occurred not long ago in Edinburgh, and which was seen by many physicians. In her the dysmenorrhœa was of the intensest kind; but it was without any bloody loss at all. I at one time possessed this woman's uterus, and it measured only about an inch and a half in length. Her sufferings were of the most intense kind; and, I may tell you, the most intense form of dysmenorrhœa constitutes one of the most severe and violent diseases that you will ever have an opportunity of seeing. The woman is, while it lasts, almost insensible, sometimes in a state of convulsion or spasm. She is cold, vomiting, and looks as if she were dying.

To-day I have not read to you any history of cases, because the reading of histories of these cases would not be, as in former lectures on other subjects, the filling up of a picture to give you a better idea of what we are speaking about. To go over all the details of cases of simple dysmenorrhœa would add very little to what I have told you. The women may be in perfect health, except this.

Before I pass on, I must say a little more about the mechanical theory. In the various cases that have been in "Martha" within this last year, we have found no stricture, no contraction of the passage through the womb, except in one case. Especially did we find no contraction when the woman was suffering from the pain; for, in order to satisfy ourselves as to the nature of the disease in some of the cases, we passed a bougie into the womb while the woman was in the agonies of dysmenorrhœa, and we found that the passage was clear. This subject of a passage for blood I have not time to enter upon at length; it has been carefully discussed in scientific papers. I merely remark that the smallest passage described, a "pin-point os uteri," as it is called, is quite enough to allow a hundred times as much blood to pass as there is any occasion for, or as offers to pass. Contraction, it is said, may be produced by swelling of the passage; but there is no special swelling of the passage, as may be found by examining in the way I have just described. Then another method of explaining the stricture is the blocking up by mucus or a blood-clot. But this kind of mechanical obstruction, even if it exists, does not induce severe dysmenorrhœa; it induces healthy uterine contractions not of a very painful kind, fitted to force on the clot or the obstructing mucus. In an ordinary woman the cervix uteri gives passage to a No. 9 of the male bougie series. The bougies I show you here are just like the male bougies, only with a different curve. No. 9 generally passes a virgin's internal os uteri without any difficulty. This is important for you to know in connexion with treatment. In the contracted cervix that I referred to, a No. 7 only could be passed at first. In treating a case of this kind you must find out what is the natural size of the cervix, in order to know how to adapt larger bougies to the case.

Now, how do you treat a case of *dysmenorrhœa spasmodica*? In the great majority you trust entirely to drugs and regimen; it is only in severe cases that you use mechanical treatment. Medicines for the treatment of this disease are not very efficient. Their great number and variety is a sufficient proof of itself that they are inefficient. Those which are most valuable are laxatives (especially salines), diaphoretics (especially hip-baths and guaiacum). Lastly, there is the treatment by drowning the pain with narcotics and anæsthetics. A familiar treatment, that mothers use, and often very efficiently, is well known. The young girl suffering in this way gets a hip-bath, a little strong gin-and-water hot, and is put to bed. She perspires and goes to sleep, and gets over the difficulty. But I cannot pass from narcotics without cautioning you, for social rather than for medical reasons, as to their use, especially the use of opiates. The disease is a

chronic one; it is likely to recur every month for a considerable time, and you are in very great danger of teaching your patient the opium habit, which is a very much greater evil, and, indeed, a greater disease, than the one you are curing. It is only in the rarest cases that you use opium, and recommend it to be used, systematically. In the immense majority of cases, even of those that may be called severe, if you are a wise practitioner you will say to yourself, "Rather the disease than teach my patient the baneful and almost incurable habit of opium-eating." In the course of my life I have known an immense extent of evil done by this prescription of opium for dysmenorrhœa—evil done not only to the patient herself, but to whole families: evil of very great degree.

Finally comes the mechanical treatment, and this treatment is very successful. I know no drug that can compare with this in its direct utility. I know very few treatments that are more decidedly useful than the treatment of dysmenorrhœa by mechanical means, and yet I recommend you, in the great majority of cases of dysmenorrhœa, not to resort to it. Dysmenorrhœa is a disease which occurs in virgins, and in them you will be most reluctant to use it. In married women who are sterile, you will be, on the other hand, easily induced to try the treatment, in the hope that you will not only cure the dysmenorrhœa, but also at the same time remove the sterility. In regard to the use of this treatment in virgins, I must say a few words in order to guide you as to when you are to resort to it. No rules that I can give you will make up for want of good sense and good feeling on your own part, but I shall give you some hints. The first is that you should, as a rule, not resort to this treatment in an unmarried young woman without the concurrence of three parties—firstly, your own approval; secondly, that of the mother or guardian of the patient; and thirdly, that of the patient herself. All of these should be quite aware of the circumstances and of what it is proposed to do. Then I believe you are justified in recommending it in cases—and they are not rare—where the woman's whole mode of subsistence is ruined. In one of the cases we had in "Martha" the patient insisted upon our doing anything whatever that was at all likely to relieve her, because she could not keep her situation as lady's maid, for she was confined to bed for three days every month by the disease. That was a sufficient reason in that case; and I can tell you that that girl was cured after a few days' treatment in "Martha," and came back to us to testify her gratitude for being able to keep her place, going about during her monthly period without letting her mistress know that she was ill at all. Then, in other cases, the general health is ruined; and this is not very uncommon. When a woman is laid up and prostrated by a severe attack of dysmenorrhœa every four weeks her health may gradually give way, and under such circumstances there can be no hesitation in resorting to the treatment. There is another set of cases where the severity of the pain is so excessive as to leave no doubt as to the propriety of resorting to any means that offer a hope of cure; and cases of this kind, although rare, are still such as you will all meet with in the course of your practice. In some cases the severity is not so much in the pain as in accompanying phenomena. Lately, for instance, I had no hesitation in recommending mechanical treatment in a young unmarried female, not because the pain was extreme, but because when the pain came she had attacks of suicidal mania; and these attacks of suicidal mania were severe when the dysmenorrhœa was severe, and if the dysmenorrhœa was slight they did not come at all. Under such circumstances no one would hesitate to recommend the mechanical treatment.

Now, the mechanical treatment is very simple if carried on on the oldest of all mechanical plans recommended for the treatment of this disease—that by bougies, such as I show you here. The treatment by bougies I recommend to you because it is unaccompanied by danger. The only evil result I have ever seen from it is a temporary perimetritis. It is a treatment, the innocence of which arises from the fact that there is no cutting, and that the instrument is not left in the womb above a few minutes at a time. It is allowed to remain till the pangs of pain which it brings on have passed. In order to effect a cure you must go up considerably above a No. 9. You must go up so as to stretch and distend the internal os uteri; and this stretching or distension of the internal os may require you, in different cases, to reach different sizes. A No. 11 is quite sufficient in many cases; in others you will go up to a 12 or 13—rarely above that. These various numbers are not all used in one day, but in successive days, or every second or third day, and generally the whole is effected in a few sittings—say from four to eight. You are not to expect that this treatment will cure every case. I can only tell you that most of the characteristic cases are, if not cured, at least greatly ameliorated. In several cases which have passed through "Martha" we have had failures, and we have had an ordinary amount of success. In one of them the success was remarkable: a single passage of the bougie through the internal os uteri seemed to be enough to dispel the woman's disease.

LECTURES ON
THE DIAGNOSIS OF EPILEPSY.

DELIVERED BEFORE THE HARVEIAN SOCIETY.

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LECTURE III.

(*Concluded from page* 143.)

COLOUR, sound, taste, and smell are psychical states *attending* nervous discharges; these sensations must not be spoken of as if they *were* nervous discharges. What we have called "crude sensations"—*e.g.*, "balls of fire," "noises in the ear," etc.—are also psychical states as much as normal sensations are; they *attend* excessive (epileptic) nervous discharges. These crude sensations, although as certainly psychical states as the "dreamy states" previously spoken of, are infinitely less elaborate; they are also far less elaborate than certain other psychical states now to be mentioned.

Let us give an example to show broadly the difference betwixt a crude sensation and an elaborate psychical state. Coloured vision—a crude sensation warning at the onset of some epileptic paroxysms—is sometimes quickly followed by "seeing faces." The mere statement declares the immense difference in elaborateness; the numerous different relations of sensations of colours, of extensions and distances, which make up the spectral image of a face, constitute a vastly more complex phenomenon than any development of colours and outlines attending an epileptic discharge. The most elaborate visual phenomena of some migrainous paroxysms—fortification outline, differently arranged colours, appearance of vibration, etc.,—are far less elaborate than a spectral face. There is as much difference betwixt "balls of fire" and a spectral face, as there is betwixt a house and heaps of materials of that house when pulled down; or betwixt a series of elaborate musical chords and the noise made by playing the notes of those chords in a few seconds. But such elaborate phenomena as spectral faces are, it is supposed, *less* elaborate than those psychical states we have called "dreamy states," and sometimes spoken of as being voluminous. Thus, a spectral face is a much less complex psychical state than the feeling of "being somewhere else," or of imagining that a thing now seen was formerly seen under the very same circumstances.

The inference from the foregoing is, that whilst the several crude sensations are due to (attend) the onset of the epileptic discharge, such a highly compound phenomenon as that of slightly developed sensations constituting by intricate relations a spectral face does not occur from (attend) an epileptic—that is, an excessive nervous—discharge; it is supposed that the elaborate psychical states occur during slightly raised activity, slightly increased discharges, of those nervous arrangements most definitely connected with the one in which the epileptic discharge begins. Let us now state crude sensation warnings in relation to corresponding elaborate psychical states.

It must not be forgotten that we are speaking of cases of epilepsy proper—that is to say, of cases in which loss of consciousness is an early event in the paroxysm. The crude sensation of coloured vision not unfrequently attends the onset of epileptiform seizures; it occurs often in migrainous paroxysms, which in a scientific classification are (sensory) epilepsies.

1. *Paroxysms beginning by an Epigastric Sensation.*—This is often accompanied or quickly followed by an emotion of

fear; the patient may *look* frightened ("startled," "guilty," etc.). Patients have used the following expressions:—"I feel frightened," "dread," "horror," "perfect anguish and despair." There is not always an epigastric sensation with the feeling of fear. One epileptic patient used the several expressions "come over very melancholy," "intense fear," "frightful feeling, worse than any pain"; this patient had no epigastric sensation. One patient, who referred his warning to the mid-sternal region, said he "felt bowed down with trouble," and then said it was not trouble, but as if he "had some difficulty to overcome"; it is possible that the crude systemic sensation in this case was respiratory. I suppose there will be two sorts of respiratory sensations, or two sensations referable to the active part of the respiratory apparatus; for the chest not only moves rhythmically in breathing (organic function), but is fixed for short intervals in "effort" (animal function); if so, there will be the two crude sensations, suffocation and sense of impediment to exertion.(a) Possibly the feeling of fear at the onset of an epileptic paroxysm determines the epileptic cry (Herpin).

It may of course be suggested that the fear is a normal fear, that the patient is naturally frightened because experience tells him that a fit is coming on. Patients usually repudiate this interpretation. Such an interpretation is not supported by analogy of some other morbid conditions. It is common enough for hypochondriacs to have intense fear or misery, and yet to declare that they have no outward cause for anxiety. It is notorious that suicides are not often those who have any real and, so to speak, external calamity, but often those who, as their friends, or even themselves, may put it, "have every worldly blessing." People are according to the state of their nervous systems; they may have the nervous conditions for fear or misery when there is no cause for either, just as a man in ague has the nervous condition for cold, and feels cold when he is hot. In some hypochondriacs, when a cause for their fear is alleged (*e.g.*, the belief that they will be eternally lost), it is plain that nervous exhaustion came first, and "appropriated" some commonly thought of cause for alarm. In many people remorse is a sign, not of true repentance, but of nervous exhaustion. Then in some few epileptics the stage of warning is declared to be pleasing. The epigastric sensation is sometimes accompanied by the "dreamy" state.

2. *Paroxysms beginning by Noises in the Ear.*—Not unfrequently the noise is followed by "hearing voices." In many cases, at least, the term "voices" is inappropriate, for the patient may hear words or sentences; he may "hear speeches," not vocal tones only.(b) I have heard a patient say that he heard the words "in his head," another that he "heard words without any sound." What these expressions mean I do not know.(c) This "hearing voices" would, I think, in a slight seizure, be strong evidence against auditory vertigo, supposing the other facts of the case were difficult of interpretation. For it should be remarked that the noise in the ear, and the sequent "voices," may sometimes be the sole seizure, although in all the cases in which I have yet observed this sequence, the patients have had also at other times severe epileptic paroxysms.

3. *If a fit begins by Coloured Vision* ("balls of fire," "flashes of light," etc.), there may follow "spectral faces," etc. This sequence would be valuable in diagnosis, because now and then the coloured vision and spectral faces might constitute the sole seizures. The sequence would be strong evidence against migraine, and in favour of epilepsy.

4. *Taste.*—I know nothing of any elaborate psychical state which corresponds to a crude sensation of taste, in the same definite way as spectral faces do to coloured vision, or the so-called "voices" to noise in the ear. In one case there was "the dreamy state" in a patient whose earliest fits began by a "metallic taste."(d)

I have notes of one case in which the patient has a taste at the beginning of his seizure, and then, on going into unconsciousness, masticates and spits out. But this patient has no sort of elaborate psychical state along with or just after the taste, and before loss of consciousness; he acts elaborately after his paroxysm, remembering nothing of his actions. I have notes of a case of slight seizures in a boy, who spoke of them as "sensations of grease"; but I could never get to know what "grease" meant. This boy, in attacks, put different substances into his mouth: at the seaside, sand; at school he drank ink; in the country he bit pieces of butterflies; he smacked his lips in the attacks, and his brother said he had a look of disgust. I infer that there was here a sensation of taste, or at least an excitation of centres for taste. He passes urine in his attacks; after them he sometimes acts "foolishly" and irrelevantly. He has no "dreamy state," nor any other sort of elaborate psychical state, attending the onset of his seizures.

5. *A Crude Sensation of Smell* is sometimes a precursor of epileptic attacks; it is very much commoner than a taste—a rare thing,—and commoner, too, than a noise, but very much less common than colours. In one case so beginning, the patient had the delusion that the smell was external. In another case a patient held his nose when the attack began, from which the inference is that the smell was supposed to be external. Here, again, I know of no mental state which corresponds to smell as directly as spectral faces correspond to coloured vision, unless the "externalisation" of the smell is the analogue of the spectral faces. It must be added that the rule is that the patient feels the smell "in his nose"; probably this is at a stage when he is fully conscious. The sense of smell, rudimentary though it be, is at once one of the most "commonplace" and the most intellectual. A scent or stink makes us sick, and, on the other hand, some scents develope in us very voluminous reminiscences.

A crude sensation of smell in some cases of epilepsy is followed by the voluminous psychical state called "dreamy state," although such voluminous psychical states occur without the crude sensation of smell, and, so far as I know, such states may not follow it.

The relation of the crude sensation to its corresponding elaborate mental state is, I presume, analogous to that of epi- or ento-peripheral sensations to ordinary dreams.

I think it will be found that in many, I dare not say in most cases, the voluminous mental state occurs in patients who have at the onset of their seizures some "digestive" sensation—smell, epigastric sensations, taste, or, in cases where there are movements implying excitation of centres for some such sensations, such movements as those of mastication.

We ought, I think, to say with sensations "subjectively serving." Taste serves subjectively in estimation of the agreeable or disagreeable, objectively in recognition of a quality in an external object. It seems strange at first glance that the *most* elaborate psychical states—the dreamy states—should attend or follow those warnings which refer to the less "intellectual" of the special senses, and to the epigastric sensation. It may be that there are errors of observation on my part: I have, however, no notes of cases in which

(a) Some patients suffering from nervous exhaustion "come over frightened," and associate this emotional state with a disagreeable feeling at the epigastrium. Curiously, some patients so complaining, add that they feel "as if they had done something wrong." These are slight cases of melancholia, although practically they differ vastly in degree from cases of melancholia commonly so-called. A girl, aged eleven, had slight epileptic seizures, which began, she said, by a feeling as if she had "done something very wrong," "as if she were going to be beaten." I have no note about epigastric sensations in her case; she had a feeling as if something were going to choke her. Some healthy but nervous people, when actually frightened, feel "something turn over," etc., at the epigastrium. I have heard this feeling called "blue pain."

(b) In an ordinary case of complete aphasia (loss of all speech except for some recurring utterance and rare occasional utterances) we note not only that the patient cannot use words in speech, having lost nervous arrangements for words by disease of one side of his brain, but also, what is not one whit less important, that he retains a service of words by which he understands what we say to him, and words which serve him in that part of his mentation which needs words (or symbols of some sort); he is speechless, but it is easily demonstrable that he is not wordless. The hearing "voices," or rather speeches or words, I presume, depends on increased excitation of the sensori-motor substrata of words which serve in receiving speech of others.

(c) It calls to one's mind the assertion of some persons that when under laughing-gas they felt the extraction of a tooth but had no pain. I have notes of the case of an epileptic who said his fits were preceded by a "tasteless taste." In some dreams developed by a noise, whilst the noise of necessity acts first, the corresponding noise in the dream comes last.

(d) I would suggest that such movements as those of mastication, of spitting out, and "smacking the lips," imply an excitation of some centres for taste analogous to that excitation of other centres during which "balls of fire," "noises in the ear," etc., arise; similarly, that rubbing the hands implies an excitation of some part of the tactual centres. (These statements will call to the reader's mind the case of a headless frog rubbing an irritated part of its back with a hind leg.) In the cases of epilepsy the supposed physical condition leading to the adapted movement is central; but the reference is to the periphery. An ataxic patient of mine had only one hand, but had numbness not only in that hand, but in the spectral hand. Neither the masticatory nor the hand-rubbing movement can be put down to an *epileptic* discharge; that would produce spasm of the masticatory and hand muscles, "running them up" into a contention in which all movement properly so-called would be absent.

the dreamy state attended a warning of true vertigo. I have not heard of the dreamy state in association with coloured vision or noises in the ear. (I have never heard of it attending the onset of any epileptiform convulsion.) Yet it occurs in some cases wherein there is no crude sensation warning at all, and these may, for aught I know, be cases in which the part of the cerebrum discharged serves during some objective sensation. It may be well to say that I have not arrived at the provisional conclusion that the most elaborate psychical—the dreamy—states attend the more subjective of the sensations by theorising; it is a mere matter of observation, and possibly of very inadequate observation. It is possible that whilst the crude subjective sensation occurring during epileptic discharge of the sensory region of the left cerebral hemisphere, that the dreamy sensations arise during raised activity of the right cerebral hemisphere.

There cannot be any doubt but that the crude warning sensations, sight and hearing, are sometimes followed by intelligibly related elaborate mental states.

The still more elaborate psychical state, the so-called "dreamy states," have not been carefully analysed. Judging from the statements of patients, they are diverse. Some are spoken of as being very elaborate, and yet the particulars are not remembered. There is the feeling of being somewhere else; there is the feeling of having seen things then present as they were seen some former time; occasionally there is a definite vision, one more elaborate than a spectral face. We should consider each kind of dreamy state in relation to its crude sensation warning when there is one; but sometimes there is no such warning, and for the rest I am at present unable to trace any definite relation betwixt particular warning sensations and particular "dreamy states." I have as yet only notes of fourteen cases.

To discriminate betwixt the dreamy states is important for another reason. It is possible that when they are followed by loss of consciousness (or of highest consciousness), and then by actions, some kinship may be discovered betwixt the particular "dreamy state" and what is done after the paroxysm. For example (see page 143), there may be some relation betwixt the woman's dreamy state at the onset of her paroxysm, of being "miles away," and her "running about" when the paroxysm is over. A patient of mine had the "dreamy state" of "being somewhere else," and after his paroxysm he, as his friends put it, "made for the door." Similarly, there may be a relation betwixt the several less elaborate psychical states, the spectral "faces" and "voices" (which in some cases follow corresponding crude sensations and precede the loss of consciousness, or of highest consciousness) and the post-epileptic conduct.

With regard to post-epileptic actions we should carefully note whether the "form" of the conduct is that of fear, the great subjective emotion, or anger, the great objective emotion, or of both; the states are often, if not always, mixed, even in health. Does conduct with fear (trying to escape, etc.) follow those seizures heralded in by an epigastric sensation. What sort of warning, if any, ushers in those seizures which are followed by conduct seemingly guided by anger, by fury, and attack? The warning most antithetical to the epigastric sensation, which is often attended by the emotion fear, is, I suppose, the sensation of vertigo. I suppose the crude "motor sensation" vertigo (see page 86) is a brutal development of that sensation which is most representative in object-consciousness, and that the crude "sensory sensation," the epigastric sensation, is of one most representative in subject-consciousness. Let me state the double hypothesis in greater detail.

The most representative of objective sensations is that "motor sensation" which stands for relations established betwixt the organism and the environment,—as reacting on the environment; in other words, that which estimates relations of external objects one to another. The physical basis of this sensation is ocular movement with central nervous arrangements representing ocular movements. Epileptic vertigo is a crude sensation corresponding to what is normally sense of orientation (vertigo is practically desorientation, as coloured vision is practically blindness, although not darkness), and the physical side of it is an excessive discharge of cerebral nervous arrangements representing ocular movements.

The most representative of subjective sensations will be that "sensory sensation" standing for the relations of tissues as to their state of nutrition. The state of nutrition is the physical basis on which the parts of the organisms are related one to another, as they are affected by the environment. Perfect nutrition or health has a correlative sensation for which there is no name, except perhaps the name of "satisfaction." A quasi-healthy, imperfect, or incomplete nutrition is attended by hunger. I submit the further hypothesis that the epigastric sensation (sensation referred to solar plexus?) is the crude sensation corresponding to the systemic sensation of hunger, or to the state of widespread need of repair of tissues; that it is a feeling occurring during excessive central discharge, equivalent to that given by real widespread ill-nutrition: if so there is nothing remarkable in its being attended by fear, for fear is the emotion of pain—using that term in the wide psychological sense as the reverse of pleasure, and as implying conditions injurious to the organism. Its manifestations show this clearly. Anger is the emotion of combat, as its manifestations show (Spencer, "Psychology"). What kind of warning, if any, mostly precedes loss of consciousness in those paroxysms after which the patient's conduct is seemingly as if guided by anger, I do not know.

It is certainly singular that vertigo and a sensation referred to the epigastric are the two common warnings of epilepsy proper. I would urge that when studying post-epileptic actions, as they are of different kinds and have different degrees of elaborateness, and as they seem to be related to "dreamy" or to any other less elaborate psychical state, ushering in the paroxysm, we should note whether the form of the conduct is that of fear, or anger, or both.

In some cases the actions seem to be, popularly speaking, an unemotional carrying out of a simple dream. Strictly speaking, no intellectual state can be quite free from emotion.

Sometimes the post-epileptic actions are plainly determined by what was done or doing just before the paroxysm set in; sometimes they are a going through some performances highly habitual in the patient. In the first case the very *recent* organisation of the ideas rivals in effect the stronger organisation of the habit, so far as revivability during unconsciousness or subconsciousness goes. So then the post-epileptic actions are certainly not always in relation to the mode of onset of the paroxysm. Thus the methodical study of post-epileptic actions in relation to the early stages of the paroxysm is difficult. We should, I think, see whether or not there may be in some cases intelligible relations betwixt the stages—(1), warning; (2), "dreamy" or less elaborate mental state; (3), actions after loss of consciousness and the emotional form of the conduct.

No doubt there are, strictly speaking, as many varieties of epilepsy proper as there are different warnings of paroxysms. It is to be hoped that, by the kind of investigation above mentioned, we may break up epilepsy proper into natural groups. If one patient's fits always begin by vertigo, and another's always by the epigastric sensation, it follows of necessity that different parts of the nervous system are diseased in the two patients. This is more striking, but not really more certain, when we adduce such different special-sense warnings as noise in the ear and coloured vision. What is especially desirable is a careful notation of the next events after the warning, and above all as to the affection of organic parts, particularly in those cases where the warning is either vertigo or the epigastric sensation.

The investigation of the different kinds of paroxysm of epilepsy proper is a matter of extreme difficulty. We shall, I think, be much helped by a careful preliminary study of the two great emotions—fear and anger. Certainly, those who believe that fright "causes epilepsy" ought to try to be well up in the physical phenomena occurring during this great emotion. So should those also who think fear—or, rather, the physical changes during it—to be an exciting cause of the first fit; for it may be that severe fright has something to do with determining which shall be the lines

(e) We usually say that in failing memory old events (or strictly the most organised) are remembered, and recent (the least organised) are forgotten. This is not without a very obvious qualification: it would be better to say that recent events are *soon* forgotten. In some cases of partial loss of speech, the inferior speech which is left consists in the substitution of a word more organised in, or more automatic to, the patient. But it is not always so; the substitution may, I think, be explained in some cases by the fact that the patient has recently uttered the substituted word. There is indeed barrel-organism, to use a modification of Gairdner's expression for a temporary condition of some aphasics who get out a word in reply to a question and then must utter it in reply to further different questions.

of least resistance to the first and subsequent discharges of the part of the highest centres which has become unstable.

I hope a clear knowledge of the mode of onset, and of the sequence of affection of parts, especially of the organic parts, will facilitate a rational therapeutics. For now we have, as Fraser, Brunton, Ringer, Fothergill, and others, have shown, remedies which have, what for brevity I may call, "an elective affinity" for certain parts, and remedies like atropin and muscarin, which are largely antagonistic in their action. Is there a variety of epilepsy proper in which belladonna is especially useful? Is there one in which its "antagonists" muscarin and pilocarpin are useful? To this question I can give no answer yet; enough is not yet known of the sequence of affection of parts in different varieties of epilepsy proper to enable one to give even a hypothetical answer. Both belladonna and the fungus from which muscarin is taken have been long used in epilepsy.

Note.—In these lectures, some modifications I have recently made in my opinion as to the relations to one another of the several cerebral centres are omitted. I have called the centres of the corpus striatum the lowest cerebral motor centres; Hitzig and Ferrier's centres, the middle; and the parts in front of these, the highest motor centres. But since many fibres from the spinal and higher homologous nuclei gain centres in Hitzig and Ferrier's region direct, passing through without joining the centres in the corpus striatum, the so-called middle centres stand, at least in part, in the same relation to the spinal motor centres as do the centres in the corpus striatum. I may here indicate in outline an hypothesis as to the relations of the several cerebral motor centres—(1.) That the centres in the corpora striata represent more especially the movements concerned in tactual and visual images (ideas). (2.) That the highest of the centres in Ferrier's region represent especially those locomotor movements, such as putting forth the hand, etc., which do not require displacement of the organism as a whole. (3.) That the lower centres in this region represent especially manipulatory movements, such as writing, buttoning, manipulations of trade, etc. (4.) There are movements, organic and animal, concerned during emotional states which will have an exceedingly wide representation in the cerebrum, and probably more directly in the highest centres than any other class of movements. Stating no suppositions on the relations betwixt these several cerebral centres, it is supposed that the highest motor centres represent or re-represent all four classes of movements in intricate combinations.

A Case for the Medical Defence Association.—An inquiry took place last week, before Dr. Hardwicke, concerning the death of a boy aged eight years, who died from inflammation of the lungs and dropsy, following an attack of scarlet fever. It appears that when the child, the son of a greengrocer residing in Barnsburry, was taken ill, the mother went to the shop of Mr. Draper, a chemist, in the Barnsbury-road, who prescribed a mixture, which was repeated several times. When symptoms of dropsy set in, the chemist visited the child at home, charging a fee of eighteenpence. The mother stated that she was under the impression that Mr. Draper was a duly qualified medical man, as she saw painted on his door, "Dr. Parrott, Surgeon and Accoucheur." Two or three days before the child died the parents were told that Mr. Draper was unqualified, and Mr. George Brown, of Colebrooke-row, was sent for, who, on the death of the child, refused to give the usual certificate. At the inquest, Mr. Draper, in reply to questions put by Mr. Pridham, solicitor to the Medical Defence Association, stated that he attended medical cases in the capacity of assistant to Dr. Parrott, of Camberwell, who permitted him to use his name on his door. The jury, in returning a verdict that death resulted from natural causes, strongly censured the conduct of Mr. Draper in attending such a case. This is said to be the second inquest within a few weeks in which Mr. Draper has been concerned. It seems to us that, if the statement said to have been made by the mother of the child is correct, some explanation is called for from Dr. Parrott. If a gentleman stretches his grasp for practice from Camberwell to Barnsbury, his assistant in the latter locality ought at any rate to be a qualified man. It 's a far cry from Barnsbury to Camberwell in case of serious illness.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

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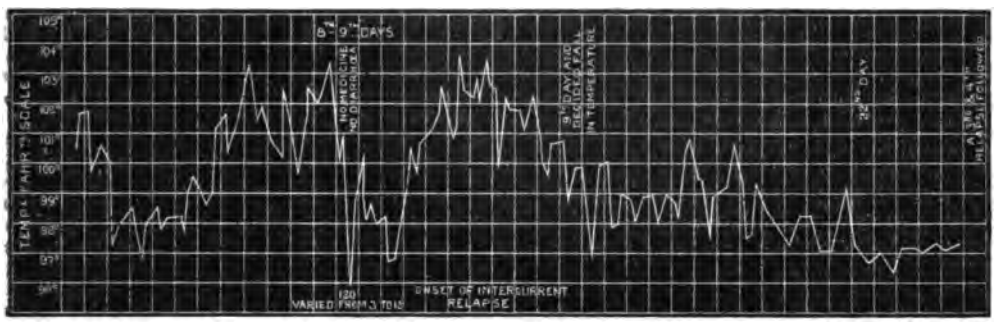
(*Continued from page* 173.)

The first of the examples given below is one of Intercurrent Relapse. Allusion has already been made to this term, by which we understand relapse which sets in during the progress of primary attacks or of relapses, and, while interrupting these, itself runs a more or less definite and typical course. Such occurrences seem alone sufficient to explain the remarkable variations in temperature met with in the following case.

Case 10.—A male, aged eighteen, was admitted into the hospital at the end of the fourth week of primary typhoid. On the evening of admission his temperature was nearly 102° Fahr., but it fell rapidly, and on the fourth morning was subnormal (96·8° Fahr.). This was satisfactory enough, but such temperature was ephemeral, for almost at once a relapse began. During the primary disease the bowels, as a rule, had been constipated, and this was the case also during the relapses. Reference to the chart will show the suddenness with which the first relapse set in. From 98·6° Fahr. on the day after the subnormal level mentioned, the temperature ran up with slight remissions to 103·4° Fahr. on the fifth morning, so that in little more than five days the rise was all but seven degrees. On the fifth and sixth days of relapse the fever was irregular. On the seventh morning the temperature was only 99·8° Fahr., but it at once ascended, and on the eighth evening was 103·5° Fahr. From this date a remarkable fall occurred—to 95·8° Fahr. on the afternoon of the ninth day. Thus in eighteen hours the fever abated *nearly eight degrees*, and this though there was no diarrhœa, and no medicines (except stimulants) were being administered. The pulse averaged about 120, and the respirations were during this fall remarkably infrequent. The general condition was very bad, and hæmorrhage, which did not evidence itself in the evacuations, was suspected. The extremely low temperature (95·8° Fahr.) was reached at 2 p.m. of the ninth day, and an immediate rise followed, and reached 100·4° Fahr. on the morning of the tenth day, but on the eleventh morning the temperature was only 96·8° Fahr. At this stage began what I have ventured to think was intercurrent relapse, in which the fever followed a remarkably typical course. From 96·8° Fahr. the temperature ascended to 102·5° Fahr. on the third day, and to 103·6° Fahr. on the fifth day of the second or concurrent relapse. Thenceforward it tended to fall, the fall culminating on the tenth morning, when it was scarcely 97° Fahr. As in almost all the relapses hitherto recorded, another rise set in, and the fever was continued to the twenty-second day, though on only two occasions was the height reached above 100° Fahr. The intercurrent attack lasted, therefore, about twenty-one days. No treatment was employed likely to modify the fever, nor did any complication or accident affect it. It is most instructive to compare the first relapse and the intercurrent or second relapse in this case; the temperature-curves for the first ten days have a remarkable similarity, and this in itself justifies to a certain extent the opinion that the first relapse was interrupted (amongst other things, perhaps) by the onset of a concurrent relapse. But a small experience of such cases teaches caution in one's assertions and opinions, and I feel bound to suggest, rather than to assert, more especially as I cannot quote definite facts and opinions of other observers. But one cannot doubt that on the eleventh day of the first relapse a typical second relapse set in; and were the portion of the chart which records the fever of this relapse cut off and considered separately, we might with confidence say that we had before us a chart of relapse of typhoid fever. This case did not end with the second relapse, for the latter, after a six days' apyrexial interval, was followed by a new fever, which lasted fifteen days. This fever was always moderate, but its tenor certainly indicated a third relapse. It ended with subnormal

temperature, which lasted seven days, and then, without any apparent cause, a new fever came on, and lasted twenty-one days. Unfortunately, the temperature, being but slightly febrile, was taken only twice a day; yet with the whole chart before us we could not hesitate to declare that a fourth relapse had occurred. What but relapse could have caused a febrile attack of twenty-one days' duration, and of a regular character? Certainly not recrudescence; and as certainly no complication—in fact, there was no complication. Had the thermometer not been used day by day, and comparisons drawn, all the conclusion possible would have been that convalescence, for some vague reason, was "retarded." As it is difficult to include in general remarks special considerations of individual cases, I have ventured here (and elsewhere) to dwell upon some of them. Here was an instance in which four relapses occurred; without the thermometer they could not have been determined, and I do not think the case by any means exceptional. (I regret that the charts of the latter relapses have not been engraved.)



CASE 10: RELAPSE OF TYPHOID WITH INTERCURRENT RELAPSE; FOUR RELAPSES MET WITH (a male, aged eighteen).—The temperature during the days given in the chart was taken every four hours, and each day's record begins with the height reached at 4 a.m., and ends with 8 p.m. level. Various intervening heights are alluded to in the text. In the *first relapse* temperature reached its height on the fifth day; it was irregular afterwards. On the eighth evening the temperature was 103·4° Fahr.; on the ninth day, at 2 p.m., only 96·6° Fahr. On the eleventh day *intercurrent relapse* began, ran a course very like simple relapse, and lasted twenty-one days. A third relapse (lasting fifteen days) and a fourth (lasting twenty-one days) succeeded, with distinct subnormal intervals. The patient then convalesced rapidly after a disease lasting sixteen weeks. (*Vide* text.)

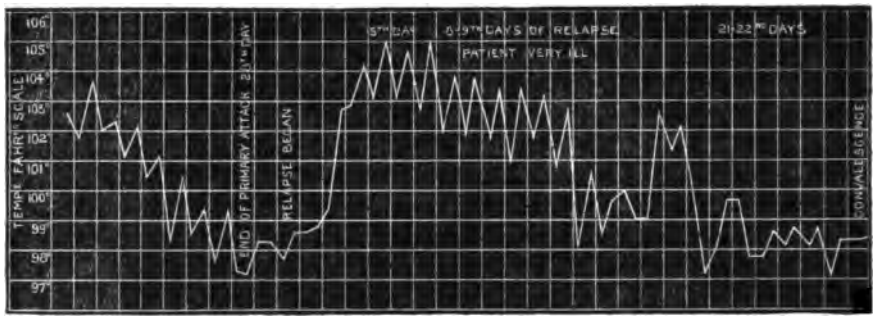
Case 11 (a male, aged twelve) was a typical example of relapse, and I do not think it necessary to reproduce the chart. The primary attack lasted a month, and relapse occurred five days after its termination. In this relapse, which was mild, the temperature reached its height (with little remissions) on the fifth day from subnormal or the first day of relapse. A perceptible daily fall then began, but not till the ninth day was the fall decided. Then followed an exacerbation or new febrile stage, which ended on the twenty-first day, and had the same characters as the first case with which I commenced these papers. Diarrhœa was never marked, and sometimes constipation required careful doses of castor oil. The patient recovered.

Case 12.—A female, aged twenty, passed through relapse of typhoid, simple in kind, and not needing much description. She was under my care in the absence of Dr. Green. Relapse set in five days after the ending of the primary attack, and passed through stages almost identical with those of the first case quoted. The relapse lasted twenty-one days. The highest temperature was reached on the fifth day, and there was a critical fall on the eighth-ninth days. A rise followed as in other cases of regular course; and the disease, in fact, was so normal that I do not think it necessary to reproduce the chart.

Case 13.—A male, aged twenty-three, was admitted into Charing-cross Hospital in July, 1878, under the care of Dr. Silver. He was suffering from a primary attack of typhoid fever, which ended favourably after about twenty-eight days' duration. But relapse occurred, and through it the patient was under my care in the absence of my colleague. For two days after the end of the original attack the temperature averaged 97 6' Fahr. Relapse then began, and it rose rapidly to 102·6' Fahr. on the third evening, and to 105° Fahr. at 9 p.m. of the fifth day. On the sixth and seventh evenings almost equal levels were reached—in fact, on the latter evening a temperature exceeding 105° Fahr. was noted. The patient was very dangerously ill from the fifth to the seventh day. He had constant tremor and restlessness, low delirium, picking of the bedclothes, subsultus tendinum, and a hard dry tongue, with sordes on it and on the teeth. He had, moreover, the sallow complexion of blood-poisoning. Thus a temperature reaching a fifth-day level on the two following days was attended by the gravest symptoms, which day and night provoked much anxiety. The patient was assiduously watched by Mr. Wickers, House-Physician at the time, and owed his life to a judicious administration of stimulants. On the eighth morning there was a more considerable remission of fever than any previously met with, and, in spite of the violent general symptoms, this was looked upon as of favourable omen. From the seventh to the thirteenth day the temperature went down but slowly; thus, on the eighth evening it was 103·8° Fahr., and on the thirteenth 102·8° Fahr. The fall, though small, was day by day steady, and so far favourable; but not until the thirteenth-fourteenth days came the *decided* fall, which we daily had been looking for. Up to the thirteenth day the bad symptoms mentioned prevailed, and *coma-vigil* at times was added to these. There was also either incontinence or retention of urine, and frequently the motions were passed unconsciously; but usually there was constipation rather than diarrhœa. The pulse was almost always "trickling" in character, and as high as 150, and the vital powers gave little hope of ultimate recovery. But the temperature was not wholly unfavourable, and on the thirteenth evening came the delayed fall. From 102·8° Fahr. at 9 p.m. the temperature fell rapidly to 98·2° Fahr. (four degrees and a half) at nine o'clock of the fourteenth morning. It rose again, but moderately only; though on the seventeenth day there was an exacerbation to 102·6° Fahr., and a return of bad symptoms. An immediate fall succeeded, and the relapse, as well as the whole disease, ended with subnormal temperature on the twenty-first day of the relapse. After the fall on the fourteenth morning the patient was constantly drowsy, and his restlessness ended in sleep, from which he awoke convalescent.

This case was of interest in many ways. Opium was given in large quantities to check a dangerous and prostrating restlessness, but did not succeed. It did no harm, however. Chloroform was then inhaled until drowsiness was produced and muscular excitement diminished. The results were excellent. The patient enjoyed a continuous sleep of some hours' duration, and awoke evidently refreshed. The chloroform was given by Mr. Wickers during one of the worst nights the patient had, and it was afterwards repeated with success, and, by securing rest, was one means of the patient's recovery. Chloroform inhalations were ventured upon because there was little bronchial catarrh. (For chart of this case see next page.)

Case 14.—A male, aged eighteen, was admitted into Charing-cross Hospital while suffering from typhoid fever, which appeared to terminate on the thirtieth day of the disease. But relapse followed almost immediately, and in it the temperature reached its height on the fifth day, from which time there were slight daily remissions to the eighth day, when a marked fall occurred, and continued to the eleventh morning (98° Fahr.). The temperature again rose,



CASE 13: RELAPSE OF TYPHOID FEVER (a male, aged twenty-three).—Primary attack lasted a month, and was followed by two days' apyrexia. Relapse then began; from 97·6° Fahr. temperature ran up to 105° Fahr. on the fifth day. Patient was dangerously ill. Temperature then fell slightly, but on the eighth-ninth days there was a somewhat more marked fall. Not, however, till the thirteenth day was there a decided fall (from 102·6° Fahr. to 99° Fahr. on the fourteenth morning). Relapse lasted twenty-two days. Case shows that irregularities of temperature are as indicative of danger as hyperpyrexia. (*Vide* text.)

but never to previous levels, and did not become normal until the twenty-first day of the relapse. The temperature was then subnormal (usually 97° Fahr.) for five days, when there began another febrile attack which lasted twenty days. This attack was very mild, for the temperature never exceeded 101·4° Fahr. on the fifth day, and, though it was certainly relapse, would have been passed by had the thermometer been neglected. Even occasional observations of the temperature would have been of little avail; but a regular daily chart showed a disease very similar in its course and stages to those previously described, but differing in its extreme mildness and slightness of fever. The case is of value in this respect: it proves the obscurity of true relapse in some instances, and the necessity of caution in the dietary of patients in whom the least fever lingers after an attack of typhoid. Had the patient been left to himself he would have worked and "walked" probably through the greater part of the second relapse. (The chart of this case is not engraved.)

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

SEAMEN'S HOSPITAL ("DREADNOUGHT"), GREENWICH.

GENERAL NOTES OF FOUR CASES OF SCURVY. (a)

(Under the care of Mr. HARRY LEECH.)

Case 1.—Henry H., native of Liverpool, aged forty-one, joined the sailing ship *Redgauntlet* at Calcutta, and made with her a voyage to Mauritius. She lay five weeks in dock at Mauritius, after which she came back to Calcutta, where she spent five weeks in harbour and then sailed for London. During the voyage to and from Mauritius, H. H.'s health was excellent. The voyage home lasted 154 days, St. Helena being the only place where the *Redgauntlet* put in, and this for six hours only. Ten days after leaving Calcutta the distribution of lime-juice began, one bottle, containing about a pint and a half, being the weekly allowance for seven men. H. H., until the time his sickness began, did not take lime-juice more than twelve times: sometimes he did not care for it; sometimes the bottle was empty and he could not get any. One or two days after leaving St. Helena, H. H. fell ill with scurvy. This caused the lime-juice to be daily supplied to the men at dinner-time, about half a pint of a mixture of water, lime-juice, and sugar being then the daily share for each man. From that moment H. H. took the lime-juice regularly. This was strong and had a pleasant flavour. Of the fourteen men who were before the mast, only two were laid up with scurvy; one died of dropsy about three weeks before the ship arrived in London. However, several men complained that their mouths and knees were sore, but they did not go to the captain for treatment. The berths of the crew were in the top forecastle; they were very bad—cold and wet. During the whole of the journey the crew's diet was, alternately, salt beef and salt pork, both being of good quality; preserved (not salt) meat was allowed on Sundays. The bread and biscuit were good; the clothing and bedding were good. With the exception of the first three days after leaving Calcutta, and of the day they left St. Helena, no vegetables were distributed. During the whole period of the voyage, three bottles, each containing a pint and a half of vinegar, were given to the crew. H. H. has not had any previous illness except scurvy, which he had slightly during a week in 1861. On December 8, 1878, the *Redgauntlet* entered into the port of London, and H. H. was admitted into the Seamen's Hospital.

Case 2.—Martin H., a native of Hamburg, aged twenty-four; no previous attack of scurvy or any other illness, except measles in childhood. M. H. joined the *Redgauntlet* in Calcutta. The journey home lasted 154 days. St. Helena was the only place where they put in, and that only for six hours. Three weeks before arriving in London a sailor died of dropsy. M. H. was taken ill with scurvy eight days after leaving St. Helena. Besides H. H. and M. H., another man, who complained of sore mouth and weakness, applied to the captain, who gave him the same medicine as that given to M. H. Another sailor complained of a black place on his leg. Ten days after leaving Calcutta the lime-juice distribution began. A bottle containing a pint and a half was weekly given for seven men. But when, on November 5, H. H. became sick, a mixture of lime-juice, sugar, and water was daily (at dinner-time) supplied in two jugs containing each three pints, being the ration for fourteen men. Until the moment he became sick M. H. did not take lime-juice; but from the beginning of his illness he took it regularly. The lime-juice was strong and pleasant; but while it was weekly given out, the bottle often was empty long before the return of the distribution day, and the men had to do without it. During the whole of the journey salt beef and salt pork, alternately, were the crew's diet. Both pork and beef were good. On Sundays, preserved (not salt) meat was given out. Biscuit and bread good. Pumpkins, soup during three weeks, and potatoes during a week after leaving Calcutta. Cabbage once at dinner after leaving St. Helena. The drinking-water was very bad, being that of the Calcutta river, and during the journey the supply consisted of rain-water poured over the remainder of the Calcutta water. No vinegar was given out before the apparition of scurvy. On December 8 the *Redgauntlet* entered into the East India Dock; but M. H. was not sent to the hospital until December 9, 1878. The berths on board the *Redgauntlet* were very damp; the floor could not be kept dry. The crew slept in the top forecastle. The bedding and clothing were good.

Case 3.—Alex. A., a Swede, aged twenty-two, admitted into the Seamen's Hospital on December 9, 1878, joined at Sunderland the barque *Eagle*, bound for India (? Coconara). A. A., who never had any previous illness or attack of scurvy, was quite well during the voyage to India. The *Eagle* remained during two months in India. On coming home the journey lasted 125 or 126 days. They lay off St. Helena during one night, in order to get provisions. Four weeks before arriving in London, A. A. was taken with scurvy. He was the first man who fell sick. But, of the ten men who were before the mast, four besides A. A. complained of sore mouth, and one of these applied to the captain for medicine. The berths lay on the top forecastle. They were dry and good, but the ship was wet. The bedding and clothing were good. About a week after leaving (? Coconara), half a pint of lime-juice, water, and sugar mixture was daily given to each man at dinner-time. A. A. always drank his ration

(a) The Board of Trade prosecuted the captain of the ship in which the first two patients sailed, and obtained a conviction under the Merchant Shipping Act of 1867. Since this Act was in force, scurvy has diminished n the merchant navy cent. per cent.

of lime-juice, which was very sweet, but not strong. Every man, to A. A.'s knowledge, drank the lime-juice. Alternately, salt beef and salt pork during the whole journey. Both beef and pork good. On Sundays, preserved (not salt) meat. Bread and biscuit good. For a couple of days after leaving Cocoanara and St. Helena, pumpkin and cabbage; no potatoes; no vinegar; no molasses. On December 9 the barque *Eagle* entered into the St. Katharine Docks.

Case 4.—A. H., a Norwegian, aged forty-two, joined in London the *City of Nimpu*, going to Calcutta. A. H. was all-right during the journey to India. After a sojourn of six weeks in Calcutta, they sailed for London, where they arrived after an uninterrupted journey of five months and two days. A. H. got scurvy about fifty days before arriving in London. Another man was sick nearly all the journey, but probably not with scurvy. Another one had his gums rather sore, and went to the captain for treatment. There were fifteen men before the mast. The berths lay in the top forecastle; they were wet in bad weather, so was the ship. Clothing and bedding good. The lime-juice distribution began ten days after leaving Calcutta. Every day, at dinner-time, each man received a quarter of a pint of mixture of lime-juice, sugar, and water. This drink was pretty strong and pleasant. During the whole length of the journey A. H. did not fail more than three or four days to take it. From the beginning of the journey salt diet, being alternately beef and pork, both good. On Saturdays, preserved (not salt) meat. Biscuit good, except during the last three months and a half, when it got maggot-eaten; bread good; water good; vinegar *ad libitum*, but A. H. did not take any. Pumpkin soup during the first two months; no cabbage; potatoes on the four or five first Saturdays; salt butter good. A. H. never had scurvy before. He had in 1862 ague during five weeks, and in 1865 dysentery during ten weeks. No other previous illness.

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Medical Times and Gazette.

SATURDAY, MARCH 1, 1879.

THE MEDICAL ACTS AMENDMENT BILL.

The Government Bill to amend the Medical Acts was introduced into the House of Lords on Tuesday last by the Duke of Richmond and Gordon, and read for the first time. From his speech it appears that, as was to be expected, the Bill now introduced is, with one exception, to all intents and purposes, the Government Medical Acts Amendment Bill of last year, in its last state. The dental section of that measure has, of course, been withdrawn, but, so far as the medical profession is concerned, the measure is almost the same. The formation of a Conjoint Examining Board in each of the three divisions of the kingdom is made compulsory; and the provisions with regard to registration of foreign and colonial degrees, to the penalties to be imposed on unqualified practitioners, and other kindred matters, remain practically the same as those in the former Bill. But the Marquis of Ripon's clause, making the qualifying certificate of a Conjoint Board the one absolute and indispensable condition of admittance to the Medical Register, has been altered. The Duke stated it had been very strongly represented to him that all the young men who enter the profession should be subject to that moral influence which their being made members of the various medical corporations secures; and that therefore they ought not to be registered as qualified to practise until they had been affiliated to those corporations. He himself was inclined to prefer the simplicity of the plan of giving admission to the Register by the qualifying certificate of a Conjoint Board; but as he found that the medical profession thought that state of things would not conduce to the maintenance of the status of medical men, he felt constrained to give way. Accordingly it is proposed by the present Bill to enact that a person who has obtained the certificate of a Conjoint Board shall be entitled to ask for the diploma of any of the medical corporations (co-operating in the formation of that Board, of course), and on obtaining such diploma shall be entitled to registration. Should such diploma, or diplomas, be refused, then—and then only—a person may be admitted to the Register on the certificate of a Conjoint Board alone. This provision is, of course, meant to meet the woman difficulty, as the Conjoint Boards will be obliged to admit women-candidates to examination. There exists, however, another woman difficulty to which the Duke did not refer, namely, the question of absolute sameness of examination; and on this point it will, judging by past experience, be extremely difficult to satisfy the medical profession, the medical-woman party, and the medical women.

The character of the Bill and of its provisions—the midwifery section is retained, be it remarked—are thus before us, and are in character what we expected; but all criticism of the measure in detail must be reserved till the Bill has been printed. A large part of the Duke of Richmond's speech referred to the question of the constitution of the General Medical Council. He vindicated, very unnecessarily, the selection of the Crown nominees; he pointed to the eminence in the profession of the representative members; and he declared his conviction that all these gentlemen have admirably discharged the duties imposed upon them, and have deserved well of the country. But he admitted that a large number of the members of the profession desired that the Council should be very much altered in its character; and he felt that the views he entertains on the subject of its constitution would not at all meet their wishes. He had been made aware of certain schemes for the amendment of the Council which had been put forward by various gentlemen and various associations. By one scheme the number of the Council would be increased, but he thought that for all practical purposes the Council is quite large enough. Another would diminish the number of the representatives sent by the medical authorities; and a third would reduce the number of the Crown nominees. All these proposals seemed to him to involve questions not unworthy of consideration, but they were very wide questions, and much more information than the Government at present possessed

was necessary before coming to any determination on the points in dispute. Her Majesty's Government intend, therefore, to suggest that a Select Committee—of the lower House, or of both Houses—shall be appointed to inquire into the matter; and when that Committee has reported, Government will be able to see whether any, and, if any, what alteration may be desirable in the constitution of the Council. Meanwhile he could not see any reason why the progress of the Medical Acts Amendment Bill should be arrested, as the question of the revision of the constitution of the Council had nothing whatever to do with the very valuable reforms which he believed to be contained in the Bill.

The Marquis of Ripon approved of the Bill as described by the Duke of Richmond and Gordon, and promised to give whatever assistance he could in passing it. He was ready for that object to lay aside his own opinions on minor points in the measure, and he trusted others would do the same. He thought also that it was wise to submit the question of the constitution of the Medical Council to impartial investigation by a Parliamentary Committee; and he trusted that that question would not be permitted during the present session to interfere with the passing of the Bill, which he believed to be a most excellent measure.

So far, then, all promises well for the success of the Government proposals; and it seems more than probable that we shall this year have a new Medical Act, and a settlement of the question as to the constitution of the Medical Council; and some comfort may be derived therefrom. We are not of the number of those who believe that the establishment of a Conjoint Examining Board for each division of the kingdom will, even if coupled with "direct representation" of the profession in the Medical Council, bring about a sort of medical millennium of happiness and perfection; but we may hope, at any rate, the result will be a many-years' rest from agitation and incessant threatenings of change. New panaceas for all the shortcomings of medical students and medical men will, no doubt, in such case ere long be invented and suggested; but some period of rest will be granted for a trial of the reforms introduced—of the new Medical Act and the new Medical Council,—and that will be no small gain.

NUNN *v.* HEMMING.

There was tried last week, before the Lord Chief Baron and a special jury, one of those cases which have from time to time arisen, and which we suppose will from time to time arise, to plague those more especially concerned in that branch of our profession which deals specially with insanity. The plaintiff was a gentleman of independent fortune, and the defendant a member of our profession who had been superintendent and part proprietor of a private asylum at Hammersmith. As to the insanity of Mr. Nunn when under restraint there could not be a shadow of doubt. His condition before being sent to any asylum was proved on indubitable evidence to be that of unsound mind, with a strong suicidal tendency. Among other things, he swallowed his gold shirt-studs, and jumped out of window in his nightgear. His whole family were kept in a state of terror at his ongoings, and at last were reluctantly compelled to send him away. He seems to have been an inmate of more than one private asylum, but to have had a knack of escaping when he got tired of the restraint; and it would appear that, having escaped from any one asylum, he was never sent back. Finally, having made a last escape, he lay *perdu* until he could be no longer recaptured, since which time no one seems to have interfered with him. As soon as opportunity offered he proceeded to bring this action. It, too, seems to have arisen from an attempted escape from the grounds of the asylum in which he was confined. He walked off, but was brought back by the gardener; when, as he alleges, to punish him for this attempted evasion, he was put in a bath, his head thrust again and again under water, and subsequently confined in a padded room. He also alleged that chlorodyne was given to him with the view of exciting him and causing him to appear really worse than he was. This was the ill-usage complained of, whilst the defence was that the whole was an insane delusion. It seems that at the asylum in question there were two sets of buildings, in one of which (called the Cottage) the more violent lunatics were confined, and where, as Mr. Nunn alleged, he was ill-used. It was not denied that the story of the patient was, up to a certain point, correct; the point of divergence was as to what took place when he was brought back by the gardener. He affirmed, as we have seen, that he was taken away to the Cottage, and there ill-treated; whilst for the defence it was contended that nothing of the kind took place. The only whit of evidence which could be adduced in the plaintiff's favour was that he was seen by the gardener being taken away in the direction of the Cottage, though even this was denied on the part of the defence. It is not often, even in such cases, that such an array of witnesses can be brought forward to prove a plaintiff's mental condition both before and after an alleged assault. Suffice it to say that it speedily carried such conviction to the mind of the Lord Chief Baron, that at a comparatively early period he would have stopped the case, but for some unaccountable reason the jury insisted on its going on for two days longer, with a view, as was affirmed, of hearing what the counsel for the plaintiff (Serjeant Parry) would have to say in putting the case to them. That the Serjeant's eloquence was not, however, all-powerful with them was indicated by their finding for the defendant without leaving the jury-box.

The case carries its own teaching on the face of it. This is not the first instance by many in which those engaged, directly or indirectly, in the treatment of lunacy have burnt their fingers. Such cases are undoubtedly most common in connexion with this branch of our profession, but all of us are more or less subject to similar annoyances. For though, as in this case, a verdict may be given for the defendant, this can never indemnify him for the wear and tear, the mental anxiety, and worry inseparable from such legal proceedings. Furthermore, there must in all such cases be a direct money loss, for, though the verdict carries costs, these are only the taxed costs, beyond which there is usually a good broad margin as between solicitor and client. Dr. Hemming may nevertheless consider himself a lucky man in having been able, in a manner so satisfactory both to the court and the jury, to have proved himself guiltless of the offence laid to his charge.

CLASSES FOR MEDICAL MEN.

Before this subject, with regard to which at least one medical man has sought to rouse the profession by his letters to this journal, has again lapsed into obscurity, it may not be inopportune to discuss it a little more fully than we have as yet done; and to show that the difficulties attending the introduction of "practitioners' classes," such as those lately inaugurated with success at Berlin, into England are by no means as great as they may seem to be at first sight. The idea of holding classes for men of some standing in the profession had long been mooted in Germany, but want of organisation had always, until the winter of 1876, prevented its fulfilment. Fortunately, at this time, an energetic member of the Berlin Medical Club, Dr. Rosenberg, took the matter up, and induced the Club to appoint a committee of five members, whose duty should be to obtain

the adhesion of a staff of competent teachers (about which, in a large university like Berlin, there was very little difficulty), to arrange the time, place, and subjects of the lectures, and the fees to be charged, and, lastly, to advertise the proposed classes and to afford all information to intending students. All this was carried out. The names of the professors and teachers of eminence who undertook to lecture—Virchow, v. Langenbeck, Oscar Liebreich, Schroeder, among the rest—were in themselves sufficiently attractive, but the style and scope of the classes were also of a kind which any man who did not believe in his own absolute perfection, and who had some misgivings as to the extent of his knowledge of recent medical progress, would approve of.

The programme was as follows:—The courses were to embrace all branches of medicine and surgery; they were to be of a practical character, great stress being laid on naked-eye and microscopical demonstrations, on the exhibition of patients, of the various mechanical diagnostic methods, as well as of physico-chemical experiments, and surgical operations before the class. Their duration was in no case to exceed six weeks, with five or six lectures of an hour each per week on each subject. The number of hearers was to be limited in each class to ten, or at the most to twelve, so that everyone might see and hear without hindrance, and take part in all practical manipulations without the inconvenience which attends a crowd. Lastly, the arrangement of these classes was to be so compact that a six weeks' residence in Berlin should be sufficient for a diligent man to attend half a dozen of those series of lectures the subjects of which he felt that he knew least about, while at the same time he should be able to have gained a fairly exhaustive acquaintance with the modern aspect of each subject. It is unnecessary here to do more than re-state the fact of the complete success of this scheme (see *Medical Times and Gazette*, January 4, 1879, page 14); our remaining space will be better devoted to trying to show that it may be imitated in this country.

It is clear, as Dr. Dale puts it in his letter of February 8, that any classes for medical men in "practical England" must be "thoroughly practical, either to prepare men now in practice for a higher grade in their profession, or to bring them level with the ever-increasing scientific and practical knowledge of the day, without their having any more special object in view." A medical man of ten or twenty years' standing is not like a student "grinding" for an examination. He has seen the living, everyday side of his profession, and found out for himself what parts of it he is weakest in, and he also knows by reading that there are innumerable practical improvements in every branch of medicine, which can only be properly learnt by working with a teacher. It is unnecessary to illustrate this statement by instances, for a moment's reflection, we are sure, will furnish abundance to any one of our readers. Six weeks would be well spent in learning the minutiæ of antiseptic surgery, and watching cases treated by the antiseptic method.

And who is to teach? For we cannot doubt that a managing committee of active men, skilled in organising, can be got together in London as go-betweens the learners and the teachers.

The example of some of the London hospitals, at which short annual courses of lectures for practitioners are given with more or less regularity, is a sufficient proof that teachers are to be found, and we are confident that on every hospital staff in London there are at least three or four men who, on the condition of sufficient remuneration, would lecture on the recent developments of their particular subject according to the conditions of the Berlin scheme. This is a matter which should not be in the hands of any one hospital staff, though if one of the larger hospitals chose to set the thing going, it would be far better than for it to remain altogether in abeyance. The Medical Teachers' Association of the metropolis, which would represent all the medical schools but for the undignified jealousy of one or two great institutions, might well take the initiative in this matter, and arrange among its members for a supply of teachers in every practical subject. If it were not for the evil custom, so prevalent in London just now, for some of the best and most active of the young and rising men to be attached to two, or even three, hospitals, so as to wear out their lives in unhealthy drudgery, the supply of good teachers for the present purpose would be an absolute certainty. For, were it not for the fact that not only out-patient drudgery, but literary drudgery, exhausts and undermines the health of the future leaders of the profession, and leaves them scarcely any leisure either for original research or for the cultivation of the gentler arts, no city could provide a better staff of competent instructors than London. To our mind the greatest difficulty of an undertaking of this sort will be to hold the classes for practitioners at the only time when, for many reasons, they can conveniently be held, namely, in the autumn vacation, during August and September. It is then that the hard-worked physician or surgeon sheds the frock-coat of professional dignity, and seeks "fresh fields and pastures new." In those six weeks he has to oxygenate himself for the ensuing year. On the other hand, in the country at large there is generally little sickness at that season, and the country doctor can then be best spared. The students are away from the medical schools; the wards are free from mocking juniors; the lecture-rooms have no occupant but spiders and dust. If, therefore, by mutual arrangement teachers and "students" can only make good use of this time, the mere details of the classes themselves can be settled with the utmost ease. The one point which must be steadily kept in view is, that within the period of six weeks the country doctors who present themselves to undergo the "furbishing" process must have the maximum of practical knowledge presented to them in the most assimilable form. The admirable courses of this length which are given at Vienna and Berlin may be taken as models of the kind of thing, and we know of enough London medical men who have personal acquaintance with the latter to believe that it would be easy to imitate them here. Some persons are sceptical as to the reception which such a scheme would meet with from the practitioners for whom it was organised, and they ask like Hotspur, "Will they come when you do call for them?" We can only say, writing as we do solely with a view to the higher development of the profession at large, that the aspirations of our brethren are at a sadly low level if they refuse to avail themselves of opportunities which will benefit not only themselves, but the public whom they serve.

THE WEEK.

TOPICS OF THE DAY.

SEVERAL of our readers will be glad to learn that the Home Hospitals Association, for paying patients, has at length "a local habitation" as well as a name. The Committee have succeeded in purchasing from Lord Portman a long lease of Berkeley House, Manchester-square (once the residence of Colonel Maberley), and the first annual meeting of the governors and members of the Association took place there last week. The chair was taken by the Duke of Northumberland, who, in a few opening remarks, drew attention to the objects and development of the movement, and said that the Hospital would probably be ready for the reception of

patients in about a month's time. The Committee have met with much opposition from inhabitants in the neighbourhood, but seeing that it is intended strictly to exclude all cases of infectious and contagious diseases, and that nothing will be done to interfere with the comfort of other householders, they, being advised by eminent counsel that they are legally right, have determined to lose no time in getting everything into working order; and his Grace therefore hoped that they had now succeeded in establishing their first hospital for that class of the community who could afford to pay, but who, up to the present time, had been unable to secure the combined advantages of quiet, medical care, skilled nursing, and the thoroughly scientific sanitary arrangements of a public hospital. The first report of the Association was read by the Secretary, and, in the absence of Mr. Walter, M.P., its adoption was proposed by Sir Rutherford Alcock, who referred to the misery and extortion endured by well-to-do sick persons who were obliged to find homes in hotels and lodgings in London. He dwelt upon the value this institution would prove to those who came up to town to consult eminent practitioners. The report was seconded and adopted unanimously, and after the election of officers the visitors were taken over the building by the architect, Mr. Ernest Turner, who explained the different alterations to be carried out for adapting the mansion to its new requirements.

A deputation from a committee of the British Medical Association recently waited upon the Board of Governors of the London Hospital, to ask for their assistance in an attempt to introduce a reform in respect to the known abuse of the present out-patient system of the different London hospitals. Mr. Timothy Holmes, in introducing the deputation, explained the reasons for the movement, and showed that, whereas previously the poor had only the hospitals to look to for relief, now, under the Metropolis Poor-law Amendment Act of 1867, the guardians were enabled by the dispensary system to afford medical relief, and supply medical comforts and food. There was also the provident dispensary system, by which for merely nominal payments the sick poor could insure medical attendance and medicine; and he urged that the governors should limit the number of out-patients to such a number only as could be seen by the assistant-physicians and surgeons themselves, and the cases used for the instruction of pupils. In reply the chairman assured the deputation that the governors of the London Hospital were anxious to encourage provident habits, and in respect to the provident dispensaries, if they were brought into that neighbourhood the governors would afford them all the practical help in their power. At the London Hospital there were only 18,600 out-patients, no more than could be seen by the medical men themselves. Sir E. H. Currie also informed the deputation that there was no abuse of the out-patient system at the London Hospital; every patient saw the medical man whose name was at the back of his card. At the West-end a large class of patients would be gentlemen's servants who might be otherwise provided for, but at the East-end a great number of the cases were casualties, accidents and injuries to persons frequently occurring at the great factories. The deputation thanked the Board of Governors for their explanations and retired.

It is stated in Berlin that telegraphic intelligence from an authentic source gives a favourable account of the state of the Plague in Astrachan, and of the measures which have been taken for stamping it out, and declares that all newspaper statements to the contrary are without foundation. The conviction is, moreover, expressed that after the expiration of ten days the northern portion of the Government of Astrachan may be quite safely freed from quarantine, as an interval of forty-two days will then have passed without any cases of sickness having occurred. Meanwhile the authorities here are determined to insure the establishment of precautionary measures of every kind; and last week a circular was issued by the Local Government Board addressed to the Port Sanitary Authority, recapitulating the great importance of providing means of isolation and disinfection in all cases of infectious disease, and requesting to be informed, as early as practicable, what arrangements have been made by the Authority for the isolation of patients suffering from dangerous infectious disease, and for the disinfection of their clothing and bedding. There is, the circular says, no reason to apprehend immediate danger to England from the reported prevalence of Plague in Russia; but it is deemed necessary to remind the Port Sanitary Authority of the grave responsibilities which devolve upon it in the event of the disease travelling this way. Our readers will find further reference to the subject of the Plague in another column.

At the meeting of the Kidderminster Chamber of Commerce held last week, it was mentioned that traders on the Continent had been in correspondence with local firms as to the alleged presence of arsenic in carpets; and in spite of analysis it appeared that they still believed that persons were being poisoned by the dust from carpets. Some feeling of the same kind, it was stated, also prevails in this country; and several retailers have been writing to Kidderminster for assurances that there was no arsenic employed in the manufacture of the carpets with which they were supplied. One of the manufacturers present definitely asserted that in producing the green colour found in Kidderminster carpets no arsenic was employed.

At a Congregation held at Cambridge on the 20th ult., the report of the Board of Medical Studies, recommending that steps be taken to obtain a statute for granting the degree of Bachelor in Surgery, was confirmed, and it was also resolved that the successful candidates for the degree of M.B. be divided into two classes, and that the examinations be held earlier in the Michaelmas term.

The Council of the Lancashire and Cheshire Branch of the British Medical Association have passed resolutions expressing the opinion that the duty of giving to sanitary authorities information as to the existence of infectious diseases should rest with the householder, and not with the medical practitioner, and appointing a sub-committee to oppose any attempt to make members of the profession pecuniarily responsible for making such reports.

It is announced that the annual conference on National Water-Supply, Sewage, and Health, will be held in the rooms of the Society of Arts, on Thursday and Friday, May 15 and 16 next, under the presidency of the Right Hon. James Stansfeld, M.P.; and at the same time and place there will be an exhibition of mechanical and chemical apparatus in connexion with the foregoing subjects. We also understand that the Council of the Society of Arts have determined to offer the gold medal of the Society, and three silver medals, for the best suggestions, founded upon evidence already published, for dividing England and Wales into watershed districts, for the supply of pure water to the towns and villages in each district. The suggestions must be sent in to the Society's office on or before April 26, so as to be discussed at the Conference now announced.

At the Royal Statistical Society, last week, Mr. Cornelius Walford communicated a second paper on "The Famines of the World, Past and Present." It will be remembered that some time since Mr. Walford read a paper at the same place, in which he treated of the natural causes of famines, such as droughts, floods, frosts, etc. The present paper referred to

famines arising from war, defective agriculture, deficient transport, legal restrictions upon exports and imports, and commercial distress. Mr. Walford offered some practical suggestions as to the best means of avoiding famines in the future, and referred to the Royal Commission in India now inquiring into the subject. The conclusions arrived at by the lecturer were, that the avoidance of famines in the future mainly depends upon two conditions—an improved system of agriculture, and enlarged facilities of transport, whether by canals (with which irrigation on a large scale might be combined where necessary), or by railways, or by both. The excess of mortality incident to famines was also dealt with and discussed in all its bearings.

It is authoritatively announced that the Rivers Conservancy Bill to be introduced into the House of Lords by the Duke of Richmond will not deal with the question of the pollution of rivers, but simply with the prevention of floods. The Bill is to be made applicable to Scotland.

At a meeting of the Bristol Board of Guardians held last week, it was reported that, in consequence of an outbreak of fever at the Bristol Workhouse, the water used by the inmates had been analysed, and was found to contain sewage contamination and a large quantity of phosphates, distinctly attributable to direct soakage from the workhouse cemetery immediately adjoining the wells. The vice-chairman pronounced the water to be "diluted sewage flavoured with decomposed bodies." It was unanimously resolved to stop the use of the wells, and to extend the use of earth-closets.

THE PRIMARY EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

We drew attention some weeks ago to the fact that a meeting of teachers of anatomy and physiology in the medical schools of England had been called together, for the sake of discussing the advisability of suggesting to the Council of the Royal College of Surgeons certain improvements in the method of conducting their primary examinations. Several meetings of the teachers took place, and the result has been a memorial embodying the suggestions which were under discussion at the first meeting, and to which we drew attention at the time. Nearly fifty signatures are, we are informed, attached to the document, in a few cases one or more of the suggestions having, however, been erased by the signer. The wording of the memorial is as follows:—"We, the undersigned, teachers of anatomy or of physiology in the medical schools of England, beg respectfully to call the attention of the President, Vice-President, and Council of the Royal College of Surgeons of England to the following statement:—We fully acknowledge the painstaking and conscientious devotion of the examiners to the duties of their office, yet, under the present system, we cannot conceal from ourselves the fact that the primary examinations for the membership and fellowship of your College sometimes fail to afford a satisfactory test of a student's knowledge. Our experience has shown us that the results of these examinations are at times so uncertain as to indicate that the method of conducting them may be capable of improvement. With the view of obtaining this object, we venture to place before you the following suggestions:—1. That separate examiners be appointed, and separate papers set, in anatomy, physiology, and comparative anatomy. 2. That in the written examinations there be an increase in the number of questions both on anatomy and physiology. 3. That a syllabus be furnished defining the amount of comparative anatomy required for the primary examination for the fellowship. 4. That the Council take into consideration whether some modification may not be introduced into the plan of conducting the *viva voce* examinations. We would further beg of your honourable body to receive, at a time convenient to yourselves, a deputation from our number, who might more fully explain the above suggestions." We have already expressed our belief that the adoption of such alterations as the memorial proposes would be of great advantage to the College, and we hope the Council will give them their earnest and serious consideration.

THE HUNTERIAN SOCIETY'S ORATION.

The annual Oration of the Hunterian Society was delivered this year on Wednesday, February 12, in the theatre of the London Institution, by Mr. Walter Rivington. The main topics of the Oration were the position of the medical profession in the body politic, and the means of raising it in public estimation. The defects of the preliminary, the scientific, and the professional branches of education and examination, the conflicting regulations of the nineteen licensing corporations, the over-legislation which burdens students, teachers, and schools, were discussed; objections to conjoint examinations were combated, and an adequate representation of the rank and file of the profession in the General Medical Council, the medical corporations, and in Parliament, was advocated. The orator spoke in favour of the requirement of Greek at the preliminary examination, of a preliminary scientific examination, the establishment of educational museums in the provinces, an examination at the end of each year of professional study, and the commencement of the professional curriculum in the summer in order that medical students might learn osteology and elementary human histology before the commencement of dissection in October. State supervision of all institutions for the distribution of medical relief to the poor; the more accurate adjustment of general and special hospitals to the needs of the population and the requirements of medical education; the elevation and extension of the Poor-law and Sanitary Medical Services, for the purpose of supplying the sick poor with adequate and qualified medical aid, instead of leaving so much to the laws of supply and demand, which had fostered empirics and counter-prescribing chemists, were upheld. Having made some stringent remarks upon the want of acquaintance of the public with matters medical; the hostility of the public, and the indifference of the powers that be, to the profession as a body, as exemplified in the sorry treatment of medical men engaged in the public services, and the attitude assumed towards scientific research, the speaker concluded with inculcating the necessity for union within the ranks of the profession, and the subordination of individual action to the common good of the professional community. The address was very favourably received, and a vote of thanks to the orator concluded the proceedings.

FROGS AND METALLOSCOPY.

Dr. Herman Vierordt, Assistant Physician in the Medical Clinic at Tübingen, has reported (*Centralblatt Med. Wiss.*, November 1, 1879) some experiments on frogs, made with a view to meet the objections of unbelievers in metalloscopy, that the reported cure or relief of hysterical hemianæsthesia depends on psychical influences. The question to be answered by these experiments was—Does the external application of a metal alter the sensibility of the animal experimented on? The frog was first deprived of its cerebral hemispheres, in order to prevent all spontaneous movements; and it was then fixed on a stand of cork and glass in a vertical position, with the legs pendent. The metal tried was, in all cases but one, zinc. It was applied as a disc, the size of a florin, to the abdomen, a quarter of an hour or more having elapsed between the experiment and the removal of the cerebrum. Each frog was experimented on

thus:—For twenty-five to forty minutes the normal sensibility was tested at short intervals, either by gently rubbing the longest toe (the fourth) or by lightly pinching it with a forceps. During a second period the metal was applied, and the sensibility again tested, as nearly as possible, in the same manner. To this succeeded a second normal period, a second period of application of the metal, and perhaps a third period of both. The reaction was estimated as (1) *nil* when no movement of either leg occurred, (2) as movement of the leg which was irritated, (3) as movement of both legs. No attempt was made to define the extent or force of the movements more accurately. The main results arrived at may be stated in a few words. The sensibility to *rubbing* was decidedly increased by the application of the metal, but more in the left than in the right leg. The sensibility to *pressure*, as evidenced by movement, was increased; but here the simultaneous movement of the two legs was far more frequent. Taking into consideration the differences in sensibility which different frogs exhibit, as well as the variations of sensibility which occur in the same animal, even during the time of the experiment, there can be scarcely a doubt that the application of a metal produces a positive effect. Dr. Vierordt has expressed his results numerically in tables appended to his paper; and, no doubt, the subject will attract the attention of other observers, and be further worked out.

THE PROPOSED CONVALESCENT HOME FOR INFECTIOUS CASES IN DUBLIN.

A PUBLIC meeting in furtherance of the project for establishing a Convalescent Home for persons recovering from dangerous infectious diseases took place in the Mansion House, Dublin, on Tuesday, the 18th ult. The Right Hon. the Lord Mayor presided, and there was a numerous and influential attendance of the supporters of the movement. Honorary secretaries having been appointed, it was proposed by his Grace the Archbishop of Dublin, seconded by Dr. James Little, Vice-President of the King and Queen's College of Physicians, and unanimously resolved—"That, considering the extreme prevalence of small-pox and other dangerous infectious diseases in Dublin and its suburbs, the establishment of a convalescent home for patients (including those of the better classes) recovering from such diseases is urgently required." A representative committee, with power to add to its number, was then appointed to carry out all the necessary arrangements for the prompt establishment of such an institution. As *ex-officio* members of the committee there were elected the Lord Mayor, the High Sheriff of Dublin, the county and city members of Parliament, the President of the College of Physicians, the President of the Royal College of Surgeons, the President of the Chamber of Commerce, the Chairman and Vice-Chairman of the Public Health Committee of the Corporation, the Chairmen of the North and South Dublin Unions and of the various suburban townships. Several subscriptions were announced as having been already received in aid of the undertaking, and a subscription-list was formally opened, the Lord Mayor and Mr. Abraham Shackleton being appointed treasurers of the fund. The meeting shortly afterwards adjourned, a vote of thanks to the Lord Mayor having first been carried by acclamation.

THE LONDON FEVER HOSPITAL.

AT a meeting of the governors of this institution in the Freemasons' Tavern, on February 13 (the Right Hon. the Earl of Devon in the chair), Dr. Broadbent, the senior Physician, read the medical report:—The number of patients admitted into the Hospital during the year 1878 was 635, which is about the average of the last three years. Of these 101 were cases of typhoid fever; and 417, or more than two-thirds of the whole cases, of scarlet fever. Diphtheria is received, but very few patients suffering from this terrible disease have been sent till this year. Typhus has been almost, and relapsing fever entirely, absent from the wards during 1878. The distribution of the different fevers throughout the year has followed the usual course. There was a slight autumnal increase of typhoid or enteric fever, and an increase of scarlet fever in spring and again in winter. Diphtheria was almost equally distributed through the year. Detailed information was given with regard to each form of fever, together with statistical tables, such as have been published annually during the existence of the Hospital, which constitute a most valuable series. Forty-two patients have been treated in the private wards, eight in number. It is not encouraging to the prospects of "home hospitals for the well-to-do" that so few take advantage of these rooms, for which the inadequate charge of three guineas a week is made, with food, medicines, stimulants, nursing, and medical attendance. It is a matter of serious concern to the Committee that the subscriptions and donations fall far short of the expenditure, so that for the last three years it has been necessary to sell out annually £3000 or £4000 of Stock. No Hospital can do more good, since, in addition to the benefit to the patients admitted, there is the prevention of the spread of contagious fever in the metropolis by their removal and isolation. Half the cases are admitted free, and the fee paid with the others does not cover one-third of the actual expense of their maintenance. Unless, therefore, the charitable public comes to its aid, the small capital of the institution must soon be exhausted, and an important safeguard against fever, cholera, and diphtheria will be crippled.

SEVERE SENTENCE ON A MEDICAL MAN.

IT is with very painful feelings that we have to record the proceedings in a case recently heard before Lord Chief Justice Coleridge, at the Warwick Assizes, when Mr. Thomas Millerchip, surgeon, was charged with the manslaughter of George Bastock, an infant, on January 25 last. Mr. Millerchip has practised for some years as a medical man in Coventry, and in October last was appointed medical officer to one of the town districts. The child was taken ill on Sunday, June 19 last, and on the 21st its parents obtained a note for medical relief from the relieving officer of the district. Mrs. Bastock sent one of her children with the note to the prisoner's house next day. Mr. Millerchip was not at home, and the note was given to the maid-servant. As the doctor did not come, another boy was sent three times that day. Still he did not attend, and constant messages were despatched to him on the Thursday and Friday. The child died between three and four o'clock on the Saturday afternoon, the doctor not having attended, although he had been sent for about eighteen times in all. On most of the occasions the messengers only saw Mr. Millerchip's servant, but on one occasion, on Friday, the eldest boy saw Mr. Millerchip, who said he would come in an hour, and on another occasion he delivered his message to Mrs. Millerchip. The servant-girl was called to give evidence, and deposed to the frequent messages sent by the Bastocks, all of which she communicated to her master. Mr. Millerchip eventually went to the Bastocks in the evening of Saturday, accompanied by the relieving officer. The cause of the child's death was found to be weakness resulting from diarrhœa. The mother was suffering from a similar illness at the same time. An inquest was held, at which the jury returned a verdict of manslaughter. For the defence it was contended that no negligence had been brought home to the prisoner. It was pointed out that the note sent by the relieving officer had not been marked "urgent," as was usual in urgent cases, and that

there was no proof that the children who came with the messages had conveyed to his mind any idea of the importance of the case, nor that all the messages had reached him. It was also suggested that the negligence was really on the part of the servant-girl, who, it was said, had been discharged at once for her carelessness in not informing her master of the various messages. Medical evidence was also given to show that no attention could have saved the child's life, though it might have been prolonged for a short time. His Lordship pointed out that the guilt of the prisoner depended on the extent to which the nature of the case was brought to his (the prisoner's) knowledge. To find him guilty they must first find that he had been guilty of culpable negligence, and, secondly, that such culpable negligence contributed to the death of the child. The jury found the prisoner guilty, with a very strong recommendation to mercy; and, taking this recommendation into consideration, it does seem rather astonishing that Lord Chief Justice Coleridge should have thought it necessary to pass the very severe sentence of four months' imprisonment with hard labour on Mr. Millerchip. The Judge took two days to consider this verdict, and it may therefore be fairly assumed that he deliberated fully on the distressing consequences it would entail on the prisoner; but, granting that a very strong case of neglect had been made out, it would almost appear that the total professional ruin of the offender was too severe a punishment to mete out for the offence.

A SURGEON KILLED IN THE STREETS.

We regret to learn that a medical man, Mr. J. Oakeshott, practising at Highgate, was knocked down and killed on Wednesday evening, while crossing the Charing-cross end of Northumberland-avenue. The deceased was passing from the Strand towards Whitehall, when he was struck down by the pole of a ginger-beer van coming from Cockspur-street. The pole struck him on the head, and when down the van passed over his body. He was taken at once to Charing-cross Hospital, but was already dead when seen by the House-Surgeon there. He had, according to the evidence of the House-Surgeon, a wound above the eyebrow penetrating the brain, and the skull was extensively fractured. The driver of the van has been committed for trial on the charge for causing the death of Mr. Oakeshott, and therefore we must reserve all comment on the "accident." But "accidents" to foot-passengers in our streets from careless drivers are terribly frequent, and in this deplorable case it was stated in evidence before the magistrate that the van was being driven at a dangerous rate, that there was plenty of light, and that the deceased was an active man, in good health, and not likely to be nervous in crossing a road.

RESIGNATION OF PROFESSOR BALFOUR.

The old race of Edinburgh Professors is rapidly becoming extinct. One by one they quit those venerable class-rooms, some, alas! conscious that the breaking of ties which had bound them to the University is only a preparation for the rupture of those wider connexions which bind them to life itself; while others, like Sir Robert Christison, have found in a retirement which had been honourably earned a rejuvenescence gratifying alike to themselves and their associates. We trust that in this respect Dr. Balfour will follow the example of his friend Sir Robert Christison, and that complete withdrawal from responsibility will be followed by such a restoration of his health as will enable him to enjoy his well-won leisure. Wherever Edinburgh graduates are to be found—and they are almost omnipresent—the news of Professor Balfour's resignation will cause sincere regret. For very many years he has been a central figure in a group of great men. His energy, his industry, his patience, and his scientific ability, have marked him as one from whom students could take not only doctrine, but example. In the class-room and the gardens, on the hillside and in the examination-hall, he was always enthusiastic and always thorough, and if he never aspired at making the teaching of botany romantic, he always endeavoured by energetic lecturing and demonstration to supply a knowledge for which, unfortunately, there was in many of his pupils only a limited demand. It says a great deal for the retiring Professor, that though his subject was by no means a favourite one, and though an appearance before him while he was acting in the capacity of an examiner was looked forward to for months with lively dread by the hundreds, we might say thousands, who have pored over his two thick volumes, he has personally been regarded with universal admiration and esteem. He has done excellent service to the University of Edinburgh and to the cause of botanical science, and we hope sincerely that the resignation of an appointment which he has held for many years, with honour to himself and credit to the University of Edinburgh, will enable him to acquire that health and strength without which rest is a burden, and retirement banishment. This hope will certainly be entertained by all who, in any capacity, have had personal or professional relationships with Dr. Balfour.

REINFORCEMENTS FOR NATAL.

Almost before the publication of our present number the whole of the reinforcements for Natal will have left this country; and it speaks well for the foresight of the medical authorities of the army that their portion of last year's vote of credit was so well expended that the medical equipment for the troops embarking was, in this instance, ready before the transports taken up could be prepared to receive the men. The medical staff ordered out to meet the present emergency will be found to be nearly as follows:—Deputy Surgeon-General Holloway; Surgeons-Major Ashton, Babington, Bourns, Bolton, De Hodgson, Edge, Elgee, Giraud, Hunt, Leslie, Lamb, Leask, Robinson, Semple, Smith, Stock, Wallace, and Ward; Surgeons Conolly, Cross, Harding, Jagoe, Landon, Ritchie, Townsend, and Wallis. In addition to the foregoing, some six or eight civilian surgeons have embarked for service in the field, and a necessary proportion of the Army Hospital Corps, under its own officers. Medical work in the bush is, of all descriptions, nearly the most trying, and it is attended with an amount of risk not to be found in civilised warfare, since to burn a hospital and shoot its medical attendants is still a deed of glory in the eyes of the valiant Zulu.

A THEORY OF THE ACTION OF ARSENIC.

Professor Binz of Bonn, and Dr. H. Schulz (*Centralblatt Med. Wiss.*, No. 2, 1879), starting from the fact that a subcutaneous injection of arsenious acid in solution, or of one of its neutral salts, produces no caustic effect at the seat of injection, but only in distant organs (stomach, small intestine), have been led to the belief that arsenious acid acts in the tissues, in contact with living protoplasm, as an oxidising agent, or carrier of oxygen from one albuminous molecule to another. During this process it is converted into arsenic acid, then reduced, again oxidised to arsenic acid, and again reduced, exactly as hyponitrous acid is oxidised to nitric oxide, and again reduced, in various chemical reactions. Both arsenious and arsenic acids are used in the arts as oxidising agents—for example in cotton-printing, and in the preparation of aniline,—and the authors of the theory before us have proved that arsenic acid can be reduced to arsenious acid, and, *vice versâ*, arsenious acid raised to arsenic acid, by digestion, under

certain conditions, with various albuminous substances at a blood heat. From these and other considerations, therefore, they assume an oxidation within the tissues of arsenious to arsenic acid by means of the living protoplasm. The arsenic acid, in undergoing reduction, in its turn exerts a caustic action on the part where it was formed. Professor Binz concludes that its formation in the protoplasm of the nervous centres, where tissue-change is so active, explains the symptoms of irritation and subsequent paralysis of these centres in arsenic-poisoning. In the same way he explains the diminution of glycogen in the liver, the increased excretion of nitrogen in the urine (Gaethgens and v. Boeck), the fatty degeneration of various organs in chronic arsenic-poisoning, and the influence of the drug on malaria and on some malignant lymphomata. No doubt many more experiments and observations must be made before the new theory will hold its own, but it may be provisionally accepted on the author's own terms—namely, that "it gives a simple explanation of the chief phenomena produced by arsenic, does not contradict any known fact, and has an experimental basis."

INDIAN MEDICAL SERVICE.

The following is a list of the candidates for her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on the 17th ult. and following days. Twenty-eight candidates competed for fourteen appointments; all were reported qualified.

	Marks.		Marks.
F. F. Perry . .	2340	C. H. Murray . .	1910
C. B. Hunter . .	2210	H. G. L. Wortabet .	1885
P. W. Dalzell . .	2195	J. C. C. Smith .	1830
S. Little, M.D. .	2185	R. James . . .	1775
G. H. D. Gimlette .	2180	F. Burness . .	1771
M. Gaisford . .	2085	E. P. Frenchman .	1705
W. F. Thomas . .	1935	S. C. Sarkies . .	1670

THE MODELS FOR THE PROPOSED STATUE OF HARVEY.

We are requested to state that the models by the three artists who were invited to furnish designs for the statue of Harvey, which is to be erected at Folkestone, will, by permission of the Lords of the Committee of Council on Education, be exhibited at the South Kensington Museum on Saturday, March 1, at twelve o'clock, and will remain on view until March 29, from 10 a.m. to 4 p.m. daily.

THE PLAGUE.

At a special meeting of the Epidemiological Society of London, held on the evening of Wednesday, February 26, two important papers were read. The first, by Mr. J. Netten Radcliffe, gave a succinct account of the progress and manifestations of Plague from its reappearance in 1853. The second paper, communicated by Dr. E. D. Dickson, Physician to the British Embassy in Constantinople, gave the best details we have had at the present time regarding the clinical features of the disease, and the conditions of its propagation. The paper gave the descriptions of the characteristics of the Plague as it manifested itself to eye-witnesses in Mesopotamia in 1876 and 1877. An interesting discussion followed the reading of the papers, the general conclusions of which were that there can be little doubt that the outbreak reported from the districts around Astrachan was one of true Plague, but that there was not the slightest ground for any panic regarding the disease in Western Europe. The opinion of those most competent to judge was that in such a country as our own the institution of anything like a quarantine at our ports was an absurd proposal; and that if the disease did unfortunately manifest itself, we had ample powers for dealing with it satisfactorily by our present public health regulations. Strict quarantine might be useful in States which possessed no such powers for dealing with the disease if once introduced; but the conditions of the propagation of the disease were not different in kind or degree from such diseases as typhus, so that anything like panic about the matter was quite irrational in such a country as our own. We hope next week to print the two papers in full, and to give a report of the discussion.

HEALTH OF THE MARTLEY UNION, WORCESTER.

The annual sanitary report of Mr. G. E. Hyde, Medical Officer of Health to the Martley Union, Worcester, for the year 1878, records a satisfactory condition of affairs, inasmuch as the death-rate for the year has been only 16·96 per 1000 of the population, and there has been no mortality during the period from either small-pox, measles, or scarlet fever. Five years have now elapsed since health officers were appointed in this union, and Mr. Hyde mentions that he finds among the people an increasing appreciation of the benefit they derive from the action of the Sanitary Authority, as well as more willingness to keep premises in a cleanly state, and a greater desire to obtain good water. Diphtheria, he remarks, is more common in the country than in towns, and he instances it as a striking fact that the mortality of the young inhabitants of farmhouses is much higher than among the poorer labouring classes. Considering, he says, that the children of farmers are better housed and fed, there must be something in the surroundings to account for this; and he throws out a suggestion as to whether the dirt which feeds zymotic germs found in farmyards and foul pools can be looked upon as the cause. After twenty-five years of age, by which time the young have gone through many diseases, each claiming its quota of victims, this excessive mortality ceases, and after thirty-five the labourer experiences a higher rate of mortality than the farmer. Mr. Hyde thinks that the provisions of the Public Health Acts have been fairly carried out in the union, and have generally been found to work well, without pressing too hardly on either owners or occupiers.

MEDICAL PARLIAMENTARY AFFAIRS.

Water Companies' Bills.—In the House of Commons, on Thursday, February 20, Mr. A. Brown asked the President of the Local Government Board whether, having regard to the numerous private Bills for the supply of water which Parliament had to deal with every session, he proposed to carry out the recommendations of the Select Committee upon the Public Health Act (1875) Amendment Act, and especially with reference to the obligation of a water company, when the mains passed through a rural district in want of water, to supply such district on proper terms. Also, whether the officers of the Local Government Board would report to Parliament the respective wants of the districts, in regard to water, through which the water-mains passed. Mr. Sclater-Booth said that when he had an opportunity of introducing a Bill to amend the public health he would not fail to give consideration to the recommendation of the Committee. With regard to the proposed reports from rural districts, in respect of water-supply, careful local inquiry would be needed, and there was no staff at the disposal of the Local Government Board for such a duty.

Noxious Vapours.—Mr. Sclater-Booth, replying to Viscount Newport, said he had a measure prepared on the subject of noxious vapours, and he hoped to be able to submit it to the House.

The Plague.—In the House of Lords, on Monday, February 24, the Duke of Richmond, replying to Lord Stanley of Alderney, said that the Government intend taking the same measures with regard to shipping coming from the Baltic as from the Black Sea, in respect of precautions against plague. All shipping from these northern ports being now stopped by ice, it is not necessary to issue the same order. The Government do not think it necessary to place restrictions on the importation of rags.

Dairies, Cowsheds, and Milkshops.—Lord Cottesloe having complained that the Order in Council lately issued in respect

of Section 34 of the Contagious Diseases (Animals) Act was unnecessarily stringent, asked that dairymen, not being sellers or purveyors of milk, might be excluded from the Order in Council. The Duke of Richmond replied that all who sold butter, cheese, and milk must be included within the order; but those who sold butter and cheese, but not milk, he thought should not be included in the order, the object being to secure to the public a supply of pure and wholesome milk, as it was known that disease was much spread by the use of bad milk.

Diphtheria.—In the House of Commons, Mr. Sclater-Booth said he had no objection to lay upon the table the report made by Mr. W. H. Power on the cause of the late outbreak of diphtheria in North London.

Small-pox.—In reply to Dr. Cameron, Mr. Sclater-Booth said that the report upon the inquiry instituted last year into the causes of the prevalence of small-pox in the metropolis would, no doubt, contain information that would lead to a useful amendment of the law.

Medical Officers in Irish Prisons.—Sir H. Selwyn-Ibbetson, in reply to Mr. Errington, said that the Irish Government had submitted certain proposals for the remuneration of medical officers in Irish prisons. He could not yet give any information as to the effect they might have upon the pay of surgeons of county infirmaries who give their attendance in gaols.

Coroners.—Mr. Cross, replying to Mr. Pell, said that the Bill was drawn, and that ample opportunity was given to the Select Committee to report on the whole question of the appointment, duties, and pay of coroners. If necessary, he would not object to the reference being enlarged, so as to allow the Committee to take evidence if they found it necessary to do so.

Habitual Drunkards.—Progress was reported with this Bill.

Medical Acts Amendment.—In the House of Lords, on Tuesday, February 25, the Duke of Richmond laid on the table a Bill to amend the Medical Acts, and remarked that the provisions in this Bill are substantially the same as in that introduced last year. He alluded to the objections to the existence of nineteen separate licensing bodies for the United Kingdom, each giving a diploma which entitles to a place on the Medical Register. The Bill of last year left it optional to the medical corporations to form a Conjoint Examining Board. He had, meanwhile, carefully considered the arguments for and against the compulsory principle, and he had arrived at the conclusion that the corporations must form a conjoint board of examiners. In the Bill of last year the certificate of the Conjoint Board would have been sufficient to entitle the candidate to be registered as duly qualified to practise medicine and surgery. The effect of this would be to lower the status of the medical profession. He proposed that any person obtaining the certificate should be then entitled to present himself to any of the medical corporations and solicit its diploma, on obtaining which he would be entitled to registration. If the diploma were refused the candidate could register on the certificate of the Conjoint Board alone. This would prevent any impediment being offered to the due registration of women who may have passed the examination of the Conjoint Board. The Government intend to refer to a joint Committee of the two Houses of Parliament the task of inquiring into and reporting on the constitution of the Medical Council, and as to what changes, if any, were desirable. The progress of this Bill would not be arrested for the result of the inquiry. Lord Ripon hoped that the Bill would receive the support of Parliament. It was very needful to have but one portal to medical registration. The second reading was fixed for next Tuesday week.

Water-Supply of Lancashire and Yorkshire.—In the House of Commons, Mr. S. Howard moved for a Royal Commission to inquire into the deficiencies of the water-supply of Lancashire and Yorkshire, and into the necessity and expediency of resorting to the lakes of Cumberland and Westmoreland for such a supply. He criticised the evidence given before the Committee on the Thirlmere scheme last year, contending that it had not adequately considered the question on the ground of public utility. Mr. Sclater-Booth replied that the objections raised by Mr. Howard were entirely insufficient to justify the appointment of a Royal Commission. Dr. Playfair, the chairman of the Committee, defended the action of the Committee on the ground of completeness of their inquiry.

FROM ABROAD.

Case of Complete Symblepharon of Both Eyes.

In the *New York Journal of Medicine* for January 7, Dr. Chisolm, of Baltimore, relates a remarkable example of this rare affection. The patient, now thirty-six years of age, suffered when sixteen years old from a general cutaneous affection, which his physician of that time called eczema. Large portions of the skin peeled off, leaving cicatrices which are still visible, weeks elapsing before the raw surfaces had healed. At the same time the eyes became painful and swollen, and discharging; and eventually adhesion took place between the eyeballs and eyelids, accompanied by thickening of the cornea and diminution of sight. After two years of partial blindness, an attempt was made to liberate the left eye from its eyelid, with the result of inducing panophthalmia and atrophy of the globe. From that time (sixteen years) the patient has worked on a farm, having enough sight to enable him to plough and hoe. The eyelids of the eye that was operated upon are now found closely adherent to the shrunken eyeball, as well as to each other. The right eye does not exhibit any symblepharon until handled, the palpebral opening being of full length, the cornea looking dull, and the lids just covering its upper and lower margins. Close examination shows that the lids are closely adherent along these lines to the eyeball from canthus to canthus. All traces of the conjunctival *cul-de-sac* are obliterated, the puncta lachrymalia being also obliterated, and the outlets of the lachrymal gland occluded. The conjunctiva has encroached upon the cornea, and can be lifted up as a thin membrane from the surface when the lids are drawn forward, as in advanced pterygium. A third of the cornea (the inner and lower segment) is covered by thickened epithelium only, which allows the pupil to be seen by translucency; and through this he can make out some letters of Jäger's types (XX.), and can count fingers at three feet distance. The exposed surface of the eyeball is as dry as the skin, no lachrymal secretion having moistened it for eighteen years. The long exposure, desiccation, and thick epithelial covering have so destroyed its sensibility, that the corneal surface does not resent the rude rubbing of the finger. The patient washes the front of his eye as a part of the face. He finds it necessary to wet it frequently during the day, especially in hot weather, when it becomes the seat of painful burning if cold water be not frequently applied. The strongest sun-light does not annoy. The eye is closed during sleep by the drooping of a fold of skin from the upper eyelid. Long-continued effort of an over-developed orbicularis has caused this to hang down in front of the cornea, like a badly working window-shade. On closing the eye by this manœuvre the entire row of lashes is thrust in upon the cornea, but they are unnoticed by this torpid membrane. When foreign bodies get upon the conjunctiva they often stay for hours, until an opportunity offers to wash them off. Under emotional excitement the patient finds it necessary to use his handkerchief frequently on account of accumulation of liquid in the nostrils, while the eye remains absolutely dry. As the most careful examination indicates no trace of lachrymal secretion, the source of the nasal fluid must be a hyper-secretion from the nasal mucous membrane under reflex stimulation.

"In explanation of this very rare case of complete symblepharon of each eye from idiopathic cause, there must have been a general exfoliation of the entire epithelial lining of the conjunctiva at the time when the throwing off of the cuticle in various parts of the body exposed the cutis vera in open sores, to heal by the slow process of granulation and cicatrisation. With an entire raw surface of both eyelids and eyeball, complete adhesion of the opposed surfaces could be readily effected, destroying the *cul-de-sac* from its inmost depths. The patient prior to this skin eruption had had no eye disease. The continuous line of lashes on the left lids, where they have not been disturbed by excessive muscular action, shows that there had been at no time chronic blepharitis. Nor had there been trichiasis, that fruitful source of conjunctival atrophy, which, after many years of irritation, may obliterate by gradual shrinkage the conjunc-

tival sac. The eye gave every evidence of adhesion as from the sloughing from destructive caustics."

No operative treatment was considered possible, and the patient was only directed to use daily a solution of sulphate of atropia in castor oil, with the view of enlarging the pupil and keeping soft and clearer the thickened cornea.

Attitude in Surgical Diseases.

The following are some of the points most noticeable in a lecture delivered by Prof. Agnew at the University of Pennsylvania, and reported in the *New York Medical Record* for November 30:—"A large proportion of the injuries of the bony skeleton," he observes, "generally manifest themselves by some peculiarity in the position of the patient. By this statement I mean that if the patient is carefully watched the lesion will reveal itself by the position which he assumes before any other visible signs of the condition appear. This leads me to speak of the attitude and form or expression of a part as an element in the diagnosis of surgical disease. By 'form' or 'expression' I mean the peculiar conformation of different parts of the body in health and disease. In health, the form of one side of the body is the same as that of the corresponding side. In disease, therefore, we always compare the diseased with the sound side. Every part of the body has an expression of its own in health and disease. The fact that the skeleton is fixed gives expression to the surface of the body."

Pott's Disease of the Spine.—This may lurk in the spine a long time before it is discovered; but by careful examination we can generally predict its approach. In this case a cure may generally be obtained without any serious disorganisation; but, however early it may be detected, there will still be some resulting deformity. A feeling of discomfort about the sides, attended with sudden spasm of pain, is a symptom of the early stage, the child crying out suddenly, and then relieving pain by lying down. Another symptom is grunting respiration, with short, hoarse breathing. We may have this symptom without Pott's disease, but its presence should always awaken suspicion. A child with Pott's disease, too, will often be found leaning over a table and complaining of a tired feeling—a symptom of great value. The muscles of the back are weary, because they are not perfectly energised by the nerves, which are compressed by the inflammatory deposits and thickenings at their roots. Again, the child may often be observed to jump from a sofa or a chair to the floor, and, lighting on its feet, seem for a time bewildered. If such a child walks about much, it does so with a great degree of uncertainty, and has a most peculiar gait—the shoulders drawn up, concealing the neck, with the arms fixed rigidly and held away from the body. The patient does all this, and shuffles along rather then walks, to prevent all concussion or shock to the spine. In a month or so after the disease has begun, little irregularities of the spinal processes are detectable. The least twist of the spine brings on pain and discomfort, so that the child is compelled to keep perfectly rigid, and when it stoops does so by bending one limb and carrying the arm down, while the spine is kept perfectly stiff—otherwise, "squats." The trapezius muscle is in a constant state of spasm, and so the patient keeps the shoulder up. The scapula too is held up, for if it were allowed to drop it would drag on the spine. The presence of this sign seems generally to indicate disease in the upper part of the column. Whenever you find one or more of these symptoms co-existent with pain in the chest and colichy pains in the abdomen, you may, in most cases, be pretty sure that you have to deal with a case of Pott's disease.

Hip-Joint Disease.—This disease often goes on to the second stage without being detected; while treatment, if it is to be successful, must be begun early, when we may get very excellent results. Certain symptoms may be discovered long before any marked deformity is visible, and the earliest of these is the assumption of a certain posture by the limb on the affected side. The patient in standing rests firmly on the sound limb, but not on the other. This limb, too, is generally somewhat emaciated, and is carried forward and flexed at the knee on the thigh, and at the thigh on the body, the foot being everted. The crease also which separates the nates from the thighs is entirely gone on the diseased side. The limb assumes this attitude in consequence of effusion into the joint, due to synovitis, which always exists in coxalgia. The serum in the joint wants room, and the patient places the limb in a position so as to give most room for the effusion. Flexing the limb and everting the toes increases this room, as may be verified in the dissecting-room. Bore a hole above the acetabulum in a sound limb, and inject water into the joint, when the limb will be found to take the very position which it assumes in a case of coxalgia. Another prodromic sign is the following:—Place a healthy child on a table, with its limbs well straightened out, and it will be found just possible to edge in the fingers between the child's loins and the table. If, however, one of its hip-joints be diseased, the knees will be raised when the child is placed on the table; and if they be thrust down, the whole fist can be passed in between the loins and the table—the whole pelvis, in fact, goes up as the knees are pushed down. When the knees are forced down, the psoas and iliacus are put on the stretch, and to relieve the pain caused by this stretching the patient raises his knees.

Inflammation of the Psoas Muscle.—The effects of this so much resemble those caused by coxalgia, that the two are often confounded. You must take hold of the limb and flex it. When flexed beyond a certain line, the pelvis in coxalgia will rise, while it is not affected in inflammation of the psoas.

Symmetrical Coxalgia.—Here both hip-joints are affected, and it is often mistaken for spinal disease. The position is very peculiar at a certain period in the course of the disease, viz., when, after the conclusion of the first stage, the affection takes a favourable turn, and anchylosis has commenced. The thigh bones are carried forwards, and the patient throws himself very far back, producing a deep concavity in the lumbar region. In walking he balances himself by throwing his hands and arms forwards, the chest being at the same time made prominent. In bad cases the patient may be forced to assume a trotting gait.

Fracture of the Clavicle.—You may see a patient walking into the hospital, carrying one arm in the opposite hand, and leaning forward towards the side of the helpless limb. The whole body is inclined towards that side. When the clavicle is broken the shoulder drops, and carries the trapezius down with it, while the sterno-cleido-mastoid, contracting, drags the inner fragment up. The patient feels the want of support for his shoulder, and puts his hand under his arm to hold it and the shoulder up. If he inclined his head towards the other side of the body, it would drag on the sternal side of the clavicle. By inclining the body and head towards the injured side both the trapezius and sterno-cleido-mastoid are relaxed.

Intracapsular Fracture of the Femur.—A person over sixty years of age, who has slipped on the pavement and doubled his limb underneath him in falling, when raised finds his limb helpless. Such a person will be found lying with the sound limb turned a little out, and its injured fellow turned so far out as to be resting entirely on the outer side of the limb and foot. The patella on the injured side will be found, on careful examination, to look directly outwards.

Rheumatic Arthritis.—After effusion has commenced, the limb on the diseased side is a little swollen, and, instead of lying parallel with the other, is flexed and carried away from it—the greatest room being afforded by that position for the effused fluid. A patient suffering from this is afraid to touch anything with the affected limb, dreads the least movement, and raises his hands in a warning attitude.

Dislocation of the Shoulder.—This is very often overlooked. No matter what the nature of the luxation, the arm will always be found to stand off from the body, unless it be a very old case, when it may hang stiffly by the side. The shoulder is always flattened. The reason why the arm stands off from the body in sub-coracoid or sub-glenoid luxations is because the deltoid is put upon the stretch, pulling the arm forcibly away. If an attempt be made to push it to the side of the body, it will immediately spring back.

Luxation of the Elbow.—The arm is usually rigid, and a marked prominence is felt behind the elbow, which stands far back, the skin being stretched tight over the extremities of the radius and ulna. The arm is generally in a state of moderate flexion.

Arthritis of the Wrist.—The hand is held straight out, and there is a very marked swelling at the back of the wrist. The fingers are glossy. Any attempt to move the joint gives the most exquisite pain. This arthritis frequently terminates in disease of the bones. The joint may recover if

anchylosis take place. This peculiar conformation of the hand and wrist is not found in luxation or fracture. It is the posture which gives the greatest amount of room to the effusion.

GENERAL CORRESPONDENCE.

THE LONDON MEDICAL SCHOOLS.

LETTER FROM MR. BRUDENELL CARTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your incidental reference to my reply to Mr. Gilbert's attack upon medical students and upon medical schools, you observe, very justly, that you do not quite see what certain parts of that reply have to do with Mr. Gilbert. You induce me to relate the story of the article. When Mr. Gilbert's attack appeared in the *Fortnightly Review*, I applied to Mr. John Morley, the editor, for permission to reply in the next number of the same journal. The permission was accorded, but under two conditions: first, that I should not write merely a reply to Mr. Gilbert, which was all I wished to do, but a sort of general essay upon medical education; secondly, that the manuscript should be delivered by January 15. In consequence of the time required for the collection of statistics, I had but little left in which to write; and when, on the 15th, Mr. Morley received my article, he refused to publish it unless I would consent to the omission of certain passages, some of which I thought it essential to retain, and unless I would consent without any protest or complaint, allowing it to be supposed that what appeared was all that I had written. To these terms I refused to assent; and although the great kindness of the editor of the *Contemporary Review* allowed me at that late period of the month to publish the article without delay, yet I had no time to remove from it the portions which were only introduced in order to satisfy Mr. Morley's first requirement. To have removed these portions would have rendered it necessary to begin again from the beginning, and this I was unable to do. I am, &c.,

R. BRUDENELL CARTER.

69, Wimpole-street, W., February 22.

REPORTS OF SOCIETIES.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, JANUARY 22.

S. J. A. SALTER, F.R.S., President, in the Chair.

AT the annual meeting of this Association, on January 22, Dr. G. Yarrow, Mr. R. W. White, and Mr. E. J. M. Phillips were elected Fellows. The following proposals were then read:—Dr. R. T. Stack, Dr. D. W. Hogue, Mr. C. H. Tamplin, Mr. W. A. Hunt, Dr. Robert J. Lee, and Mr. H. L. Jacob.

The adjourned discussion on Dr. C. Meymott Tidy's paper on "Anæsthetics" was resumed.

Mr. W. A. N. CATTLIN thanked Dr. Tidy for his able paper, and for the comprehensive manner in which he had treated his subject. One point, however, he had not alluded to—viz., the dangers of chloroform to anæmic subjects; and also to the risk of blood running into the larynx. With regard to Dr. Tidy's proposition of a third practitioner being present, and the anæsthetic administered at the patient's residence, he thought, as a rule, this would be found to be impracticable.

Mr. CLOVER considered the subject as one of great importance to surgeons practising dental surgery, on account of the difficulty of maintaining the anæsthesia during operations on the teeth. The result is that larger doses are given than are ordinarily required, in order that the effect may last after the anæsthetic is removed. To this, rather than to any special danger of irritating a particular part of the nervous system, must be attributed the undue proportion of serious accidents which have occurred. He regarded it as dangerous advice to say, "Give chloroform freely, because there is greater danger of syncope from the patient feeling pain than from an overdose of chloroform." Syncope from a large dose of chloroform is almost certainly fatal; the other syncope is cured with equal certainty by the recumbent position, unless there be heart disease. Chloroform need rarely be given for dental operations, nitrous oxide being, as a rule, sufficient; but in prolonged operations he gave during six to ten inspirations as much ether with the gas as will not produce swallowing or coughing. In longer operations he would give ether gradually after the fourth inspiration of gas, and continue it till stertorous breathing had lasted a minute or more, then remove the face-piece and hold it over the nose. He had lately tried the effect of mixing a fifth part of oxygen with nitrous oxide, as suggested by M. Bert, but found the patient more liable to excitement whilst inhaling, but with complete anæsthesia, as when pure gas was used. He did not look favourably upon the mixture of nitrite of amyl and chloroform. There is less depression at the time, but as much nausea afterwards. He greatly preferred ether and gas. One should always be prepared for a patient struggling, and it was useful to keep a handkerchief over the patient's eyes whilst waking up, as well as whilst commencing to inhale.

Dr. SMITH (Edinburgh) stated that, as far back as 1858, he had drawn attention to the fact that in operations about the mouth the circumstances of the case have more to be taken into account during the induction of anæsthesia than in any other operations, owing to the peculiar intensity and persistence of the sensory powers of the fifth pair. With regard to chloroform, the danger most directly to be apprehended is that of asphyxia. With the mouth open, be it ever so slightly, deglutition is prevented; and an accumulation of saliva or blood, or both, thus frequently in these operations collects over the upper part of the larynx, interfering with the admission of air. The danger of suffocation may be averted by pulling forward the tongue, thus mechanically opening, and, as Professor Lister has shown, physiologically exciting retraction of those structures impeding respiration. He always cleared out the fauces by the finger covered with a napkin, thus exciting the pharyngeal muscles to action, and rendering the larynx patent by moving the base of the tongue forwards, and without wounding or injuring that organ. He deprecated placing anything between the jaws to keep the mouth open in the early stage of giving chloroform, as incurring unnecessary risk, and alluded to another source of danger—viz., syncope, often induced by an undue reclination of the head, causing pressure on the vessels of the neck; and insisted on the horizontal posture being always adopted during the exhibition of chloroform. In all cases, anæsthesia, to be either satisfactory or safe, should be complete, as tending to diminish shock. Shock interferes with the heart's contractions by the influence of the cerebro-spinal system on the cardiac ganglia through the par vagum. The most probable cause of death, where its occurrence under anæsthesia has been unavoidable, would appear to be disturbance in the reflex excitability of the nervous centres affecting the heart; nor must we forget that the same condition of the nerve-centres predisposes in precisely the same manner to accidents from the operation or the disease itself, for which the chloroform is required. In conclusion, he wished to show that deaths associated with chloroform separated themselves into two divisions, avoidable and unavoidable. The former tells, of course, not so much against the administration as the administrator of this agent; the latter constitute an interesting series, probably all belonging to cases whose condition, altogether apart from anæsthesia, was unsuspectedly near to death, and where the chloroform acted merely as the touchstone of their hold on life.

Mr. BAILY had found in his experience that bichloride of methylene was not pure after the bottle had been once opened. He always advocated the administration of chloroform in severe cases, and did not consider there was any necessity for a third person being present in dental operations. He preferred Dr. Howard's plan of artificial respiration in preference to that of Sylvester.

Mr. HAMILTON CARTWRIGHT, after comparing the relative value of ether, chloroform, and nitrous oxide, maintained that chloroform was justifiable in certain difficult operations upon the mouth, provided due precautions were taken. Nitrous oxide had dangers, and deaths had occurred through its use; but he alluded to more insidious dangers still.

Other anæsthetics killed outright, but nitrous oxide caused results, the origin of which remained in oblivion. The experiments of Dr. T. Reid and Professor Rutherford showed (in relation to apnœa and asphyxia) that the phenomena of nitrous oxide anæsthesia were similar to those seen in such conditions. He wished to prove the after ill-consequences of nitrous oxide, notably in cases of weak and flabby heart; and, as a consequence of its use, quiescent disease might become active and fatal. He laid great stress upon the necessity for the examination of the heart prior to giving the gas, and begged all those surgeons practising dental surgery to consider a knowledge of the sounds conveyed to the ear in heart and lung disease as an integral part of their speciality.

Mr. F. Mason said that in cases of cleft palate he always preferred chloroform, as ether caused extra salivary secretion.

Mr. Napier remarked that, as a rule, it was those surgeons practising dental surgery who always employed experts for the administration of anæsthetics. He alluded to the difficulty of giving anæsthetics to patients with beards, and reminded Dr. Tidy that he had omitted to mention one important point, viz., the abstaining from food for a few hours prior to taking an anæsthetic.

Mr. S. Cartwright gave his experience of the action of the different anæsthetics, and spoke of the objections to ether in operations on the mouth. He mentioned how differently persons were affected by anæsthetics; and considered, with regard to chloroform, that, provided due precautions were taken, its use was not contra-indicated in severe and exceptional operations. He had seen many cases of severe constitutional disturbance after nitrous oxide, and thought it would be useful if practitioners were to take notes of every case in which after-trouble was experienced.

Mr. Craigie asked Dr. Tidy whether he considered there was any foundation in the recent statement of M. Perrin, that chloroform, owing to its impurity, was now much less reliable than it used to be; and whether any of the fatal results can be attributed to that cause? And also whether, in cases of impending dissolution from chloroform, he had had any experience in the hypodermic injection of digitaline?

Mr. Coleman said, in regard to the physiological action of nitrous oxide, this, at least, was clear from the experiments made by Hermann, Frankland, and himself, viz., that it was not decomposed in the blood; it was probably held in weak affinity to some of its ingredients. When nitrogen was breathed, it simply received the carbonic acid from the blood, and as the oxygen in the blood became by degrees expended (the latter portions being given up much less readily than the earlier), so anæsthesia became slowly and imperfectly produced. In the case of nitrous oxide it readily supplied the place the oxygen had occupied, which latter was soon exhausted, and then anæsthesia from impossibility of change in the nervous centres of a perfect kind followed as a necessity. He should much like to hear Dr. Tidy's view of the matter.

Mr. A. Stewart was of opinion that nitrous oxide was the anæsthetic best adapted for dental operations, chloroform being admissible in exceptional cases. He considered gas could not be administered to all comers, and in his own practice rejected probably 5 per cent., and warned another five against expecting complete success. We know that many patients who have once taken the gas refuse it a second time. And why? That there are certain constitutions where ill after-effects result there can be no doubt. Mr. Hamilton Cartwright had mentioned cardiac mischief; his cases were chiefly cerebral, followed by drowsiness, and more or less lethargy; and in one case active means had to be taken for two hours to keep the patient awake. He had found that somnambulists and dreamers were bad subjects for nitrous oxide.

Mr. Edgelow was of opinion that nitrous oxide was the anæsthetic best suited for short operations; and that, combined with ether, it was exceedingly valuable where the anæsthesia was desired to be prolonged. He narrated the case of a lady in his own practice, in which two glasses of sherry produced complete anæsthesia; the patient otherwise never touched wine.

The President, in offering a few remarks on bichloride of methylene, stated that he had used this agent for three years with most satisfactory results, and preferred it to either ether or chloroform. The physical phenomena were similar to those produced by chloroform, the action being, however, more rapid, the period of insensibility shorter, and the recovery quicker. He gave it in rapid doses, with a very small amount of oxygen, by means of a leathern cylinder with a flannel bag at the end. If he gave up nitrous oxide he should certainly return to bichloride of methylene.

Mr. Hunt (Yeovil) believed that nitrous oxide had a distinct action of its own in the system, and was surprised to find the opinion still held that the anæsthesia was caused simply by providing the lungs with a harmless medium for respiration, containing no free oxygen. He alluded to the experiments of Mr. Coleman and others, in which pure nitrogen was given to animals, thus cutting off the supply of oxygen, and without any anæsthesia resulting similar to that from nitrous oxide. He argued that if chlorine be a source of danger, as many contend, then bichloride of methylene should be a safer agent than chloroform, owing to its containing one grain less. He considered that post-mortem appearances were likely to lead us into error, and believed that a gorged condition of the right heart found in patients dying of Asiatic cholera was analogous to what took place in chloroform-poisoning, and bore out Dr. Johnson's theory of blood-stasis in cholera.

Dr. Tidy, in reply to the President, remarked that, with respect to bichloride of methylene, the question really was, Was it bichloride of methylene that was being administered under that name? In his experience it was not, for bichloride of methylene was so unstable a body that by a very slight exposure it ceased to be such. On these grounds he objected to it, for, though the change may be merely its conversion into common chloroform, it was preferable to start with a body of known composition and of a somewhat stable nature than with an unstable and uncertain compound. The Secretary had asked how far the evil effects of chloroform resulted from impurities. He had examined the chloroform used in five cases where a fatal result had occurred: in two it was not pure; in the remainder it was. With respect to digitaline, he had had no experience. As regards the physiological action of nitrous oxide, the spectroscope showed distinct evidence of a chemical change in the hæmoglobin, induced by its inhalation. With respect to other gases, such as carbonic oxide, for example, its combination with the hæmoglobin of the blood, and the inability of the carbonic-oxide-hæmoglobin to give up the carbonic-oxide, as oxyhæmoglobin delivered up its oxygen, was the cause of carbonic-oxide poisoning. Hence there can be little doubt that there are chemical changes induced in effecting anæsthesia by gases. What the evil effects of nitrous oxide may be was a subject that, in his opinion, should be frequently discussed by the Society. Evil effects may be remote as well as immediate, and he had been lately informed by a well-known physician that he had been able to trace certain bad results from gas-inhalation, after an interval of seven or eight weeks. This was a serious matter for their consideration.

CLINICAL SOCIETY OF LONDON.

Friday, February 14.

Dr. Greenhow, President, in the Chair.

Dr. Douglas Powell showed a case of leprosy with glandular enlargement. A photograph of the case in an earlier stage will be found in the *Pathological Transactions*, vol. xxix. Dr. Powell desired that a committee should be appointed to investigate the case.

Later in the evening the President nominated Drs. Cayley, Duckworth, and R. Liveing to act as a committee.

Dr. R. Crocker exhibited a case of general warty growth in a boy.

On Rheumatoid Arthritis, from a Clinical Point of View.

Dr. W. M. Ord read a paper on this subject, which was intended to draw attention to certain causal relations of one of the conditions included under the term "rheumatoid arthritis," and to suggest a modification in the classification of arthritis. Thirty-three cases of that form of rheumatoid arthritis, which has been called by Haygarth "nodosity of the joints," and by Heberden "digitorum nodi," were analysed. All had occurred in women, and in all disturbance of the menstrual function, or disorders involving hyperæmia

of the uterus and its appendages, were present. By the term "nodosity of the joints" was understood a symmetrical affection of many joints, chiefly of the hands, the affected joints becoming enlarged at their periphery, becoming loosened by loss of surface, and ultimately much distorted, the smaller joints being first affected, and extension taking place in a symmetrically progressive way from these to the larger joints. The subjects belonged in large proportion to the middle classes, and were mostly between thirty and forty years of age. Several of them were distinctly passing through the climacteric period of life. Although many were anæmic, amenorrhœa did not exist in any. Dysmenorrhœa was noted in fourteen; half of them had also menorrhagia. Of the remainder several had menorrhagia simply, four had it in conjunction with ovaritis, and others in conjunction with the change of life or with tumours. The relation of the arthritis brought out by the cases was, first, its commencement in coincidence with menstrual disturbance; second, its paroxysmal exacerbation during, before, or after menstrual periods; third, its cessation as an active or progressive mischief on the cessation of the menstrual disorder; fourth, its alternation with cerebral disturbance of an hysterical kind. Some cases were more fully detailed:—1. A case in which intense arthritic affection of the upper extremities was noted, in conjunction with severe dysmenorrhœa and menorrhagia, where, constitutional treatment and the measures usually applied to the control of the rheumatic progress having failed, the uterine conditions were treated successfully, with the result that the arthritis, as an active process, ceased, leaving, of course, the nodosity, but a painless nodosity. 2. Two cases in which the arthritis began at the climacteric period in combination with painless menorrhagia, and ceased as an active process on the final disappearance of the catamenia. In one the first attack occurred at a time when the catamenia, having been absent a whole year, returned in unusual excess; where the joints lost all inflammation and pain during the subsequent interval, but became severely inflamed, greatly swollen, and painful during several subsequent menorrhagic periods. 3. A case in which a woman suffering from poly-articular arthritis at the climacteric period, the arthritis undergoing little remission in the intervals between the menstrual flow, developed somewhat suddenly hysterical mania. On the establishment of the mania the arthritis became perfectly quiescent, and remained so till the restoration of sanity. Sanity having returned, the arthritis resumed its progress. In this instance the excitement propagated from the uterine organs, instead of undergoing reflexion from the cord, was, as it were, refracted through the cord to the higher centres. The arguments founded upon these cases were—first, that there was good evidence to show the connexion of this form of poly-articular arthritis with the uterine hyperæmia. It was argued, further, that the incitation to the arthritis was conveyed by the nervous system in a reflex way. In support of this view it was advanced that certain lesions of the central nervous system were known to be capable of producing trophic changes in joints, in certain cases identical with those of chronic rheumatoid arthritis; that urinary paraplegia was an evidence of the possibility that paralysing influence might be reflected; that, therefore, it was reasonable to suppose that trophic influence should be reflected; and that the mode of association of the arthritis and the uterine disorder favoured the idea of a nervous nexus, and the idea of this consisting in reflex action through the cord. The gonorrhœal and urethral arthrites of men were compared with the affections under consideration, and it was pointed out that the parts concerned with two cases were homologous parts. It was lastly argued that the local morbid process present in these cases was the same as that existing in mon-articular arthritis, in traumatic and other surgical arthritis, in gonorrhœal and articular arthritis, in joints affected by morbid deposits and morbid growths in certain cases after true rheumatism, and in all cases coming under the head of rheumatoid arthritis; and that the term "rheumatoid arthritis" insufficiently covered the variety of clinical aspects of the joint-affection; that therefore it was desirable to limit or annul the use of the word "rheumatoid," and apply before the word "arthritis" some qualifying term descriptive in each case of the supposed clinical association. Ricord's term "blenorrhagic arthritis," as opposed to the term "urethral rheumatism," was quoted as an instance of such application.

Mr. Barwell did not understand, from the description of Dr. Ord's cases, whether the disease described was the typical arthritis deformans, attended with all its very marked pathological changes. In his experience, this was a disease quite as prevalent in men as in women, and its origin could very frequently be traced to a blow or other injury. Exacerbation of the disease at the menstrual period should not, he thought, be considered indicative of a special connexion between the uterine condition and the diseased state. Such changes were commonly met with in almost all chronic diseases.

Dr. Glover thought Dr. Ord's paper would prove a valuable contribution to our knowledge of this ill-defined disease. He regretted that the author had not traced the diathetic state. No mention had been made of histories of gouty or rheumatic tendencies. In his opinion, quinine was a most valuable agent in the treatment of these cases.

Dr. Mahomed considered it a distinctly hereditary disease—as much so as gout or rheumatism. For himself, he was inclined to lay great stress on the presence of a high-pressure pulse as a distinguishing feature between rheumatoid arthritis and chronic rheumatism. In the latter, a soft pulse was quite as typical a feature; while in gout, the high-pressure pulse was always present.

Mr. Bryant would also ask Dr. Ord whether, in his cases, there were all the characteristic changes Mr. Barwell had alluded to, so distinctive of this disease, which he preferred to call osteo-arthritis. Several of the cases seemed to him rather allied to gout, while osteo-arthritis differed essentially from that as from rheumatism. His experience agreed with that of Mr. Barwell in that the majority of the cases he had witnessed had been in men, and, where women had been affected, he did not recognise uterine disorders as causative factors.

Dr. Greenfield remarked that his own experience strongly confirmed Dr. Ord's, in that he believed a disturbance of the uterine organs to be a frequent cause of rheumatoid arthritis. Perhaps no two observers would agree as to what cases should be included under the term. He regarded chronic osteo-arthritis as a distinct affection. The disease in question was a symmetrical affection of the hands or feet, beginning at the index side and passing inwards; and he could bring forward cases supporting the opinion that it was associated with leucorrhœa and other uterine troubles; or in men with urethral irritation, with spermatorrhœa, and similar affections, an exacerbation of which coincided with that of the condition of the joint. With reference to the pathology of the affection, he could not quite agree with Dr. Ord's neuropathic theory, but rather inclined to class these cases with the results of absorption of septic material from the urethra or genital tracts; in fact, that there was some link between them and gonorrhœal rheumatism. In the treatment of these cases actæa racemosa was, in his experience, useless, while local treatment directed to the uterine disorder was most beneficial.

Dr. Duckworth took for granted that these cases of Dr. Ord's were genuine cases of osteo-arthritis; to the pathology of which his paper was a valuable contribution. In his opinion, there was nothing to support the idea that it was a hereditary disease. Overwork and underfeeding were important elements in its causation, and though he had seen the disease in young people, it was common in women about the climacteric period, particularly in those whose business was in the laundry. He alluded to the characteristic adduction of the fingers.

Dr. Ord, in reply, remarked that two of his critics had looked at his case, surgically, while those who had supported his views were physicians; he admitted the difficulty of a definition of the disease, the essentials of which were: a waste of the cartilage and bone of the joint-surface, and a hypertrophy of the periosteum and cartilage round the joint; there being no co-existing affection of tendons, but swelling and looseness of the joint, and a liability to displacement of it. The original describers of the disease varied in their descriptions: Haygarth had described it as occurring in women, and affecting many joints; Adams, as more common in men, and confined to single joints; Trousseau appeared to agree with Haygarth, Folin and Duplay with Adams. In his cases, diathesis in its usual sense had little to do with the disease; he altogether objected to its being considered hereditary, nor could the meaning of arterial tension in these cases, or its worth as a diagnostic point, be deter-

mined. To prove the absence of gout was difficult, but he had ascertained in every case the absence of uric deposits. He allowed that he could not prove the neurotic origin of his cases, but he believed that as yet there was no evidence of their septic origin. His position was this: there being great reason to believe that certain diseases of the spinal cord could cause disease of joint almost, if not wholly, identical with this, why should not such a disease be producible by reflex effect as well as by direct influence? Charcot and German writers seemed for the most part to consider the disease, not as a reflex but as a direct result of some affection of the cord.

Complete Obstruction of the Intestine by Fibrinous Exudation.

Dr. Markham Skerritt (of Clifton) exhibited a specimen from a patient who had come under his care at the Bristol General Hospital. A young man, aged nineteen, previously in good health, on May 11 last felt slight abdominal pain and was afterwards very sick; there were no febrile symptoms. Next day he suffered from vomiting and diarrhœa. After this vomiting continued, but there was no action of the bowels. On admission, a week after the onset of the attack, there were practically no acute symptoms, except frequent bilious vomiting. The skin was cool, the pulse 80°, large, regular, and rather soft, the tongue almost clean, the abdomen moderately distended, and almost free from pain and tenderness. An enema of three pints was given without difficulty, but with no result. Opium and hot fomentations were ordered. Next day some dulness in the flanks, changing with the patient's position, was noted. On the following day the patient sank rapidly and died. The temperature throughout was subnormal. At the post-mortem examination, the ileum, about a foot above the valve, was found to dip down into the pelvis so as to form a loop, which was much contracted, intensely inflamed on its peritoneal surface, solid to the feel, much like a firm umbilical cord; and its canal was here completely blocked by a solid fibrinous cast, four inches long, firmly attached to the mucous membrane, and tailing off at either end as a ragged coating of a part only of the inner wall of the intestine. This loop of gut bounded anteriorly an irregular cavity containing fæces and partially lined with false membrane, into which the vermiform appendix was found to open. No foreign body was discovered. There was no fluid in the peritoneal cavity. The two points raised by Dr. Markham Skerritt in commenting on this case were—(1) the pathological condition, and (2) the data for diagnosis. Inflammation marked by the formation of a fibrinous false membrane was met with in the intestine in various conditions; but no other case had been found on record in which the intestine was completely plugged with the exudation. It was probable that such a condition could occur only where the inflammation was so intense as to cause stasis of the fæces, for otherwise the movements of the intestinal walls, and the flow of fæces, would interfere with the continued deposit of the exudation; and hence in dysentery, where diarrhœa was marked, no very thick layer of false membrane was found. In this case, probably, ulceration of the vermiform appendix occurred first, followed by its perforation and extension of inflammation throughout the small intestine—slight at first, corresponding with the period of diarrhœa; and then more intense, causing cessation of peristaltic action, and consequent constipation. The inflammation took on the croupous type, and complete blocking of the intestine was the result. The absence of fluid from the peritoneal cavity was worthy of note; and the physical signs might be explained on the theory that each individual coil of intestine in contact with the flanks presented to the percussing fingers, in one position, a greater quantity of fæces, in another, a large proportion of gas. As to the data for prognosis, the sudden onset of symptoms was in favour of the presence of one of the causes of acute intestinal obstruction. But the preliminary diarrhœa which preceded constipation accorded only with the history of enteritis simply, in which a mild inflammation accompanied by diarrhœa was succeeded by a more severe implication of the gut, causing cessation of peristaltic action and consequent constipation. But beyond this there was practically no positive evidence of enteritis, except bilious vomiting; all the other ordinary acute symptoms of this condition were absent. Notwithstanding this, a diagnosis of simple enteritis was made, founded upon an experience in which it had been the exception for acute abdominal inflammations to be accompanied by urgent symptoms. And yet this latency of symptoms was held to be of some positive value in diagnosis, as indicating the absence of any suddenly induced mechanical cause of obstruction, relievable, it might be, by timely operation. The following conclusions were derived from an experience which probably had been somewhat exceptional:—First, that an entire absence of acute symptoms might co-exist with an intense local inflammation of the abdomen. Secondly, that if in a case of apparent intestinal obstruction urgent symptoms were in abeyance, it was in favour of the view that the condition was either non-acute, or, if acute, was not to be relieved by operation.

Recovery after Operation for Relief of Acute Intestinal Obstruction by the establishment of a False Anus in the Linea Alba.

Mr. Howard Marsh read a paper describing a case of acute intestinal obstruction in which the abdomen was opened, a stricture of the sigmoid flexure found, and a false anus established in the linea alba, the patient recovering. A woman of forty had, on her admission into St. Bartholomew's Hospital, under Dr. Marsh, on October 15, been suffering from acute intestinal obstruction, with frequent sickness and abdominal distension for eight days. She had previously considered herself well, and had experienced no trouble in the action of her bowels. No hernia, intussusception, or other causes of obstruction could be detected. The colon, which was distended, could be traced through the umbilical and left lumbar regions. The patient on her admission was found to be in a very exhausted condition, with a feeble pulse of 120, and a relaxed and clammy skin. During a consultation on the case, some of the hospital staff advised that, since the colon could be felt to be distended, colotomy should be performed. Others, believing that the sudden manner in which the symptoms of acute obstruction had come on in a person who had apparently been previously healthy, indicated some form of internal strangulation, which if unrelieved might lead to gangrene of the intestine, recommended that the abdominal cavity should be explored. The latter operation was at once performed. An incision was made below the umbilicus in the linea alba, and the intestine—starting with the coil which presented in the wound—was traced towards the left iliac fossæ, each successive piece of the gut being returned as soon as it had been examined, and before another loop was drawn out. While this was being done a stricture of malignant character was detected in the middle of the sigmoid flexure. The intestine just above the stricture was fastened by numerous closely placed sutures to the wound in the linea alba, and a false anus was established in this situation. The operation was found to be very easy, and was speedily completed. The patient made a good recovery, and left the hospital at the end of about two months. In his remarks Mr. Marsh very strongly insisted on the importance of operating in cases of abdominal obstruction—where the diagnosis can be established—before peritonitis and other local changes have ensued. He alluded to the large percentage of cases of ovariotomy in which the abdominal cavity is safely opened; and asked whether it could be more dangerous to open the abdomen, and divide a constricting band, or release an internal strangulation, than it was to remove a large tumour, which was, perhaps, extensively adherent to the omentum, the intestines, or the uterus? He believed a great future was in store for the surgical treatment of intestinal obstruction; and that the operation, if performed early, and with due care, and in cases in which a clear diagnosis could be made, would prove at least as successful as ovariotomy.

Mr. Bryant had not quite understood how far the symptoms were those of acute rather than of chronic stoppage; but he believed that from the history he should have been inclined to advocate colotomy, though it was always difficult to judge of this without being in presence of the patient. He entirely endorsed Mr. Marsh's observation as to the desirability of early operations in these cases.

Mr. Barwell thought that he also would have voted in favour of colotomy, which would have involved less risk than the operation performed, on the successful result of which he congratulated Mr. Marsh. He, like Mr. Bryant, was strongly in favour of an early operation.

Mr. Gould asked Mr. Marsh whether he thought it would have been profitable to have removed the intestine, having regard to its limited extent.

Mr. MARSH replied that the reason the abdomen was opened was, firstly, that the symptoms were acute; secondly, that no history of previous trouble could be obtained; thirdly, that the nature of the obstruction was obscure. He allowed that he himself had inclined towards colotomy, though there had been no symptoms of malignant stricture. The anterior position of the artificial anus was, he thought, an advantage rather than the opposite. It was more manageable and more easily attended to by the patient. He had not considered it advisable, seeing the exhausted state of the patient, to expose her to the risk of prolonging the operation by removing the diseased intestine by Billroth's method, though in a suitable case he should undoubtedly do so.

THE PATHOLOGICAL SOCIETY.

TUESDAY, FEBRUARY 18.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

SECTIONS OF THE SKIN IN LEPROSY.

THE report of the Morbid Growths Committee on Dr. Hoggan's sections of the skin in leprosy, formerly exhibited, was read by Dr. Goodhart. The report stated that most of the changes described by Dr. Hoggan were well seen in the preparations. The lymphatics were abundant, and of larger calibre than normal. There was a marked increase of cell elements in the cutis and subjacent tissues. No micrococci were seen.

HYPERTROPHIC CIRRHOSIS OF THE LIVER.

Dr. SAUNDBY (of Birmingham) communicated (through Dr. Greenfield) a paper with a series of drawings illustrating the morbid anatomy of hypertrophic cirrhosis of the liver. Attempts have been made for many years, by various French pathologists, to assign distinctive clinical and pathological features to this form of cirrhosis, in which, with the increase of the fibrous tissue, there is enlargement of the organ. Of late, MM. Charcot and Gombault have endeavoured to show that the multiplication of biliary canaliculi, observed originally by Cornil in acute atrophy of the liver, and afterwards in hypertrophic cirrhosis, is the distinctive pathological feature. They accept Hanot's description of the clinical features of the disease ("Étude sur une forme de Cirrhose hypertrophique du Foie," Paris, 1875)—namely, chronic jaundice, enlargement of the liver, and absence of ascites—and they explain the multiplication of the biliary canaliculi as resulting from a morbid process commencing in the ducts themselves, and causing obstruction to the outflow of bile. They had found similar anatomical changes in the livers of guinea-pigs, after ligature of the common bile-duct. Dr. Saundby opposed this view that there was a definite connexion between hypertrophic cirrhosis and the multiplication of the biliary canaliculi. He showed drawings of the microscopical appearances of a liver taken from a patient who during life had presented the three cardinal clinical features of Hanot's disease, but in which the increase in the number or calibre of the biliary canaliculi was found to be very slight. On the other hand, he had found these microscopic changes in a few cases, which presented, however, quite a different clinical history from that of hypertrophic cirrhosis. He showed drawings from a liver which had undergone alcoholic cirrhosis, and from the cirrhotic liver of a tuberculous patient, with miliary granulations on its surface, in both of which the anatomical appearances in question were well shown. Dr. Saundby explained that the drawings and specimens had been entered for presentation to the Society about nine months ago, but that he had the less regret at the delay, inasmuch as objections similar to those of his own against M. Charcot's views on this point had been raised by Dr. Ludwig Brieger in *Virchow's Archiv* for January of the present year.

Dr. SAMUEL WEST referred to two cases which he had published in the *St. Bartholomew's Hospital Reports*, in which there were found multiplication and enlargement of the biliary canaliculi. The one case was that of a girl six years old, who during life was supposed to be suffering from acute yellow atrophy of the liver. The microscopic appearances of the liver after death corresponded exactly with those described by Charcot as characteristic of hypertrophic cirrhosis. In the second case, an epithelioma tous growth was the source of the irritation, which had travelled along the larger ducts and affected the biliary canaliculi. In the latter case the changes in the biliary channels were apparent only after careful microscopic examination.

PERFORATING ULCER OF INTESTINE AFTER OVARIOTOMY.

Mr. A. DORAN exhibited this specimen, taken from the body of a woman twenty-six years of age. Last autumn she had been seized with rigors and severe pain in the abdomen, and was seen by a homœopath, who diagnosed typhoid fever; but another practitioner having been called in, found a large fluctuating tumour in the lower part of the abdomen. The patient then came under the notice of Mr. Spencer Wells and Dr. Bantock, who diagnosed a multilocular left ovarian cyst. Her illness five weeks previously had been an intercurrent attack of peritonitis. The patient having been admitted into the Samaritan Hospital, ovariotomy was performed by Dr. Bantock on December 4. The cyst was found to be large, multilocular, and suppurating, and was firmly adherent behind to five or six inches of the lower part of the ileum. The adhesion was carefully broken down by sponges, and a few small vessels on the freed surface of the intestine were tied. As the right ovary presented incipient cystic changes, it also was removed. The patient did well for a few days, and though the temperature rose to 102° on the sixth day, she improved again. But on the ninth day she was seized with intense pain in the abdomen, and with symptoms of collapse; the temperature rose rapidly, and patient died in a few hours. Post-mortem the abdominal cavity was found to contain a large quantity of liquid fæces. A coil of the ileum was observed to be slightly adherent by recent lymph to the abdominal wall, and when this was raised, liquid fæces rushed out of a perforation in the bowel above. The coils of the ileum below, having been matted together by the lymph thrown out on the raw surfaces where the ovarian tumour had been adherent, had been in a condition of partial obstruction. This portion of the bowel was situated over the promontory of the sacrum, and was narrowed and empty. Just above this, a coil of intestine, being distended by flatus, had risen upwards, thus producing a sharp twist in the gut, and rendering the already partial obstruction more complete. The seat of perforation was about a foot above this twist. The perforated portion and the intestine above were full of flatus and liquid fæces, and the whole length of the mucous membrane from the seat of obstruction up to the stomach was deeply injected, the tracts of inflammation being along the (transverse) direction of the larger vessels and along the valvulæ conniventes, with small elongated ulcers in the middle of the inflamed streaks. The perforation was almost circular, with no thickening of its edges. There was no trace of any disease of Peyer's patches, and the mucous membrane below the twist showed no signs of inflammation. Mr. Doran reminded the Society of a case of perforation after obstruction, which Mr. Morrant Baker had communicated a few years ago. In that case, however, the perforation had taken place only thirty hours after the operation for strangulated hernia, and there were found distinct sloughs in the bowel. Mr. Spencer Wells, in his work "On Diseases of the Ovaries," also refers to a case following ovariotomy. The patient died after symptoms of obstruction, and small perforations were found in a portion of intestine attached to the internal aspect of the abdominal wound. Mr. Doran considered his own specimen to have been the seat of simple inflammation, aggravated by the severe mechanical complications which had arisen in connexion with the ovarian tumour and after the operation for its removal.

Mr. HOWSE expressed surprise that such accidents were not more common after ovariotomy. A similar case had come under his own notice. A young woman presented herself at Guy's Hospital, with a history pointing to an attack of peritonitis twelve months before. He found a fluctuating swelling in the abdomen, and, at her request, performed ovariotomy, removing a large multilocular cyst from the left side, and a smaller cyst from the right side. There were no intestinal adhesions. Some days after, incontrollable vomiting began, the bowels being constipated. General peritonitis was suspected, but at the post-mortem examination a coil of intestine was found to be abruptly bent on itself about nine inches above the ileo-cæcal valve, and in a sloughing condition. The coil was also adherent

to the adjacent viscera, this adhesion doubtless dating back to the peritonitic attack twelve months previously. The disturbance of the parts by the operation had rendered the obstruction complete, and thus brought about the fatal result.

Dr. Goodhart thought that the mode of production of such ulcers above the seat of constriction was a question of great interest. Some might be due to the mere distension of the occluded gut, in which extreme congestion had been followed by necrosis; but he thought that another cause may often explain the ulceration—viz., the blocking up of the vessels of the mesentery. He had seen two cases illustrative of this last condition. The first was a case of umbilical hernia in which the mesenteric vessels were found to be plugged, and the intestine above was in a sloughing condition. In the second case, one of tubercular peritonitis, constriction of the gut with its mesenteric vessels had been produced by their being twisted over a band of omentum adherent to the lower part of the abdomen. A perforating ulcer was found situated at some short distance above the constriction, but in a portion of bowel probably deriving its blood-supply from the occluded vessels.

Mr. Morrant Baker thought it was rather surprising that these perforations were not more common after operations for strangulated hernia as well as after ovariotomy. In the case he had reported he found, post-mortem, no great evidence of severe constriction of the gut. He had formed the opinion that there had previously existed a simple ulcer above the seat of strangulation, which, under the unusual circumstances, had given rise to the perforation; and some other cases of perforation might be explained in this way.

Dr. Bantock remarked that there were no grounds for supposing there had been typhoid fever in the case reported by Mr. Doran. The condition of the patient after the operation (sickness, some vomiting, with moderate temperature) led him to suspect gastro-enteric catarrh; but on the day before her death he had looked on the case as proceeding favourably. At the necropsy the whole length of intestine above the constriction was so soft as to give way like a piece of wet brown paper. He had found that some degree of obstruction of the bowel was not uncommon after ovariotomy, from the development of adhesions; but perforation was exceedingly rare. This was the first death he had had from ovariotomy after eighteen successful cases.

Dr. Ewart had seen a case of death from perforation after obstruction caused by an adhesion at the left bend of the colon. In the walls of the cæcum, which was greatly distended, there were several ulcers. He had also seen a case where a large mesenteric vessel was occluded by a thrombus. This had led, not to ulceration and perforation, but to complete gangrene of more than a foot of the intestine.

Mr. Doran, in reply, thought the original cause of the ulceration in the case he had reported was probably malnutrition, just as ulcers of the cornea were produced in unhealthy children.

Specimens of Elephantiasis Arabum, Simple and Nævoid.

Sir Joseph Fayrer showed two specimens illustrating these conditions. There was also exhibited a series of microscopical sections, prepared by Mr. D'Arcy Power, from the two tumours, which had been sent to Sir Joseph by Professor Bower Partridge, of Calcutta. The first specimen was a typical example of lymph-scrotum, which had been removed by Partridge from a Hindoo aged twenty-five. The tumour was of three years' growth, during which period there had been irregular attacks of fever, with a copious discharge of milky or sero-sanguinolent fluid from the tumour. The patient had now and then somewhat relieved his condition by pinching off a piece of the distended integument with his nail, thus effecting a kind of tapping. The second tumour was a specimen of the ordinary form of elephantiasis, and had been removed, after two years' growth, from a Brahmin aged thirty. Both operations were performed by the bloodless method. In the lymphoid case the fluid discharged had been examined on one occasion for filariæ, but none were detected. The speaker remarked that these were good, though small, specimens of the two kinds of elephantiasis so common in India, especially in Bengal, and along malarial sea-coasts. In regard to the etiology of elephantiasis, a new light had been thrown on the subject by the recent researches of Bancroft, Lewis, and Manson, which seemed to show that the affection was associated with the presence of a hæmatozoon, the filaria sanguinis hominis. This parasite had been previously detected in chylous urine; but in 1872 Lewis discovered it in the blood of patients suffering from chyluria, elephantiasis, and other tropical diseases; and Manson had found reason to believe that the mosquito acts as the intermediate host for the entozoon. The microscopical appearances of the larger (the second) tumour were as follows:—Epidermis not much altered, but not differentiated from the rete; rete thick, with well-defined cells; the pigment strongly marked; the subcutaneous connective tissue greatly thickened, consisting chiefly of areolar tissue with some elastic fibres intermixed, and containing also much unstriped muscular tissue; numerous nuclei visible; the tissue as a whole was very firm and compact; the hair-follicles and sebaceous glands were normal; the sweat-glands enlarged and more convoluted than normal; blood-vessels numerous and large; the lymph-channels more numerous and more dilated and tortuous than normal. The appearances in the sections of the lymphoid (the first) tumour were the following:—Epidermis not changed; rete somewhat thickened; pigment normal; the subcutaneous tissue greatly hypertrophied, composed mainly of areolar or white fibrous tissue with a few elastic fibres; in some sections an increased amount of unstriped muscular tissue; lymphoid tissue greatly increased in many sections; fat present in considerable quantity; hair-follicles enlarged, many of the root-sheaths being thickened; sebaceous glands greatly hypertrophied and filled with lymphoid tissue; sweat glands enlarged and much more convoluted than normal; blood-vessels and lymph-channels larger than normal. Numerous small, refracting, angular bodies were seen in several of the sections, especially in those from the larger tumour. The nature of these bodies had not been made out. The sections had been carefully examined for filariæ, Dr. Cobbold having given his assistance, but no certain result had been attained. It was possible, however, that these nuclear bodies might be sections of filariæ. Examined closely, they did not correspond to any of the cell-forms found in this situation, but were seen to be semicircular, not unlike segments of a blood corpuscle, and of about the same diameter. They were enclosed in an apparently structureless sheath as seen in transverse sections. These bodies took on staining readily and deeply. The speaker concluded by asking that his specimens might be referred to the Committee on Morbid Growths for further examination.

Dr. Tilbury Fox said that several cases of elephantiasis had come under his notice, the subjects of which had never been out of this country. One was a very well marked case, presenting a varicose condition of the lymphatics, with the oozing of a lymphoid fluid from the surface. In none of the secretions, however, nor in the tissues after death, had filariæ ever been detected, though microscopical examinations had been made carefully and repeatedly. He thought that the evidence in favour of the causal connexion between filariæ and elephantiasis was altogether very weak. No filariæ had been found in cases in which chylous urine, or the discharge of chylous fluid from the skin, was not a prominent feature, and, on the other hand, filariæ had been found in many other persons than those suffering from elephantiasis arabum. He believed they had been constantly found in connexion with these peculiar nodular swellings often found in the arm-pits. He thought the causal connexion of filariæ was not with elephantiasis, but with chyluria or chyloderma; and he mentioned that Dr. Druitt agreed with him as to the etiology of elephantiasis. The microscopical appearances of his own case did not differ from those found characterising the disease as developed in India or other countries.

Sir Joseph Fayrer, in reply, said that the cases which Dr. Fox had referred to would not be regarded as elephantiasis at all by Indian medical men. Though the causal connexion between filariæ and elephantiasis was not completely established, he thought that their association had been discovered in so many instances that we could not ignore a fact of so great interest and importance. Possibly there might be discovered other causes for elephantiasis and the allied conditions, and the filaria theory might undergo many modifications and limitations, but there could be no doubt that the greatest credit was due to the researches that had been so ably conducted by our *confrères* in distant

countries, far removed from the many advantages and accessories enjoyed by scientific workers at home.

SPECIMENS OF BLOOD-CYST AND MUCUS-CYST.

Mr. GAY exhibited these specimens. The blood-cyst had been removed from the left side of the neck of a man of twenty-five, and had been observed for five or six years. It had been tapped twice, giving exit to pure blood, and rapidly refilling after each evacuation, before Mr. Gay resolved on its extirpation. It was covered by the sterno-mastoid, and lay behind the carotid artery on the vertebræ. There was no pulsation in the cyst, but though it had been emptied of its blood when the operation was begun, it had refilled before its removal. The cyst proper was found to be encapsuled, the upper part of the capsule being adherent to the base of the skull. The cyst easily shelled out when the capsule was opened. The other specimen, the mucus-cyst, he had removed from the subcutaneous tissue lying on the external lateral ligament of the knee-joint of a gouty man aged forty-five. The cyst contained no gouty deposits, but only tenacious mucus. The contents of the cyst were certainly not synovial fluid. In connexion with the blood-cyst, Mr. Gay remarked on the want of precision in the present nomenclature of blood-tumours, many quite different forms being grouped together in confusion. Some, such as nævoid tumours, are formed of convoluted vessels, and not of free blood; in others, as hæmatocele, the contents are at first serous, becoming sanguineous only as the result of accidental injury; others, such as the specimen exhibited, contained pure blood from the first, which exuded from a very vascular lining membrane. It was only this last class that could properly be termed blood-cysts. Some of these he thought it might be a serious matter to remove. They might be treated by the injection of a hæmostatic.

The PRESIDENT remarked on the rarity and interesting character of the blood-cyst exhibited.

RECENT SPECIMEN OF A SCAPULA WITH TUMOUR.

Mr. C. HEATH showed this specimen, which he had removed from a young man a few days before. The patient had first come under his notice in 1875 with a tumour near the left shoulder-joint. In 1877 there was found a large flat tumour in front of the joint. This tumour he then removed. It was found to be fibrous in structure, and was firmly connected with the tip of the coracoid process, part of which had to be removed with the growth. It had replaced the pectoral muscle. The patient returned a week ago, presenting a large mass in the posterior triangle of the neck, a mass in the axilla, and a smaller mass over the coracoid in front. He decided on excising the scapula with the adherent growth, without removing the arm. The patient died thirty-six hours after the operation. At the necropsy, no secondary deposits were discovered in any part of the body. The tumour was found to be very hard and dense, and firmly adherent to the scapula. It had replaced the supra-spinatus and sub-scapularis muscles, and also involved the teres and latissimus dorsi, but the infra-spinatus had escaped. The speaker had not yet been able to decide whether the tumour arose from the periosteum. On microscopic examination it was found to consist of fibrous tissue with a few spindle-cells, so that it might be called a recurrent fibroid. It was referred to the Morbid Growths Committee for further examination.

Mr. JOHN WOOD observed that the tumour closely resembled one which he had removed from a patient. He had first considered it of a fibrous nature, but it turned out to be cancerous, reappearing and killing the patient.

LIVING SPECIMEN OF MOLLUSCUM FIBROSUM.

Mr. ROYES BELL exhibited this patient, who had recently come under the care of Mr. Wood at King's College Hospital. He was forty-three years of age, and his family history was good; his parents were not blood-relations. He seemed quite healthy when born; but when three weeks old the left upper eyelid began to thicken and soon covered the eyeball. Its outer part now hung down in a pendulous fold, quite occluding that eye, the vision of which, however, remained intact. The outer part of the lower eyelid, and the skin of the upper half of the cheek, were also hypertrophied. The growth was quite soft, and often twitched. Two unsuccessful attempts to improve the deformity by operative means had been made, the first at the age of four, and the second at fourteen. The whole posterior aspect of the left thigh and leg also presented large masses of hypertrophied tissue, hanging down in festoons, which increased in size after standing for some short time. These masses were quite soft, freely movable, and seemed to contain thickened areolar tissue with blood-vessels. The skin over them is coarse, the orifices of the sweat-ducts being easily recognisable, though not increased in number. The patient had to pay strict attention to cleanliness, as the natural secretions soon caused great uneasiness. The growth in the thigh began when the patient was three years old, and the lower part of the limb had became gradually involved. Over the trunk and scalp, especially on the back, were found numerous scattered nodular masses, about the size of cherries, and of much firmer consistence than the large pendulous growths. Some of these masses removed from the scalp some time ago had not returned. Mr. Wood proposed to remove the pendulous masses of the eyelid and leg. Mr. George Pollock had recorded a similar case in which he had operated with success.

The PRESIDENT asked whether the case was not rather one of pendulous hypertrophy of the skin than of true molluscum fibrosum.

Mr. WOOD said he had at first considered it a case of skin hypertrophy, but the existence of the many nodular tumours over the back and other parts of the body had made him change his opinion.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Board of Examiners on the 24th ult., the following gentlemen, having undergone the necessary examinations, were admitted Licentiates in Dental Surgery of the Royal College of Surgeons, viz.:—

Drinan, Andrew, Dublin.
Councell, Edward Arthur, Bristol.
Rook, Eustace Henry, Thaxted, Essex.
Reeve, Walter, Putney.
Hayman, Samuel John, Bristol.
Dewes, Hugh William, Ashby-de-la-Zouch.

Four candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their professional studies. The following were the questions on Anatomy and Physiology, and on Pathology and Surgery, submitted to the candidates on this occasion, and who were required to answer, from two to four o'clock, at least one of the two questions both on Anatomy and Physiology, and on Pathology and Surgery:—Anatomy and Physiology: 1. Describe the course of the aorta through the abdomen, mentioning its relations, and enumerating, in order, the branches it gives off in that region. 2. What are the constituents of the atmosphere, and their relative proportions? Describe the changes which occur in respired air.—Pathology and Surgery: 1. State what are the signs and the immediate consequences of fracture of a long bone; and mention the principles upon which the treatment of such an injury is to be conducted. 2. Define what you mean by an ulcer. Mention in what respects the discharge from an ulcerated surface varies under different circumstances, and explain to what causes such variation is due. The following were the questions on Dental Anatomy and Physiology, and on Dental Surgery and Pathology, which the candidates had, from five to eight o'clock, to answer, when two at least out of the three questions, both on Dental Anatomy and Physiology, and on Dental Surgery and Pathology, were required of them, viz.:—Dental Anatomy and Physiology: 1. Describe specimens 1, 2, and 3 under the microscope. 2. Why are teeth called "dermal appendages"? Give an example, taken from comparative anatomy, of the meaning of the term. 3. Describe how the movements of mastication are effected, and the physiological action of the saliva. Dental Surgery and Pathology: 1. Describe the various methods of applying artificial teeth, and mention the important surgical and mechanical points to be regarded. 2. Enumerate the abnormal conditions of the dental organs which may give rise to neuralgia. 3. What are the chief causes of inflammation of the peridental membrane? Describe the formation and progress of an alveolar abscess.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 20:—

Crallan, George Edward James, West Riding Asylum, Wakefield.
Marsden, James Cort, Bangalore, Madras.
Osborne, James, Southwell, Nottinghamshire.
Pardington, George Lucas, Holmer Hall, Hereford.
Williams, Edward, Mold, North Wales.

Erratum.—In the pass list of February 13, "Benjamin Rigden" should be "Briam Rigden."

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BENNINGTON, R. C., M.R.C.S., L.R.C.P., L.S.A.—Assistant House-Physician to St. Thomas's Hospital.

CASTLE, H., M.R.C.S., L.S.A.—House-Surgeon to St. Thomas's Hospital.

CULLINGWORTH, CHARLES JAMES, M.R.C.P. Lond.—Lecturer on Medical Jurisprudence at the Owens College School of Medicine, Manchester.

DAVIES, D.S., M.R.C.S., L.S.A.—Assistant House-Surgeon to St. Thomas's Hospital.

HASLAM, W. F., M.R.C.S., L.S.A.—Assistant House-Physician to St. Thomas's Hospital.

SANDWITH, F. M., M.R.C.S., L.R.C.P.—House-Physician to St. Thomas's Hospital.

SMITH, H. U., M.B. Lond., M.R.C.S.—Resident Accoucheur to St. Thomas's Hospital.

TAKAKI, K., M.R.C.S., L.R.C.P.—House-Surgeon to St. Thomas's Hospital.

BIRTHS.

ADAM.—On February 24, at Caterham, Surrey, the wife of James Adam, M.D., Medical Superintendent, Caterham Asylum, of a son.

GEE.—On February 20, at Harley-street, the wife of Samuel Gee, M.D., of a daughter.

HICKS.—On February 21, at Amhurst-road, Hackney, the wife of George Borlase Hicks, L.R.C.P. Edin., of a son.

LYSTER.—On February 20, the wife of C. E. Lyster, M.D., 72, Devonshire-road, Liverpool, of a daughter.

MOUAT.—On February 14, at Camilla Lodge, The Lux, Madras, the wife of George Bridges Mouat, M.D., Surgeon-Major, of a son.

SKIMMING.—On February 24, at Tudor Lodge, East Moulsey, the wife of Robert Skimming, M.D., of a daughter.

SMITH.—On February 19, at Pembridge-villas, Bayswater, the wife of E. Stanley Smith, M.R.C.S., of a daughter.

MARRIAGES.

ALDERSEY—SMILES.—On February 20, at St. Giles-in-the-Fields, Hayden Stephens Aldersey, to Mary, younger daughter of William Smiles, M.D., of 44, Bedford-square.

BRUCE—LEA.—On February 25, at St. Mary's Church, Moseley, John Mitchell Bruce, M.D., F.R.C.P. Lond., to Florence Mary, only daughter of James Green Lea, of Moseley, Worcestershire.

HAMES—CASE.—On February 20, at St. Andrew's, Wells-street, George Henry Hames, F.R.C.S. Eng., of 7, Coburg-place, Kensington-gardens, W., to Emma Mary, third daughter of the late Robert Case, of 27, Inverness-terrace, W.

JACKSON—SMITH.—On February 19, at Putney, Robert Alexander Jackson, L.R.C.P. Lond., M.R.C.S., of 13, Ladbroke-grove, W., to Clara Gertrude, youngest daughter of William Henry Smith, Esq., of 32, The Cedars, Putney.

LEITCH—REDFORD.—On February 18, at Silloth, John Leitch, M.B., C.M., to Catherine Edith, daughter of the Rev. Francis Redford, Rector of Silloth, Cumberland.

MCINTIRE—FRAIN.—On February 19, at Monkwearmouth, Thomas Cleland, second son of John McIntire, of Ryton, to Ellie, second daughter of Joseph Frain, M.D., of South Shields.

DEATHS.

BROWN, ALEXANDER, L.R.C.P. & S. Edin., at Coldstream, on February 21, in his 49th year.

LAYCOCK, MARY, wife of William Laycock, M.R.C.S., at Stonebridge-park, Willesden, on February 19, in her 61st year.

PERRY, JOHN, F.R.C.S., of 46, Gillingham-street, Eccleston-square, at Douglas, Isle of Man, on February 19, in his 76th year.

SHEPPARD, WILLIAM YEOMAN, F.R.C.S., at 4, Tyndall's-park, Clifton, Bristol, on February 18.

WEAVER, JOHN, M.R.C.S. Eng., at King-street, Chester, on February 23, in his 82nd year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

DORSET COUNTY HOSPITAL.—House-Surgeon. Candidates must be unmarried, and must possess a medical and surgical qualification from one or more of the British universities or colleges recognised under the Medical Act, and be duly registered. Testimonials as to moral character, general health, and professional ability, to the Chairman at the Hospital, Dorchester, on or before March 19.

INFIRMARY FOR CONSUMPTION, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Every information may be obtained from the Secretary.

LEEDS GENERAL INFIRMARY.—House-Physician. Candidates must possess a medical degree in a British university, or be members or licentiates of a British College of Physicians. Testimonials to Dr. Heaton, the Infirmary, Leeds, on or before March 19.

LIVERPOOL ROYAL INFIRMARY.—Resident Medical Officer. Candidates must be unmarried, duly registered, and possess at least one medical and one surgical diploma, licence, or degree, recognised by the Medical Council. Applications and testimonials to the Chairman of the Committee on or before March 12.

RIPON DISPENSARY.—Resident House-Surgeon and Dispenser. Applicants must be unmarried. Applications, with testimonials as to professional ability and moral character, to the Honorary Secretaries.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population in computed according to the census of 1871.

RESIGNATIONS.

Abergavenny Union.—Mr. C. B. Ball has resigned the Blaenavon District; area 1188; population 9492; salary £80 per annum.

Bath Union.—Mr. J. Maunsell has resigned the Second District; area 617; population 11,357; salary £43 per annum.

Barton Regis Union. Mr. Thos. J. Colman has resigned the Barton Regis Union; area 2340; population 26,037; salary £40 per annum.

Glanford Brigg Union.—The Winterton District is vacant; area 27,028; population 5610; salary £70 per annum.

Kendal Union.—Dr Lea has resigned the Burton District; area 13,448; population 2604; salary £42 per annum.

Wolverhampton Union.—Mr. F. Dunn has resigned the Second Wolverhampton District; area 1329; population, 21,500; salary £95 per annum.

APPOINTMENTS.

Settle Union.—James W. Edgar, M.D. and C.M. Edin., to the Settle District and the Workhouse.

Warrington Union.—George W. Joseph, L.K. & Q.C.P. Ire., L.S.A., M.R.C.S. Eng., to the First District.

CHAPPED HANDS.—Dr. M. A. Wilson of this city recommends the following:—Carbolic acid gr. xv., the yolk of an egg, and glycerine ʒiij. This does not spoil by keeping. A small portion to be gently smeared over the parts several times a day.—*New York Med. Record*, January 11.

A PIN IN THE VERMIFORM APPENDIX.—Dr. Morill, of Albany, while making the post-mortem of the body of a man aged forty-eight, killed by a railway accident, observed an old cicatrix at the junction of the appendix and cæcum. The appendix measured four inches in length, and on opening it a common-sized pin was found within. Its centre was covered by a fæcal concretion, but the head and point were free. There were no signs of recent inflammation; and the patient had never complained of any local symptoms. —*New York Med. Record*, January 4.

A NEW TREATMENT OF SHOCK.—Dr. Charles Hunter, of the Medical School of the University of Pennsylvania, has lately introduced a new and successful mode of treatment for the great shock following railway injuries, etc. The patient is at once placed in a bath at 98°, its temperature then being rapidly raised to 110°. As is well known, the temperature of patients suffering from shock is as low as 96° in the axilla; but by his mode of treatment Dr. Hunter is enabled to raise it from 96° to 98·5°, and to reduce the number of respirations from 36 to 20. Prior to the bath the skin is cold and clammy; but on taking the patient out of it after ten or fifteen minutes the skin is warm and dry.—*New York Med. Record*, January 11.

PROFESSOR PARKER, F.R.S., will bring his admirable course of lectures on the Evolution of the Vertebrata to a close on Monday next, and will be succeeded by Professor Flower, LL.D., F.R.S., on the 5th inst., who will then commence his course of nine lectures on the Comparative Anatomy of Man, in continuation of those he delivered last year. The following is his programme:—Recapitulation of the best ascertained facts in connexion with the subjects treated of in the last course, including the physical characters and geographical distribution of the Australian, Tasmanian, Melanesian, Papuan, Malay, and Polynesian races, with further illustrations from recent additions to the Museum. The inhabitants of the Andaman Islands, briefly touched upon last year, will next be treated of in detail, as typical examples of the Negrito race, and their osteological characters and relations to other races demonstrated from a series of skeletons and crania lately received. The Mongolian type and its various modifications, illustrated as far as the materials in the Museum permit. Ethnology of Eastern and Southern Asia. The Ainos, a non-Mongolian people of Northern Japan. The Eskimos.

THE annual meeting of the Royal Medical and Chirurgical Society takes place on Saturday, March 1, at 8 p.m.

DEATH OF DR. BENEDICT STILLING.—The death of this eminent German *savant* is announced as having taken place a few days ago at Cassel, where a short time since he had officiated with much distinction as the president of the last meeting of the German physicians and naturalists. An eminent practitioner, he entered upon the most elaborate investigations into the structure of the spinal cord and brain, which have gained for him a widespread reputation. Claude Bernard attached the highest importance to his researches, several of which obtained prizes from the Academy of Sciences. For his important researches on the medulla oblongata and pons Varolii he obtained the Prix Montyon in 1857; and again, in 1861, for his work on the spinal marrow. In 1870 the Prix Barbier was awarded him for his researches on ovariotomy. He has quite recently completed a large work on the anatomy of the cerebellum.—*Union Méd.*, February 22.

EXCISION AND REGENERATION OF THE SCAPULA.—Dr. Mikulioz brought before the Vienna Medical Society a girl, ten years of age, upon whom Prof. Billroth had performed the sub-periosteal excision of the scapula, the bone, at the time of exhibition (three-quarters of a year after the operation), having become almost completely regenerated. An incision having been made parallel to the spine of the scapula, and another perpendicular to this, opening into the shoulder-joint, the bone was easily raised from its periosteal covering, the raspatorium being required at its edges and projecting parts, and the coracoid process and acromion being nipped off. The wound healed by first intention, only two of Lister's dressings being required—the first for six, and the second for eight days. The new scapula is somewhat smaller in all its dimensions, and the acromion is only rudimentary. The arm performs its functions quite well, except that the power of raising it is somewhat defective. The completeness of the movements of the upper arm leads to the conclusion that a new joint has been established. There is only one other case (Linhart's) of complete regeneration of the scapula recorded in medical literature; and it is of much interest, as showing the great reproductive power of the periosteum. In experiments upon animals, the scapula has always shown itself as especially disposed to regeneration.—*Wien. Med. Woch.*, January 11.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Inquirer.—Apply to any good hospital surgeon, and avoid everyone who advertises.

Infectious Diseases and Reading-rooms.—Dr. Watson, the Medical Officer for the Penistone Union, applied to the Barnsley Bench, a short time since, for an order, under the Public Health Act, to summarily close a reading-room in connexion with the Penistone Literary Society. It appeared that there had been forty cases of scarlet and typhoid fever, and six deaths, at Penistone; and there was a case of typhoid fever in the house adjoining the reading-room. The woman who attends to the reading-room also nurses the patients. He had applied to the Secretary to close this room, who had refused to do so, and he therefore made this application to the Bench. The magistrates held that they had no power to close the room unless they had a special resolution from the Board requesting them to do so.

The Gipsy Nuisance.—At the Wandsworth Police-court, two gipsies were summoned last week, by the Local Board of Works, for creating a nuisance by living in tents and vans on a piece of land in Wardley-street. The defendants had been previously charged with the same offence. The Medical Officer of Health said the manner of life of the defendants was dangerous to the neighbourhood, and although an order had previously been made for the abatement of the nuisance complained of, things were in the same condition. The magistrate said it was desirable to remove nuisances, but in the present case the evidence was too vague, and the summonses were consequently dismissed.

Increase of Drunkenness, Ireland.—The Vice-Chairman of the General Prisons Board, Dublin, in his Report on the state of the County and Borough Gaols in Ireland for 1877, just printed, again calls attention to the alarming increase of drunkenness since 1867, when the commitments for that offence to the county and borough gaols numbered 6645, but which in 1877 amounted to 18,837, showing, in comparison with 1876, an increase of 1191. The commitments to bridewells are not included in this number.

Urban and Rural Sanitation.—The Hexham Union Rural Sanitary Authority is actively adopting measures to provide sewerage works for the various villages of the district. A contract has been entered into for works at Prudhoe, and the parochial committees of two other townships have taken steps for the sewerage of their villages. Water-supply works are also in contemplation for several localities within the area of the Sanitary Authority. The St. George's Sanitary Authority, Gloucestershire, proposes to expend £3577 on new drainage works. The Barrow-on-Soar Rural Sanitary Authority is about to expend £3500 for drainage works at Silsby. It is intended to purify the sewage by filtration on eight acres of land. The Derby Urban Sanitary Authority has ordered a complete scheme for the disposal of the sewage of the borough so as to comply with the requirements of the Rivers' Pollution Act. The South Hants Waterworks, which are to supply a large and increasing district, containing 50,000 inhabitants, were opened on the 30th ult. by a public ceremonial in the market-place, Romsey. The mains laid are about thirty miles in extent. The supply is drawn from the chalk at Michelmersh, about five miles from Romsey. The carrying out of the Birmingham Waterworks undertaking, during the past three years, has been very satisfactory. In that period £144,462 has been expended in extending and improving the works, while the revenue had increased at the rate of 15 to 17 per cent., being about double the percentage of the increased outlay. The Metropolitan Board of Works has contributed £2971 towards laying out, as ornamental gardens, the disused burial-grounds of St. Pancras and St. Giles'; and the Board has advanced £2000 to the Guardians of St. Marylebone towards the erection of a new infirmary.

Sanitary Condition of Russia.—The *Journal de St. Petersburgh* publishes a brief summary of the report of the Medical Department of the Ministry of the Interior for 1877, which to some extent discloses the sanitary condition of Russia; moreover, it assists towards explaining the spread of the plague. The country, it will be remembered, is entirely agricultural, there being but two or three great towns in our sense of the word. Yet the mortality for the empire, with its eighty millions of people, averaged 32·5 per 1000—that is to say, was equal to that of the unhealthiest and most crowded cities of other lands. In the province of Perm the death-rate reached 50·7 per 1000, in that of Viatka 45·9, in that of Moscow 43·7. Small-pox, typhus fever, and diphtheria were the most fatal maladies. In several parts of the empire, typhus, in fact, was epidemic and very destructive. The plague, too, had made its appearance in 1877, though Western Europe heard nothing of it.

Excessive Infant Mortality: Darlington.—According to the report of Dr. J. Mackie, Medical Officer of Health of the borough, the proportion of the deaths of children under five years of age is exceedingly heavy. The population of the town is about 30,000. It is stated that in the year 1872, out of a total of 841 deaths in the borough, 404 were those of children under five years of age. In 1873 the total deaths were 659, out of which number 258 were under the same age. In 1874, out of 773 deaths there were no less than 400 under five years. In 1875, out of 826, there were 382; and in 1876, out of 565, there were 243. In 1877 the total mortality was 602, of which 260 was the number under five years of age; and in 1878, out of a total of 594, there were 274 children under that age. There have been 4840 deaths in Darlington in the last seven years, of which children under five years of age formed no less than 2231.

An Economic Dispenser.—At a recent meeting of the Limerick Dispensary Committee, complaint was made by one of the medical officers that the dispensary apothecary had not compounded his prescriptions according to the instructions. In one instance a cough mixture was ordered for an old woman, but the mixture consisted only of treacle and water; all the other ingredients ordered were absent. The apothecary, in explanation, stated that he sometimes gave only half the medicines ordered for the purpose of economy. Latterly there was a great run on drugs, and he heard of persons who fried fish with the cod-liver oil which they got at the dispensary. He was informed that his duties must be performed with more care in future.

BOOKS AND PAMPHLETS RECEIVED—

Chas. W. de Lacy Evans, M.R.C.S.E., Can we Prolong Life?—La Lèpre est Contagieuse par un Missionnaire attaché aux Léproseries—Robert Hunter Semple, M.D., On Diphtheria—Dr. Roth, On the Neglect of Physical Education and Hygiene by Parliament and the Educational Department—Concord! or, Medical Men and Manners of the Nineteenth Century—Thomas Stretch Dowse, M.D., Syphilis of the Brain and Spinal Cord—P. Hinckes Bird, F.R.C.S., On the Ventilation of Rooms, House-Drains, Soil-Pipes, and Sewers—Robert Bentley, F.L.S., and Henry Trimen, M.B., F.L.S., Medicinal Plants, parts xxxii. to xxxvii.—Joseph Wilson, M.D., Naval Hygiene.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wocheaschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Boy's Own Paper—Canadian Journal of Medical Science—Dublin Journal of Medical Science—Giornale Internazionale delle Science Mediche—Guy's Hospital Gazette—New York Medical Record—Gazzetta Medica Italiana—Canada Lancet—Gazeta Medica da Bahia—Sunday at Home—Leisure Hour.

COMMUNICATIONS have been received from –

Mr. W. E. Poole, London; Dr. F. Churchill, London; Mr. John Chatto, London; Dr. J. Pearson Irvine, London; Dr. J. Hughlings-Jackson, London; Mr. Jonathan Hutchinson, London; Dr. J. Matthews Duncan, London; Dr. James Russell, Birmingham; Mr. B. R. Wheatley, London; Mr. D. Colquhoun, London; Mr. T. M. Stone, London; The Secretary of the Army Medical School, Netley; Mr. C. F. Jones, London; Mr. P. G. Kakeeke, Torquay; The Registrar of Apothecaries' Hall, London; Messrs. Arnold and Sons, London; Mr. R. A. Macfie, London; Dr. Robert Lawson, Edinburgh; Mr. Lunnington Ash, Holsworthy; Dr. E. I. Sparks, Mentone; Mr. R. J. Godlee, London; Dr. Wolfe, Glasgow; Mr. Ed. F. Bussy, London; Mr. John Bellamy, London; "Omnia Sanitas"; Dr. Stephen Mackenzie, London: Mr. R. Beudenell Carter, London; Messrs. Lindsay and Blakiston, Philadelphia; The Registrar-General, Edinburgh; Mr. Ed. Lofflund, London; Dr. Gillespie, London; Mr. J. Hamilton Cartwright, London; The Secretary of the Royal Institution; Mr. Geo. Nevis, Sittingbourne; Dr. John Williams, London; The Secretary of the Military Department; Mr. E. L. Hussey, Oxford.

APPOINTMENTS FOR THE WEEK.

March 1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. Reginald W. Macan, "On Leasing."

Royal Medical and Chirurgical Society, 8 p.m. Anniversary Meeting.

3. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London (General Meeting, 7½ p.m.), 8½ p.m. Mr. Thomas Bryant, "On the Value of Operative Interference in the Treatment of Inflammation of Bone."

Odontological Society, 8 p.m. A Discussion will be opened by Mr. C. S. Tomes, "On Transplantation and Replantation of Teeth."

Royal College of Surgeons of England, 3 p.m. Prof. W. K. Parker, "On the Evolution of the Vertebrata."

Royal Institution, 5 p.m. General Monthly Meeting.

4. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Dr. Peacock—Congenital Disease of the Aortic Valves. Dr. Finlay—Congenital Disease of the Heart. Dr. Barlow—Skulls from a Case of Congenital Syphilis. Mr. Amphlett—Solitary Kidney. Mr. Davies-Colley—1. A Peculiar Affection of the Palms and Soles; 2. Malformation and Diseases of the Ureter and Bladder of a Child. Mr. Macarthy—Cancer of the Œsophagus. Dr. Samuel West—Perforation of the Lung in Pneumothorax. Dr. Norman Moore—1. Cancer of the Pericardium; 2. Hepatic Abscess. Mr. Bellamy and Dr. Sangster—Specimen from a Case of Rodent Ulcer of the Face and Nose. Mr. Malcolm Morris—Some Specimens of Piedra. And other Specimens.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

5. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Epidemiological Society, 8½ p.m. Surgeon-General Robert Lawson, "Remarks on the Diagnosis and Causes of Yellow Fever."

Obstetrical Society, 8 p.m. Specimens will be exhibited by Dr Roper and Dr. Galabin. Papers: Dr. Wilson, "Notes on a Deformed Fœtus." Dr. Scholefield, "Difficult Delivery of a Monstrosity." Dr. Roper, "Report of a Case of Fatal Thrombosis of Right Heart, nineteen days after delivery; with Remarks." Mr. Musgrave, "Case of Abortion followed by Septicæmia and Fatal Thrombosis." And other Papers.

Royal College of Surgeons of England, 4 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Harveian Society, 8½ p.m. Dr. Fitzpatrick, "Cases to Illustrate certain Common Characteristics of Chronic Diseases." Dr. Mahomed, "Some forms of Heart Failure from High Pressure."

Royal Institution, 3 p.m. Prof. Tyndall, "On Sound."

7. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Royal College of Surgeons of England, 4 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Prof. Huxley, "On Sensation, and the Uniformity of Plan of Sensiferous Organs."

VITAL STATISTICS OF LONDON.

Week ending Saturday, Feb. 22, 1879.

BIRTHS.

Births of Boys, 1222; Girls, 1275; Total, 2497.
Average of 10 corresponding years 1869-78, 2340.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	819	816	1645
Average of the ten years 1869-78	838·4	823·1	1661·5
Average corrected to increased population ...	...	...	1778
Deaths of people aged 80 and upwards ...	...	...	82

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	1	4	5	1	8	...	...	...	2
North ...	751729	...	4	5	1	12	...	5	1	2
Central ...	334369	...	1	2	2	8	...	1	...	...
East	639111	1	...	6	1	10	...	2	...	...
South	967692	15	7	12	1	16	1	4	...	12
Total	3254260	17	16	30	6	60	1	12	1	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·033 in.
Mean temperature	35·8°
Highest point of thermometer	45·2°
Lowest point of thermometer	24·5°
Mean dew-point temperature	22·0°
General direction of wind	Variable.
Whole amount of rain in the week	1·41 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 22, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending Feb. 22.	Deaths Registered during the week ending Feb. 22.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620838	48·0	2497	1645	45·2	24·5	35·8	2·12	1·41	3·58
Brighton	105608	44·9	52	45	44·7	29·6	35·9	2·17	0·42	1·07
Portsmouth ...	131821	29·4	85	42	...	...	...	...	...	...
Norwich	85222	11·4	40	37	41·0	29·0	34·6	1·45	0·53	1·35
Plymouth	74293	53·3	50	27	48·5	31·5	40·0	4·44	0·94	2·39
Bristol	209947	47·2	138	74	46·5	21·9	36·3	2·39	0·74	1·88
Wolverhampton ...	75100	22·1	59	38	42·2	25·5	33·7	0·95	0·73	1·85
Birmingham ...	388834	46·3	306	170	...	...	...	...	...	...
Leicester	125622	39·3	96	41	43·0	28·0	35·6	2·01	0·22	0·56
Nottingham ...	169396	17·0	121	76	44·2	28·4	35·0	1·67	0·43	1·09
Liverpool	548334	103·3	417	372	...	...	...	...	...	...
Manchester ...	361819	84·3	273	273	...	...	...	...	...	...
Salford	177849	34·4	135	133	...	...	...	...	...	...
Oldham	111318	23·9	73	74	...	...	...	...	...	...
Bradford	191046	26·5	137	90	39·4	29·0	33·7	0·95	0·25	0·63
Leeds	311860	14·5	217	168	41·0	30·0	34·2	1·22	0·56	1·42
Sheffield	297138	15·1	195	142	43·0	29·0	34·1	1·17	0·29	0·74
Hull	146347	40·3	92	52	41·0	25·0	33·3	0·73	0·83	2·11
Sunderland ...	114575	41·4	100	51	39·0	29·0	33·7	0·95	1·23	3·12
Newcastle-on-Tyne	146948	27·4	111	68	...	...	...	...	...	...
Edinburgh	226075	53·9	140	92	38·8	21·4	31·4	−0·34	0·53	1·35
Glasgow	578156	95·8	388	271	40·0	26·0	33·4	0·78	0·38	0·97
Dublin	314666	31·3	195	227	47·7	24·0	35·9	2·17	0·21	0·53
Total of 28 Towns in United Kingdom	8502896	38·6	5917	4208	47·7	21·4	34·8	1·56	0·61	1·55

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·03 in. The lowest reading was 28·81 in. on Monday morning, and the highest 29·29 in. on Wednesday at noon and at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ON THE REGULATORY FUNCTIONS OF THE ORGANISM.

By L. HERMANN,
Professor of Physiology at the University of Zurich.

GENTLEMEN,—While I have consented to your President's kind request that I should contribute something to the proceedings of the day, I must also state that I can comply only imperfectly with his specially expressed wish to speak on a subject connected with hygiene. Still, the object I have in view has something to do with hygiene, though in another sense than that commonly associated with the expression. The most powerful hygienic elements we possess in our own body are, in point of fact, the numberless mechanisms of regulation, tending incessantly to oppose and compensate the actions of the different noxious influences on our organism—thus, within certain limits, preserving our health under the most various circumstances, and restoring it again by their action when it has become disturbed. It is perfectly true that the so-called "healing force of nature" is nothing else than the effect of slow-acting regulating processes—for that reason more difficult to recognise; and that disease is in most cases probably nothing else than a disorder of the regulatory apparatus, or a misapplication of the regulatory forces. In fact, there is scarcely any engine to be found where the power of the regulators is put to such coarse and severe tests by its owner as man does with his own wonderful machine, though he cannot restore it by fresh acquisition.

Physiology, it is true, is only beginning to take this mode of view. We obtain our knowledge of nature in much the same way as the student gets his knowledge of a steam-engine. For him also the guiding mechanism (the regulator) is the last to be explained; it causes him trouble enough to understand thoroughly the clumsy work of the piston, the balancer, and the pumps. In physiology we attained a knowledge of the coarsest things only a comparatively short time ago—of the circulation of the blood some two hundred and fifty, of respiration about a hundred, and of the law of electrical irritation from thirty or forty years ago. Our knowledge concerning regulation is of a much more recent date. It is, in fact, rather the physician's work to grapple with those more delicate problems than the physiologist's. The physician observes the most intricate processes, but in obscure forms, hardly to be disentangled. We, occupying ourselves only with problems which can be resolved, adhere for that reason for the most part to coarser objects.

Taken in the broadest sense, the whole of the nervous system is a regulator. Even our voluntary acts can for the most part be reduced to regulatory provisions against hunger, cold, and death in every form. But we need not go so far into abstract matters; in the domain of the vegetative functions we meet with the most concrete regulatory acts in abundance.

The organs of vegetative life are excited generally by a ganglionic apparatus, having its seat in themselves; but the adaptation of their work to the wants of the organism is effected by nerves which interfere with the said apparatus either by stimulating, accelerating, and strengthening, or by hindering, slowing, and weakening its action. The question arises, why do we find two different orders of antagonistic nerves, whereas it seems that one order only might suffice to produce any degree of activity? Now, it has been recently shown, in relation to the two orders of nerves of the heart, that they are not mere antagonists, and that their interference with the automatic mechanism of the organ must be more complicated than our simple plan would lead us to believe. Then, on the other hand, the regulatory action produced with one order of nerves only would prove dangerous for the organism. If we have accelerating and inhibitory nerves, the automatic apparatus may do its work alone, at a moderate rate; and if the regulatory nerves were paralysed, it would still take that same course, so that there would probably be no immediate occasion for any danger. If, on the contrary, we had accelerating nerves only for regulation, the whole apparatus would fulfil its purpose—that is, it could be adapted to any degree of celerity whatever when the automatic ganglia alone did not act at all, or only acted very slowly. In the same way, they would act by themselves, and produce a maximum of celerity, if there were inhibitory nerves only for regulation. But in both cases the failing of the regulatory nerves would have an immediately pernicious effect.

Whip and rein—so we may call, in short, the two orders of nerves just named—are managed by nervous centres in the brain and spinal cord, according to requirement. The regulatory process must therefore be considered as a reflex action, a transference from centripetal or centrifugal nerve impressions, partly accelerating, partly inhibitory. In some cases the mechanism becomes still more complicated, because there exist two antagonistic orders of centripetal nerves also. An example of that kind of mechanism will be spoken of further on.

Now I shall explain, briefly, some of the mechanisms of regulation, which have been followed up most closely.

It is necessary that the true factories of our body—viz., the tissues—should be kept at a temperature always constant, should be provided with a regular blood-stream, and that the chemical composition of the blood should preserve its normal standard, especially with regard to its quantity of oxygen.

The regulation of *temperature* has been longest known of all. The warm-blooded animal can only carry on the functions of its tissues within very narrow limits of temperature, and there are manifold ways in which any transgression of the upper or lower limit is avoided. These belong, to a large extent, to voluntary acts, guided by the cutaneous sensibility. We warm our dwellings, put ourselves to bed, and vary our garments, according to the necessity of retaining or of losing heat. We expose ourselves sometimes to currents of air, withdrawing heat very rapidly; or we may even immerse our bodies in cold water—a still better heat-conductor than air, and one which produces, therefore, a more cooling effect. We regulate the temperature of our food and beverages according to our wants, from the temperature of ice to far above the temperature of the body. We raise in various ways the heat-production, by increasing and modifying our food-supply; we regulate the degree of muscular exertion, because we learn instinctively that it increases the heat-production—partly by direct secondary production of heat during the contraction of the muscles, partly by the various frictions by which it is accompanied.

But the more delicate regulation belongs to machine-like involuntary processes. The most efficacious regulator of temperature is the blood-stream in the skin. Since we are almost always, even in the hottest summer, in surroundings cooler than the body, we are therefore always losing heat by conduction. The heat-loss is nearly proportional to the velocity of the cutaneous circulation—a point demonstrated recently by the calorimeter. Now, heat produces, directly and immediately, relaxation and enlargement of the blood-vessels of the skin, that is, acceleration of the blood-stream. Cold has the reverse effect. Besides, the velocity of the stream is regulated indirectly in the same sense, heat, within certain limits, accelerating and strengthening the beats of the heart. The quickening of respiration by heat, which in extreme cases is heightened until true dyspnœa occurs, has also something to do with regulation, inasmuch as respiration has a cooling effect. In high temperatures a new regulator is brought into activity by irritation of the sweat-nerves. It is not yet quite clear whether the centres of the sweat-nerves are directly irritated by heat in association with the respiratory centres, or whether the skin, by means of centripetal nerves, rouses the centres. The moistening of the skin produces abundant evaporation, and therefore rapid cooling, because heat becomes latent—a means which acts differently from the others, because it continues in full activity even in surroundings warmer than the body.

But all these regulatory processes are of a merely palliative character in comparison with one, long disputed, affecting the calorific processes themselves, and acting throughout longer periods, viz., that of *nutrition (Stoffwechsel)*. The energy produced by the nutritive changes is generally measured most easily by measuring the relative volumes of the respiratory gases; sometimes also by measuring the amount of urea—though the latter indicates, it is true, only the consumption of albumen. That those quantities would be in inverse relation to the temperature (a relation which is

called for if a regulation exist) has long been disputed, even when by more direct means an increase of the heat-producing processes had been shown. On the other hand, there was the fact that cold-blooded animals show an increase, and not a diminution, of nutritive activity in higher temperatures; and even in warm-blooded animals similar observations had been made in extreme variations of temperature. But, according to more recent investigations, it seems that the relations just named show themselves in *extreme* variations of temperature only, where the regulation referred to does not suffice. Within the limits of moderate variations of temperature the energy of nutrition follows the inverse course from that of temperature—that is, there exists a regulation which is entirely deficient in cold-blooded animals. This regulation is effected by the nervous system. When the central organs are paralysed, the changes of nutrition follow, without resistance, the general law that chemical processes are promoted by heat. But the mode in which the nervous system acts in the opposite direction has still to be searched for. Moreover, it seems nearly self-evident that these questions are in the most intimate connexion with the great pathological problem concerning the origin and essence of fever, where this special mode of regulation seems to be deranged.

The regulation of the *circulation* is called for, not only for the purpose of maintaining a constant *velocity* of the stream, or, better, a velocity adapted to the functional state of the tissues, but also for maintaining the necessary *pressure* in the capillaries of the tissues; a certain degree of tension, or in other words a sort of erectile state, appearing to be absolutely necessary for the integrity of the tissues. When we see that the brain and the retina lose their activity almost instantaneously by rapid changes of blood-pressure, it would be difficult to explain such a fact by assuming a sudden disturbance of nutrition as the only result of the altered blood-stream.

Frequency and strength of the cardiac impulse chiefly determine the velocity and pressure in the vascular system; but a second powerful factor is the state of contraction, or the tonus, of the arteries.

The factors which exercise their influence on the *force* of the cardiac impulse are still almost totally unknown; but the frequency of the beats, which presents a certain mean in the isolated heart with its intrinsic nervous machinery only, is affected by accelerating and inhibitory nerves, both taking origin from the cerebro-spinal organs. What has been said above on the mutual relations, not exactly antagonistic, of these nerves, is to be referred chiefly to the cardiac nerves. Also, the tonus of the arteries depends, as it seems, in the first place, upon the influence of a nervous apparatus located in themselves; but this is governed, secondly, by two sets of nerves coming from the cerebro-spinal centre—one going to strengthen the tonus, therefore contracting; the other inhibitory, therefore relaxing the arterial walls. The contracting nerves were known long ago as vaso-motor nerves; the relaxing nerves have but quite recently won their place in general acceptation, though their existence is no longer seriously disputed.

Now the question arises as to the way in which a regulatory relation is effected between the nerves going to the heart and those to the arteries. The central point for all vaso-motor centres spread along the spinal cord is situated in the medulla oblongata, and is influenced by centripetal fibres coming from every part of the periphery, and going partly to strengthen the activity of the general vascular centre, and partly to weaken it. Because these nerves exert at the same time a corresponding influence on the blood-pressure, the first set are called *pressors* or excitors, and the second set *depressors*. It is not yet known whether every part of the body possesses pressor and depressor fibres—an assertion recently made; that is, whether any spot whatever can pull the bell-rope, according to its wants, of higher or lower blood-pressure. The heart is specially provided with pressor and depressor fibres; and it is probable that, when that organ becomes too much distended under high blood-pressure, the depressor fibres are irritated mechanically, and so relief is given. On the other hand, the regulatory nerves of the heart are influenced also by other centripetal nerves of very different kinds, coming from the most distant parts; so that it is certain that either excessive or insufficient tension of the tissues has a regulating effect on the work of the heart.

We know many more facts connected with the regulation of the function of the heart, which cannot, for the most part, be yet appreciated in their influence on the whole mechanism. The cerebral centre for the regulation of the heart depends on the blood-pressure in the brain, and further, in a high degree, on the state of the blood as regards oxygenation; but we cannot yet appreciate the value of that form of dependence; besides, the heart is influenced also by the pressure of the blood in its own cavities in a manner not yet definitely established. It has been already shown that the vascular tonus in general can be regulated from every spot of the skin, but that mode of action is not uniform. While at the irritated spot the bloodvessels become dilated by inflammation in the well-known way, in other parts the vessels may contract; and that must be even very generally the case, because strong and painful irritation tends to elevate the pressure of the blood; on the other hand, we see at the same time dilatation of the vessels and acceleration of the blood-stream in the skin, with diminution of the temperature. No one will assert that he has yet a clear insight into the complicated, and without any doubt regulatory, mechanism of those actions.

The regulatory mechanism of *respiration* is somewhat easier to explain, because respiration means nothing else than a merely mechanical compensation of different tensions of gases; and their consumption in the tissues acts in a strikingly simple manner on the respiration in the lung. The more oxygen is consumed in the tissues, the lower becomes its tension; whilst the larger the quantity of oxygen escaping from the blood, the more highly that fluid is saturated with it. By this process the blood gets more and more deprived of oxygen as it enters the veins, and then the process of compensating the low tension of the oxygen in the venous blood of the lung with the high tension in the atmosphere becomes the more energetic. Quite the same process is going on in the formation and elimination of carbonic acid. Again, the respiratory regulation is assisted also by the circulation during a period in which very much oxygen is consumed, and carbonic acid formed by the muscles. During muscular contraction the vessels become dilated, so that by the accelerated blood-stream more oxygen is set free, and more carbonic acid and other refuse materials are carried away.

But the merely mechanical effects of the consumption of gases in the tissues, and their reception in the lungs, is not sufficient. As in the muscle the larger consumption must be assisted by the quicker blood-stream, so respiration in the lungs must be the more energetic the more the blood has to undergo contact with the air. Here we have that wonderful contrivance by which the activity of the centre of respiration is regulated merely by the relative quantities of gases in the blood itself. When the change of gases in the tissues is weak, or when in other ways—for instance, by pumping air artificially into the lung—a larger quantity of oxygen becomes stored up in the blood, respiration gets quite superficial or ceases entirely (apnœa); whilst in the opposite case it becomes deeper and increases so that the whole of the auxiliary muscles are set into activity (dyspnœa), or even the muscles of the whole body (convulsion of asphyxia). All this is brought about quite simply, the carbonic acid of the blood being a very strong stimulant for the central nervous organs.

Besides this, there exists a regulation by the nerves, which adapts, in a manner not yet quite established, the rhythm of respiration to the different states of the respiratory apparatus. We know that the ramifications of the nervi vagi going to the lungs and the larynx affect the rhythm of the respiratory movements in various ways, not including the true protective acts of respiration, viz., occlusion of the glottis and cough, which are occasioned by special wants. It seems that over-tension in the lung can be remedied by expiration; it has been tried, even, to ascribe the whole alternation of inspiration and expiration to a self-regulation by the nervi vagi—a view which will probably not be confirmed in its full extent.

Without doubt, regulatory acts play a part also in the numberless phenomena of *nutrition*, but on this ground we are still obliged to confess our ignorance. It is even impossible to explain the most powerful regulator of nutrition—viz., the duration of hunger; and still less the various appetites seen during pregnancy, and after losses of blood. Thirst perhaps is a little easier to explain. We see a special organ of sense, irritable by want of moisture, as the retina gets irritated by light, placed, on a most ingenious plan, in such a manner that the most simple way of moistening it conducts at the same time the fluid to the stomach.

We do not know whether the chemical changes in the

tissues are influenced directly by special *trophic nerves*, though that has been made more probable recently by the phenomena of the regulation of temperature mentioned above. It would be the more premature to offer an explanation of the regulation of nutrition, that we know only the mere outlines of the various nutrition-changes themselves, and almost nothing very definite of the principal functions of such important organs as the liver and spleen.

But it is time to conclude my remarks, and that all the more because I could give you scarcely anything further but mere conjectures. It is true that we see many processes where we can guess at the existence of regulatory apparatus without possessing the key to them. Animated by the idea of natural selection, we are inclined to estimate none of these physiological arrangements as casual, but most of them judicious, though there may also be weak points of the organism. It may be an instance of such a weakness, that certain effects augment the secretion of tears; that terror produces augmented secretion of urine, of the excretion of the bowels, or acceleration of the peristaltic movements; but perhaps a certain expense of water is useful after the nervous shock. Even perhaps blushing for shame may have, besides the moral meaning, a physical one.

Excuse the fragmentary character of these remarks, and, above all, the fact that I have not given you anything new—at least, not new to those who have found time to follow up the physiological literature of our epoch. But I think it most useful to practitioners to turn their attention to the regulatory arrangements of the body, with the troubles of which they are daily occupied. The knowledge of these, though, it is true, still in its infancy, will contribute mightily to give a sound basis to that other division of medical practice, so highly valued in our time—namely, the conservation of health, besides the healing of disease.

ORIGINAL COMMUNICATIONS.

A SHORT ACCOUNT OF THE PROGRESS OF PLAGUE FROM ITS REAPPEARANCE IN 1853.(a)

By J. NETTEN RADCLIFFE,
Vice-President of the Epidemiological Society.

In deference to the wishes of the President, who is of opinion that it would be useful to lay before the Society, at the present moment, a general statement of the facts relating to the reappearance of plague in the East, I have prepared the following summary of information in the possession of the Society, adding such facts as are known relative to the recent manifestation of the disease on the continent of Europe in Eastern Russia.

"The great drama enacted by plague for over a thousand years" (to use the words of August Hirsch) closed in Europe in 1841, in the Levant generally in 1844. A century and a half of freedom from the disease in this country, and in the greatest part of Western Europe, had not effaced the popular terror of it, when the malady disappeared from all its most ancient haunts, and Europe and the Levant believed themselves to be freed from an evil which had scourged their populations for many generations. They believed, however doubtingly, as is shown by the retention of their laws against plague unmodified, and by the state of preparedness maintained with regard to them. Moreover, certain prescient physicians held that the disappearance of plague gave no warrant of its permanent extinction. Among this group of far-seeing men, our venerated member and former President, Dr. Gavin Milroy, stands pre-eminent; and I may be pardoned if I interrupt the course of this paper for a moment to express my deep regret—a regret which, I feel assured, is not peculiar to myself, but is common to all the members of the Society—that he cannot be with us to-night, less in consequence of advanced age than, I grieve to say, of painful sickness. To Dr. Milroy we are indebted that the study of plague has never ceased to have great interest for the medical profession in this country, and that as a matter not only of literary or historical research, but also of true practical interest, as illustrating important questions of policy in reference to public health requirements. Dr. Milroy's writings on plague, and on subjects connected therewith, have just now a peculiar value; and the Society must feel that his absence from its meetings, at a time when the subject is under consideration, is a most grievous loss.

In 1853, ten years after the disappearance of plague from its familiar haunts, the disease showed itself anew in the East; and in the course of the twenty years 1853-72, a series of outbreaks occurred, of interest, as it first seemed, rather to the epidemiologist than to the international hygienist. Outbreaks occurred in Western Arabia, 1853; the district of Bengazi, Regency of Tripoli, North Africa, 1858-59; Persian Kurdistan, 1863; Mesopotamia, 1867; and Persian Kurdistan again, 1871. These outbreaks occurred in localities widely separated from each other (not even excepting the two in Persian Kurdistan), and they were curiously circumscribed; but the information we possess with regard to them leaves no reasonable doubt that they were outbreaks of bubonic (true) plague.

In the winter of 1873-74, and spring of 1874, a new phase of development, so to speak, of the resuscitated plague began. Within this period the disease broke out in three different countries of the East, all of which had suffered from the malady in the earlier period of its reappearance. These manifestations occurred practically contemporaneously in Mesopotamia, in Western Arabia, and in the district of Bengazi, North Africa. The outbreaks in Western Arabia and Bengazi affected, more or less, the localities in which the disease had prevailed in 1853 in the former country, and in 1858-59 in the latter; and they were as circumscribed as those of the years last named. The outbreak in Mesopotamia occurred on the verge of the locality which had been the scene of the outbreak of 1867, and in its progress included that locality. But this outbreak of 1873-74 proved to be the beginning of a prevalence of the disease, which continued throughout the years 1874, 1875, 1876, and 1877, the area of diffusion extending each year until 1876, when it included the whole of Turkish Arabia (Irak-Arabi) bordering upon the rivers Euphrates and Tigris, and extending between the Euphrates and the Syrian Desert. 'In the third year of prevalence, 1876, it is estimated that not less than twenty thousand persons in the infected district were killed by plague. The loss of life in Bagdad from the disease during the years 1876-77 probably exceeded five thousand.

While this diffusion in Mesopotamia was in progress, and in the year 1876, plague broke out early in the year in the Shuster district, Khuzistan, South-West Persia, killing there about 2500 people. Later in the same year, the disease showed itself in one of its former haunts among the Himalaya mountains, North-Western India, and, namely, in the district of Kumaon, and prevailed there several months. About the same time, cases of plague, in isolated instances or in groups, were recorded in Northern Persia, in more than one locality of the province of Astrabad; and in the spring of 1877 the malady declared itself in the province of Ghilan, attacking especially the capital town, Resht, and the surrounding district, where it is estimated to have killed some 4000 people before the close of the year. The same year, cases of plague probably occurred at Baku and other places on the Caspian littoral of Caucasia; and it has recently been made known that the disease, also in the same year, was scattered widely in European Russia—thirty-two cases of the malady were reported to the medical department of the Imperial Government as having occurred in the south-western province of Tchernigow, and forty-one cases in the north-eastern province of Viatka, the total cases officially reported in the empire numbering 241. Details are still wanting of the general distribution of these cases; and no information has yet been received of the movements of plague in Russia in 1878, except so far as relates to the outbreak in Astrakhan.

I have thus briefly sketched the history of this new development of plague, from its first appearance in the East to the period of invasion of Europe by the disease. The numerous outbreaks to which reference has been made have not passed without largely enriching the literature of the subject. I would especially refer to the contributions of Dr. E. D. Dickson, the physician to the British Embassy, Constantinople, and of Surgeon-Major Colvill, attached to the British Residency, Bagdad, to this Society; also to various official reports on the subject by the latter gentleman. I would further refer to important monographs by Dr. Tholozan, one

(a) Read before the Epidemiological Society, February 26, 1879.

of our corresponding members, physician to the Shah of Persia; Dr. Castaldi, Ottoman delegate to the Board of Health, Teheran; Drs. Naranzi and Arnaud, members of the Ottoman medico-sanitary staff; Mr. Planck; and the Sanitary Commissioner for the North-West Provinces and Oudh. These writers have furnished us with a large amount of information as to the disease and the conditions favouring its prevalence, which is invaluable in view of the malady having again to be dealt with on European soil.

With reference to the recent outbreak of plague in the province of Astrakhan, I propose to follow chiefly the account given in an official report made by Dr. Döppner, the principal officer of the Cossack forces, who was on duty in the infected district at the time the disease first manifested itself there in an epidemic form. He states that about the middle of November, 1878, attention was called to the prevalence, in the stanitsa of Vetlianka, on the right bank of the Volga, of a febrile disease, in the course of which, on the seventh or eighth day, occurred swellings of the lymphatic glands, in the groins or in the armpits. Dr. Döppner visited Vetlianka on November 30, and saw there eight patients, none confined to bed, exhibiting the following symptoms: moderate low (*débilitante*) and intermittent fever; the appetite good, and organic functions normal; suppurating glands in the groin or armpit. The duration of this sickness was from ten to twenty days, and all who suffered from it recovered. Dr. Döppner states that he had observed a similar affection in 1877, when five persons under his observation were attacked with it at the advanced post, Mount Caucasus, among a body of forty individuals.

After December 9, a new form of disease appeared at Vetlianka. Many persons were seized by it, and several succumbed. Dr. Döppner visited the stanitsa for the second time this month, and he found there twenty-three patients suffering as follows, the symptoms occurring in paroxysms: violent frontal headache, pains in all the limbs, slight shiverings preceded by burning heat of body and eyes, the abdomen distended, liver enlarged, and the pulse from 100 to 120. These symptoms persisted for two or three days, and were followed in some favourable cases by perspirations and a general abatement. But in the majority of the cases, after two or three days, the symptoms became aggravated, there were delirium, sleeplessness, restlessness, a temperature of 42° ? C. (107·6° Fahr.), dryness of the tongue, frequent involuntary dejections, and scanty reddish urine. Death followed upon the second, or more rarely the third, paroxysm. The swellings and inflammations of the lymphatic glands observed in the first phase of the epidemic occurred in this second phase frightfully exaggerated, and determining a fatal result in from twelve hours to three days.

The attack in this second phase was generally ushered in by palpitations of the heart, irregularity of pulse, vomiting, vertigo, oppression of the chest, expectoration of clear liquid blood, pallor of countenance, an apathetic aspect, the eyes dull and the pupils dilated. Then followed for three or four hours a state of complete prostration, succeeded by excessive feverishness, delirium, suppression of urine, the bowels being constipated. To all these symptoms were added spots on the body, of a size varying from a pea to a piece of ten copecs; the patients exhaled a peculiar odour something like honey; and death supervened in a state of collapse, the patient being insensible. The bodies began to decompose at the end of from two to three hours. The mortality became greater and greater as the epidemic increased, and after December 26 every person attacked died.

Dr. Döppner hesitated to designate the disease plague. He expressed the opinion that it was either a most acute form of typhus, or a peculiar form of plague (*pestis Indica*, Hirsch), or a new malady intermediate between typhus and plague. He does not seem to have been aware of the existence of bubonic plague in Russia ("Siberian plague" as it is there termed) during the previous year.

Dr. Döppner describes Velianka as situated in the district of Yenotaier, 194 versts (verst, two-thirds of a mile, English) from Astrakhan, twenty versts from Nicolsky, and ten versts from Prichiba. It lies on the right bank of the Volga, in an open situation, and at a considerable elevation above the level of the sea. The soil is clayey, and the vegetation (wormwood and feather-grass) scanty. The stanitsa has existed 200 years. It has a population of about 1700, occupying 300 houses, all of which are constructed of wood. These buildings, of medium size, are stated to have uncleanly interiors. The cemetery is situated 100 sajènes (equal to 700 feet) to the west of the stanitsa. The inhabitants are all engaged in fishing, and no other industry exists in the place. Dr. Döppner refers to a particular fishery at the foot of the hill, adjacent to the stanitsa, as having attracted the attention of the Minister of the Interior—I assume, on account of its especial filthiness; for certain of the official accounts describe the fishing stations in this district, and the tanks used for salting fish, as in a state of revolting foulness. The old inhabitants affirm that, when cholera prevailed in the province, Vetlianka suffered more than neighbouring localities. Ordinary contagious diseases—for example, scarlatina, measles, "fever," etc.—are said to be always more fatal there. Syphilis was very prevalent in the stanitsa in 1859 and 1860, and "inflammatory fevers" in 1864.

During the recent outbreak, from the middle to the end of December, the weather was moist, foggy, with alternations of temperature varying from + 2° R. (36° Fahr.) to + 14° R. (57° Fahr.). There was little wind—sometimes a feeble current of air from the south-west; and a fine rain fell at intervals. On December 24 snow fell, but quickly disappeared.

An official telegraphic report from Tsaritszin, on the 17th ult., stated that plague had ceased throughout the infected district. Nevertheless, measures were being actively carried out to enclose it with a sanitary cordon, which it was hoped to complete by the 27th ult. The extraordinary measure has, moreover, been taken, under a ukase, dated February 13, 1879, of declaring the infected district in a state of siege—that is to say, under military law; and a governor-general has been appointed over the provinces of Astrakhan and the neighbouring provinces of Saratov and Samara, with exceptional powers (that of proclaiming any part or the whole of these provinces in a state of siege among others), in order to secure the greatest promptitude and efficiency in the execution of any measures which may be deemed necessary against plague.

Eight villages or districts are reported to have suffered especially during this outbreak—six on the right bank and two on the left bank of the Volga. All the places lie between Astrakhan and Tsaritszin; and the infected area appears to extend about 150 miles along both banks of the river. The data as yet received do not admit of any general statement being made of the number of persons attacked, and the loss of life.

I do not propose to offer any observations on the foregoing summary of facts, believing that I shall best meet your wishes, Mr. President, by confining myself to the bare recital.

OBSERVATIONS ON THE CHARACTERS OF EPIDEMIC PLAGUE IN MESOPOTAMIA IN 1876-77.

By E. D. DICKSON, M.D.,
Physician to the British Embassy, Constantinople.

THE sudden and alarming announcement of an outbreak of plague in Asiatic Russia; the possibility of this scourge extending into Europe; the conflicting opinions that seem to be entertained concerning the nature of the malady and the precautions necessary to ward it off;—have prompted the following brief sketch, derived almost entirely from notes taken, and kindly given me, by Dr. Giovanni Cabiadis, as the result of his observations at Hillah and Bagdad, during the outbreaks of plague in 1876-77.

History.—Two or three months previous to the manifestation of plague in Mesopotamia, *glandular swellings free from fever* prevailed in that country. They showed themselves in the groin, armpit, or neck, and were not accompanied by other symptoms. They began to appear amongst the inhabitants about the end of autumn, and continued through the winter; but towards the end of it, plague broke out, and reached its acme of intensity in the spring, and died out suddenly during the summer season when the *great heat* declared itself, and the thermometer rose to 45° or 50° of centigrade scale (113° or 122° Fahr.). During the prevalence of the plague, the thermometer ranged between 5° and 30°; and when it rose to 30° (86° Fahr.), the disease had reached its maximum of intensity. As the temperature increased from 30° to 45° (86° to 113° Fahr.), the epidemic began to

diminish; and as soon as the thermometer got up to 45° (113° Fahr.), it ceased abruptly. On the cessation of plague, *apyretic glandular swellings* reappeared again, precisely similar to those which had preceded the outbreak; and they continued to manifest themselves for about two months longer. These glandular swellings were frequently met with, and were distinct from the chronic adenitic swellings met with in subjects of a scrofulous tendency, and evidently unconnected with any special diathesis.

Symptoms.—The symptoms that characterise plague are of two orders—local and general. In severe cases the general symptoms precede the local manifestations. The patient is suddenly seized with high fever, which in some instances is ushered in by a prolonged shivering fit; the pulse beats 130 or even more, and the temperature of the body rises to above 42° Cent. (107·6° Fahr.). In some cases, however, this febrile condition is hardly appreciable; while, on the other hand, alarming complications indicate the severity of the attack by perturbations connected with the nervous centres, such as convulsive tremor, drowsiness, coma, delirium; or with the circulating system, such as epistaxis, hæmatemesis, hæmoptysis, sanguineous diarrhœa, menorrhagia; or with the assimilative organs, such as painful tumefaction of the liver, bilious vomiting, bilious diarrhœa, jaundice, etc. These phenomena appeared to be dependent on some *periodic impulse*, because at times the bilio-gastric manifestations prevailed, at others the hæmorrhagic, and at others the nervous. The nervous agitation which sometimes ushers in an attack of plague is a very remarkable symptom, and one that Dr. Cabiadis had never met with before. He describes it as a *prolonged regular shake*, lasting from six hours to three days. While the patient is suffering from it, he does not complain of cold, nor does the thermometer indicate a lowered temperature. The pulse is small, short, and quick, and the temperature of the body remains in nearly its normal state. The tremor is always followed by profound coma, during which the patient rapidly sinks.

In some instances of plague, Dr. Cabiadis has seen death supervene within a few hours of the attack, and before any of the characteristic indications of the disease, such as buboes and carbuncles, had shown themselves. These severe cases were mostly met with at the *commencement* and at the *termination* of an epidemic outbreak.(a) They were observed in the plague of 1876 at Hillah, as well as in that of 1877 at Bagdad; and, in these instances, the glandular swellings either did not appear at all, or were very small, and never suppurated; the patient, moreover, seldom lived more than three days. The cutaneous surface, in some cases, was so filled with *petechiæ* that, when death supervened, the skin assumed a dark livid hue, giving the corpse a *blackened appearance*, and so characteristic of the malady that it might even to this day be called the *black death*.

In the usual course of plague, however, the local manifestations precede the general symptoms. The patient first complains of pain in the groin, the armpit, or the neck, and on examining the part a swelling is found there, which rapidly increases, and usually suppurates by the seventh or eighth day; at the same time, carbuncles may show themselves, and in bad cases petechiæ. In these instances the fever runs high and in accordance with the gravity of the case. When death supervenes, it mostly occurs on the fourth or fifth day of the illness; but three-fourths of such patients are reckoned by Dr. Cabiadis to get well.

In slight attacks of plague the local manifestations are seldom accompanied with *fever*, and you often meet such patients walking about the streets, with two or three suppurating buboes upon them. These cases are hardly ever fatal.

I have expressly omitted, in the foregoing description, to mention several symptoms which are usually met with in all febrile complaints, in order to draw attention to those which may be considered as pathognomonic of the plague. Headache, thirst, constipated bowels, lassitude, and aches in the limbs, exist, more or less, in all fevers. The appearance of the tongue in cases of plague is not in general much altered; usually it is red at the tip and edges, and sometimes dry. A comatose state is much more frequently met with than a delirious one. The diarrhœa is always either sanguineous or bilious, but never *serous*. As a rule, an attack of plague lasts from a few hours to four weeks, and Dr. Cabiadis considers that one-third of the attacks end fatally. From the accompanying table, however, of 1826 cases of plague seen and registered by him at Hillah, in 1876, the proportion of deaths to that of the attacks is 52·6 per cent. But a great many cases of plague, he observes, are never made known, and would thus diminish very considerably this percentage of its mortality; whilst the deaths, on the other hand, must all be reported in order to obtain the permit of interment.(b)

Analytical Statement of 1826 *Cases of Plague noted by Dr. Cabiadis, at Hillah, during the Epidemic of* 1876.

From 2 months to 9 years	277
„ 10 years „ 19 „	617
„ 20 „ „ 29 „	432
„ 30 „ „ 39 „	292
„ 40 „ „ 49 „	123
„ 50 „ „ 59 „	52
„ 60 „ „ 69 „	18
„ 70 „ „ 79 „	11
„ 80 „ „ 89 „	3
An old man of 113	1
Total	1,826

Sex: Male, 889; female, 937—total, 1826.

Result: Got well, 865; died, 961—total, 1826.

Manifestations:—

Glandular swellings—in the groin		710
„ „ axilla		466
„ „ neck		98
„ „ several places		122
		1,396
Carbuncles		36
Dependent on the nervous centres	Coma	28
	Convulsive shake	9
Dependent on the circulating system	Petechiæ	120
	Epistaxis	2
	Hæmoptysis	6
	Hæmatemesis	27
	Sanguineous diarrhœa	14
	Menorrhagia	2
Dependent on the assimilative organs	Bilious vomiting	32
	Bilious diarrhœa	16
	Jaundice	2

Diagnosis.—The diagnosis of plague is not difficult, for no other malady presents an assemblage of symptoms so well marked and so significant of its true nature. In fact, no other idiopathic fever, attacking a multitude of persons at the same time, is characterised by glandular swellings, by carbuncles, and by those severe manifestations of the nervous, sanguineous, and bilious systems which declare themselves in an attack of the *plague*.

Dr. Beck and a few other physicians, basing their views on the intermittent phenomena manifested in some cases of plague, imagined that the disease might be merely a variety of the *pernicious fevers* engendered by the *malaria poison*; but Dr. Cabiadis cites three facts which conclusively subvert this hypothesis.

1. No *intermission* has ever been observed in the symptoms of plague, not even in those intercurrent phenomena which arise from complications of the nervous, circulating, and assimilative organs.

2. There is no instance on record of an attack of plague having been *cut short by the administration of sulphate of quinine*.

3. A striking difference marks the *expression of the countenance* and the *general aspect* presented by a person suffering from an attack of *pernicious fever*, and those of one suffering from the *plague*. On coming up to a patient suffering from an attack of pernicious fever, you are struck with the gravity of the case and the danger threatening his life. The very reverse of this meets your eye when you see for the first time a case of plague. Even the worst instances of this malady are apt to deceive an inexperienced physician, and make him fancy that the case is free from danger, when in reality the patient has only a few hours to live. The first

(a) I have noted a similar circumstance in severe epidemic outbreaks of *cholera*. The first and the last attacks are mostly *fatal*.

(b) The same remark applies to the death-rate shown by the official register kept at Bagdad in 1876, and which gives 55·7 as the percentage of deaths to that of the attacks.

instance of plague seen by Dr. Cabiadis did not seem to him to be one of an alarming nature. The patient looked stupefied, or rather as if intoxicated, and did not answer readily the questions put to him. He had vomited blood, and had a very small bubo in the right axilla; but the pulse and temperature were normal. The patient died *a few hours after Dr. Cabiadis's visit.*

Progress.—Rapid suppuration of the buboes, even when accompanied with *high fever*, indicates a favourable termination. All cases complicated with nervous, hæmorrhagic, or bilious manifestations end fatally.

Contagion.—With regard to the debated question of contagion, I beg to draw attention to the conclusions arrived at by Dr. Cabiadis, and which are derived from a careful study of the facts that came under his observation during the two last outbreaks of plague in Mesopotamia.

Dr. Cabiadis neither attempts to deny the contagious properties of plague, nor does he accept unconditionally the assertion of those who pretend that you must keep at a distance, say of six *mètres*, from the patient, in order to avoid contracting the disease. The experience acquired by him during the epidemic outbreaks at Hillah and Bagdad has convinced him that no great risk is incurred in *touching a person affected with the plague*, provided you avoid exposing yourself for any lengthened period to the atmosphere of the apartment occupied by him. As a proof of this doctrine, he says that those persons who lived in the same house with a plague-smitten patient, but who avoided touching him or his clothes, through fear of catching the infection, generally did get the plague; whilst those who lived in houses exempt from the malady, but who visited plague-patients and handled them freely, without remaining long in the same room with them, hardly ever caught the disease. When plague entered a house, it seldom spared its inmates, and often carried them all off within a week's time. In noting these facts, Dr. Cabiadis was careful to take into account the various tenets of the different religious sects of the people of Bagdad; for, while the Mohammedans, discarding all sanitary precautions, lived with and handled plague-patients, the Jews and Christians, on the contrary, firmly believing in its contagious properties, very seldom touched them; yet all of them equally caught the disease if they *lived in the same house* with the plague-patient, but were safe if they *quitted the house* the moment a case of plague occurred in it. Dr. Cabiadis quotes another remarkable fact in support of his theory. With *one exception* none of the physicians, surgeons, or assistants who daily attended on plague-patients caught that malady, and he himself handled nearly 2000 plague-smitten persons without suffering any inconvenience from it. To this it might be objected that the immunity enjoyed by them was owing to their *contact with the sick being a momentary one.* But Dr. Cabiadis remarks that, if this be true with respect to the physician, it cannot be so with regard to the surgeon and assistant, whose duties obliged them to prolong their stay near the patients for the purpose of opening abscesses, washing and dressing sores, etc. The exception alluded to above was that of *an assistant who actually died of the plague.* But, in an epidemic outbreak affecting a whole population, one death among an entire corporation would rather indicate the law that governed the general mortality at the time than the exceptional liability of that body for coming into contact with the disease.

Dr. Cabiadis does not think that the *infectious matter* of the plague is contained in the pus secreted from the buboes and sores. Plague, he observes, is transmitted even in its incipient stage, and before any of the swellings or boils have suppurated. The problem, therefore, remains to be solved, whether the specific *materies morbi* of plague is exhaled from the patient's respiratory organs, from his cutaneous surface, or from some other emunctory.

These considerations lead me to the important practical question of *fomites.* I was very anxious to obtain from Dr. Cabiadis the fullest information on this point, so as to clear up, if possible, this intricate subject. Dr. Cabiadis says that he considers the *atmosphere* which surrounds a person affected with plague as the true medium of transmission. Apart from this, he has also met numerous instances in which, he believes, the *clothes and bedding* of plague-patients communicated the malady to sound persons living beyond the sphere of the epidemic outbreak. Such articles were made of wool, cotton, flax, or hemp. He ignores whether these materials in a *raw state* would have given the disease as well, since he has not met with any fact to enlighten him upon the subject.

Etiology.—The origin of plague and the causes that bring it into activity are utterly unknown. Some persons have conceived the idea that a *marsh-miasm* might be the exciting cause of this pestilence, but Dr. Cabiadis refutes this idea by quoting the immunity from plague enjoyed by Bussorah and Kerbela, two of the dampest cities in Mesopotamia, and both of them *surrounded by marshes.* Kerbela, in fact, stands on an island in the midst of a marsh, the waters of which reach up to its very walls. Midhat Pasha, when Governor-General of Bagdad, built a fine new quarter at its south-west end; the whole of it, however, has now fallen down in consequence of the foundations being embedded in a slushy soil. Kerbela, therefore, according to the malaria hypothesis, ought to be a spot favourable to the development of plague, and yet it has not been visited by that epidemic, notwithstanding that all the surrounding villages have been more or less attacked by it, and that persons suffering from the plague have gone to Kerbela and died there.

Some persons have fancied that eating *diseased camel's meat* might have caused the outbreak in Mesopotamia. In order to find out whether there were any truth in this assertion, Dr. Cabiadis made a careful inquiry, but failed to discover any evidence in corroboration of it. He therefore infers that diseased camel's meat, like that of any other diseased animal, might *predispose* to an attack of plague, but not engender the malady.

Proximate Cause.—The most palpable and evident of all the causes which predispose an individual to an attack of plague during an epidemic outbreak is *poverty.* No other malady shows the influence of this factor in so striking a degree—so much so, indeed, that Dr. Cabiadis styles the plague *miseræ morbus.* In his experience, he found that the poor were seldom spared, the wealthy hardly ever attacked. *Cholera* also has a preference for the poor, but at the same time it spares not the rich; whereas plague attacks exclusively the poor. Here, again, Kerbela presents a striking proof of this fact. Its inhabitants are the most prosperous section of the whole population of Irakarabi (Turkish Arabia), and even its poorer classes can at all times live on a meat diet. Its streets are narrow and crooked, but the houses are spacious and well aired. Hillah is the very reverse of this: its houses are low, confined, and very imperfectly ventilated. They are, moreover, generally encumbered with a horse, with poultry, and with two or three buffaloes. These animals constitute the resources whence the lower classes of Hillah derive a livelihood by selling milk and eggs to the wealthier inhabitants, while they themselves limit their own nourishment to barley-bread, dates, and onions, with sometimes fish in a putrescent state. It is needless to add that Hillah suffered severely from the plague.

Prophylactic Measures.—The most effectual means for the protection of a community against the propagation of plague—the isolation of the sick, the destruction by fire of their clothes, and the whitewashing with lime and free ventilating of the domiciles in which cases of plague occur. The plague *reappeared in only one* out of 350 houses which had been *whitewashed* after an outbreak of plague in them, whilst its reappearance in houses which had merely been abandoned for a time, after an attack of that disease, but which had not been whitewashed, *was of frequent occurrence.* The other disinfectants tried, such as sulphur fumigations, lighting fires, and throwing a solution of sulphate of iron into the drains, gave no decided results, except when associated with the whitewashing and airing of the infected houses.

Cordons Sanitaires.—Dr. Cabiadis believes that *cordons sanitaires*, properly enforced, are extremely useful in checking the extension of an outbreak of plague. The greatest vigilance, however, is required to render them efficient, because the persons put to guard these cordons often allow passengers to evade them, either through neglect of their duties, or through the persuasive influence of bribes. He strongly condemns, however, the practice adopted at one time at Bagdad of shutting up persons smitten with the plague in their houses, and placing guards round them to prevent communication with the rest of the population. The fear of this harsh and unreasonable measure caused the inhabitants to *conceal* the existence of the malady, and even

to bury inside the house those who succumbed from it; thus deceiving the authorities, and helping to intensify and propagate the evil it was intended to mitigate.

Treatment.—Dr. Cabiadis can offer no suggestions worthy of trust as to the best mode of treating plague. The remedies chiefly tried at Bagdad and at Hillah were leeches and mercurial frictions to the swellings, combined with the internal administration of phenic acid or sulphate of quinine. In some cases these remedies were thought to do good, while in others they proved useless, if not detrimental; and Dr. Cabiadis is convinced that we know as little about the cure of this disease as we do about its essence.

He concludes his interesting notes on this subject by expressing astonishment and regret that no public hospital exists in Bagdad, an extensive city of 150,000 inhabitants.(c) A large *military* hospital was built there by Midhat Pasha on a fine and healthy site, but no use has been made of it. He therefore suggests that the Government should turn it into a *civil hospital* for the benefit of the people of Bagdad.

OBSERVATIONS ON PLAGUE,

MADE DURING THE DISCUSSION AT THE EPIDEMIOLOGICAL SOCIETY, ON THE 26TH ULT.

By SURGEON-GENERAL JOHN MURRAY, M.D.,
President of the Society.

Dr. Dickson is entitled to our best thanks for the very valuable information he has sent us as to the nature of the plague which has been raging in Mesopotamia, the extension of which to Resht and Astrabad was noticed in my opening address this season. It accurately describes the character of the plague which appeared in India, at Bala, in 1836, and in the Himalayas from 1822 to 1876. We have also to thank Mr. Radcliffe for an interesting account of the progress of the disease, as far as official information enables us to trace it, in its course to Astrakhan and up the Volga.

I fully concur with Sir Joseph Fayrer in its being our duty to avert a panic should the plague appear in England, though I differ from him as to the means we should employ for this purpose. His reiterated assurances, backed by the authority of Clot Bey, that the disease is not contagious, can by possibility only be applied to a restricted meaning of the word—namely, personal contact—to which it was not limited by former writers on the plague, who, in using the word contagion, meant the communication of the virus, directly or indirectly, from the sick to the well; and my experience indicates that it may be communicated by either channel. Sir Joseph allows that the disease may be transmitted through the clothes; and Dr. Cabiadis admits that it may be imbibed from the atmosphere in the vicinity of the sick, even though no personal contact take place; as, generally, all the inhabitants of the same house were affected and died; though a casual visit was unattended with danger. In Dr. Plancke's report on the plague in Kumaon in 1876, it is stated that this immunity is limited to the day, but does not extend to the night. Mr. Netten Radcliffe is very confident that there can be no danger from contact with the person, or from breathing the surrounding air, provided the sanitary regulations established in England are not neglected. It should be highly reassuring to the public to have such good authority for not being frightened; still, it is advisable to analyse and weigh the value of the security, and to inquire whether faith in it is well grounded.

There is a want of evidence that the sanitary arrangements in operation will prove to possess the efficacy ascribed to them, as, owing to the long absence of plague from England, they have never been tested. I have seen an analogous contagious epidemic—viz., cholera—prove very fatal in the gaols in India, where the sanitary arrangements are more fully and carefully carried out than is practicable in London or any seaport in Britain. Mr. Radcliffe is of opinion that the continental States which do not possess a sanitary organisation similar to ours are in danger of being attacked; and we must be careful not to place too much reliance on measures however valuable, lest our own confidence bring discredit on the importance of sanitary science should the disease appear in this country, which is, in my opinion, a highly probable contingency.

In hearing of the steady advance of this epidemic, we are at once struck by the close analogy it presents to the advance of cholera from Persia to Russia in the three epidemic years of 1830, 1847, and 1854. Cholera, which had prevailed in Bagdad and Tirhan in 1828-29, extended to Resht, on the Caspian, and appeared at Astrakhan in 1830. It had also shown itself at Orenberg during 1829. The disease again appeared at Astrakhan in 1847, having raged the previous year in Persia and on the coast of the Caspian. The attack of 1854 was also preceded by a similar appearance of the disease in Persia.

In all these cases the disease, originating in India, ascended the Volga, and extended to Europe; and the history of the present attack of plague shows many points of correspondence to the cholera epidemics I have just traced. It prevailed in Turkey and Persia during 1876-77, and extended to Resht in 1878. There was also a severe attack of plague at Kumaon, in India, in 1876; but this is, perhaps, only a coincidence—at least, I am aware of no line connecting it with the spread of the disease to the westward.

This analogy gives us strong reasons for fearing a continuation of the advance of the present epidemic into Europe. And it is well to face the danger seriously, before we find ourselves actually involved in it; for by this means we not only secure time for a quiet discussion of measures that have been found effectual in former times, either in stamping out the disease or in checking its dissemination, but also the knowledge that Government is aware of the danger, and is fully prepared against an attack, cannot fail to engender that confidence which is the best possible antidote to the panic which a severe epidemic is so likely to produce.

The earliest methods which we find employed against the spread of epidemic diseases, and especially against the plague, are briefly these: exclusion of the affected from entering any town or village; the isolation of the sick, and the desertion of any place once infected, leaving the sick to die alone and uncared for—a method which has found an illustration as late as 1876 in the Himalayas.

In the middle ages, and even up to the present day, among continental nations we find a strict and irksome system of quarantine adopted; but the inclination to evade the restriction is so strong, that it generally proves ineffectual. In the present day nearly all British authorities concur in the opinion that anything like strict quarantine in an open civilised State is impracticable, and the Government have wisely substituted a system of inspection, which may be considered as a reform of quarantine rendered necessary by the extension of commerce and the rapidity of transport, and justified by the advanced knowledge of sanitary science. It retains the essential, whilst omitting the impracticable parts of quarantine, in restraining the dissemination of disease.

By the inspection regulations the isolation of the affected in special hospitals is very wisely directed; but, at the same time, as no restrictions are placed on the intercourse between the hospital attendants and the outside world, an opening of considerable danger to the public still remains, which seems to admit of being remedied without serious inconvenience, by the isolation of the hospital attendants as well as of the sick (with the exception, perhaps, of the medical officer).

The nature of the special hospital must be suited to circumstances. Special wards in general hospitals are inadmissible; while separate buildings in the vicinity of general hospitals would be convenient, if we could insure the isolation of the attendants. Furthermore, large hospitals become in themselves a source of danger.

From these reflections we are led to the conclusion that the best form that these special buildings can take is that of small houses, as much as possible in open spaces.

What I found answer best, under similar circumstances of cholera epidemic in India were tents, which could be removed to fresh ground when the original site had become vitiated.

In this climate wooden huts or iron buildings would be more suitable, and could be kept in store, whilst one or two might be erected on any site that might be determined upon on the imminent approach of the disease. The erection of these temporary hospitals, even in the vicinity of inhabited houses, would meet with less opposition if it were recognised

(c) Population of Bagdad:—Shiah Mohammedans, 70,000; Jews, 20,000; Christians (chiefly Chaldeans) and Soonnee Mohammedans, 60,000; total, 150,000.

as a temporary expedient against an epidemic—not an endemic—evil, and if the danger involved to the patient from the fatigue of a long transit was thoroughly understood. It is said by some whose opinion deserves attention, that this may be applied to small towns, but not to London. So much the worse for London. It is the penalty of grandeur. But even here much may be done to minimise the danger and avert panic.

For the position of special hospitals in London three sites suggest themselves. First, the river, in which hospital ships can be prepared; secondly, the commons in the suburbs; and thirdly, in the event of a severe epidemic, perhaps even one of the parks might be utilised.

Dr. Dickson's report of the medical treatment is not so complete as that of the symptoms and course of the plague. Many say that when the poison has once entered the system we know of no remedies to avert its fatal action. This is a mistake. In the most intense instances, when the vital energies are totally prostrated, and death ensues in two or three hours, remedies are powerless; but, fortunately, such cases are rare. We have not recognised the individual germ, but we know its action on the vital organs, and we know remedies by which diminished or increased action may be strengthened or restrained, and the vital energy maintained, pending the elimination of the poison by the natural functions, on which alone recovery depends. The great importance of careful nursing is here apparent, in fostering the strength accumulated in the body, and augmenting it by assimilated nourishment, and by the avoidance of fatigue, by which the *vis medicatrix naturæ* may be assisted, and time gained to enable her to eliminate the poison.

The experience gained in the treatment of the analogous disease, typhus fever, will be of great value to the physician at the bedside of the plague patient. I speak from experience of the treatment of the disease, having met with it at Meerut in 1837.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

BIRMINGHAM GENERAL HOSPITAL.

TWO CASES OF GASTRIC VERTIGO.

(Under the care of Dr. RUSSELL.)

THE first of the two following cases affords an apt illustration of the disorder named at the head of this paper: the connexion between the gastric symptoms and the attacks of giddiness was clear. The nature of the disease in the stomach (? duodenum)—an ulcer—not, so far as I know, a frequent source of the irritation in the stomach from which the vertigo takes its origin, though the severe pain which occurs in gastric ulcer, and was specially prominent in my patient, would afford ample explanation for the vertigo here associated with it by giving rise to the derangements (vaso-motor or other) to which the symptom in question is ordinarily ascribed.

In the second case, the connexion between the two classes of symptoms is not so indisputable; the vomiting which attended certain of the fits was as likely to be cerebral as primarily gastric, as indeed often occurs in Ménière's disease;(a) but the presence of difficulty in digestion was well pronounced. Of course, in this case as in the preceding one, some proclivity in one of the vaso-motor centres, or in some other part of the nervous tract involved, must be presupposed. In this connexion the family history of the first patient has a curious interest.

In both of the cases on which I am commenting the giddy attacks occurred in distinct periods, some of them separated by intervals of considerable duration. The changes in the form of the vertigo, from lateral to vertical, and *vice versâ* is worth notice; the vertical vertigo appears to have been the form most inconsistent with retaining the erect position in both patients. I would remark on one point in the history of the first patient—viz., that whilst the direction of the vertigo was indeterminate in the horizontal forms, in the vertical it was definite, and she always fell in the same direction. One other circumstance has to be mentioned in the history given by the first patient. In certain of the fits of falling she became unconscious. In the ordinary falling fits, it is to be presumed, the vaso-motor nerves in the vertebral plexus were alone concerned. The patient fell as instantaneously as the patients quoted by Dr. Woakes (*Practitioner*, April, 1878), who had received bullet wounds involving the brachial plexus; but in certain other fits the cardiac nerves were also involved through the inferior cervical ganglion, and the coma of a faint was induced. In the present instance the symptoms established a clear distinction between syncope and an epileptic attack, but cases can be easily imagined in which the diagnosis would be less easy.

M. Charcot has recorded cases of Ménière's disease truly formidable in their persistency and urgency (especially *Le Progrès Médical*, December 11, 1875). In the present instances the disease is far less serious, chiefly on account of its occurring with long intermissions; but the large portion of the patient's life covered by the liability to recurrence renders the malady one of no inconsiderable importance.

My third and fourth cases are added rather to illustrate the variations to which this class of disorders is liable, and also because they exemplify the peculiar involvement of the nerves from the brachial plexus referred to by Dr. Woakes in the above-mentioned paper.

Case 1.—*Gastric Ulcer—Recurring Attacks of Severe Pain—Repeated Hæmatemesis—Vertigo, Lateral and Vertical, in corresponding Paroxysms, occasionally attended by Unconsciousness—A Family History probably of Similar Disorders.*

Martha S., aged twenty-eight, has been subject to pain at the epigastrium, often severe, from her twentieth year. The pain has come on about two hours after a meal, and has usually lasted for two hours; it has never been attended with vomiting, though she has felt nausea. The pain left her for a time at the end of twelve months, but returned two or three years afterwards. Since that period she has again enjoyed a term of immunity of two or three years, but has suffered more severely during the last eight or ten months. She has had three attacks of hæmatemesis—one soon after the pain began; a second last summer, on which occasion she came into the hospital under me; and she was re-admitted on February 1 for the third attack, when the quantity of blood vomited was much smaller.

During the last five years she has been liable to very troublesome giddiness, and most especially since the occasion of the vomiting of blood last summer, the stomach pain having also increased in severity at the same time. The vertigo is sometimes present for an entire day: "All the things seem to go round with me, but I don't appear to move myself." Sometimes, however, the form of vertigo changes from the horizontal to the vertical, or, as she describes it, "they come down," illustrating her meaning by moving her finger downwards in front of her face; and this vertical form of vertigo is always attended with instant falling, an occurrence never associated with the horizontal form. In the latter case she can go about the house, but "when it pecks I fall directly," and this may happen more than once during the day. In the horizontal form the direction of movement is indeterminate. She always falls backwards.

There is clear evidence that in some of these falls, but in some only, she loses consciousness; she never struggles nor bites her tongue, nor does she sleep after the fit. There is no warning other than the "pecking," and the fall is instantaneous. In the fit she becomes very pallid and cold, and the description of her condition presents every character of a faint. The attacks are brief in duration. In the evening before her admission she had had three faints, and was so much collapsed that Dr. Malet, our House-Physician, credited her with having lost much more blood than was really the case. The vertigo is never relieved by lying down; on the contrary, when it comes on she is obliged to sit up or walk about, possibly influenced by the situation of the gastric ulcer.

Now, the giddiness and the faints are indissolubly bound

(a) Dr. Malet tells me of a patient, in whom a simple examination of the external auditory meatus always caused vomiting. The phenomena of ear-cough are familiar (*vide*, especially, a paper by Dr. Lockhart Clarke, *British Medical Journal*, January 15, 1870).

up with the gastric symptoms; they always occur together. Neither the vertigo nor the faint has ever occurred unless the pain has been present, and both have been more urgent since the pain has become worse. She has much wind, and she always observes that if she gets up the wind, the faints get better. She has never had hysteria, nor headache, nor palpitation; she has never suffered from noises in her ears nor from deafness; hearing, auditorial and perosseal, is perfect (tested by the tuning-fork); her urine is free from albumen; the sounds of her heart are pure. She is well nourished, though inclined to anæmia. Menstruation is regular. She has had two children, and has never miscarried.

Her family history is remarkable, as related to her present ailment. She has two brothers and one sister. A brother and the sister have pain in the stomach, and the brother "goes giddy with it." Her mother suffers from indigestion and fainting fits, but has no pain. Since the patient's readmission she has been on milk diet, and she has been quite free from pain, and also from vertigo.

Case 2.—Distinct Series of Giddy Attacks coming on at long intervals, through nine years, in a Man, the subject of Indigestion, the Vertigo exhibiting different forms at different times.

Benjamin P., aged twenty-eight. He has been subject, on different occasions, to a series of attacks of vertigo ever since his nineteenth year. He had only three single attacks during the first three years; then they occurred with greater frequency. Again he was free for three years, then a series of a month's duration took place, to be again followed by three or four years' immunity. At the period of his presenting himself at the hospital he had been suffering from a recurrence of the attacks for eight weeks.

His description presents some interesting varieties in the form of the vertigo. On the first occasion, as he went to lift his head off the pillow in the morning, he felt very sick and giddy, and the objects in the room went round. The next attack, a fortnight after, was of the same character—horizontal vertigo, with vomiting and a little headache. Then, in about three years, after some threatenings, the third fit occurred, but with "a pitching forwards." He did not fall, but threw himself back, caught hold of something, and by screwing up his nerves the attack passed off. In this series the fits were all of the same kind: "the things went forwards instead of going round, as if everything was going down before my eyes." Since this occasion there has been an intermixture of lateral and vertical vertigo. All the attacks have been conformed to one or other of the types I have described, with one exception. On that occasion he was in bed: the giddiness came on very slowly; the place went down slowly forwards, then the direction was reversed, and he seemed himself to be going gradually backwards, as if his heels were going up in the air; then he appeared to be taken sideways, as if one leg, and then the other, were going up; next one shoulder seemed to go down, and then the other. The first attack of the present series took place whilst he was poking the fire; "he went head first, but knew what was happening, and, having his senses about him, he threw himself back." The attack passed away in a few minutes. Consciousness has never been lost. He always vomits with the first bout of the fits; "he gets the wind very badly, and always vomits." The first one of a bout serves to clear the stomach, and then he does not have the sickness.

He has had some noise in his ears, but not much. He had bad earache five years before his first fit, and went to the Ear Institution and had his ears syringed. The pain has never returned, nor has he ever had discharge from the ears. Hearing, as tested by the tuning-fork, is good. From the beginning of his ailment he has suffered much from indigestion, with heaviness at the stomach after eating; his food remains as a weight on his stomach two or three hours after a meal. His stomach, he says, is as weak as a child's; and I had evidence of this being the case during his attendance. On one occasion he had been drinking vinegar to free himself from weight at the stomach after a mutton chop. He is a well-made, muscular man; his optic discs are healthy; the sounds of his heart are pure; his urine is free from albumen, but it generally deposits a sediment. He denies having been intemperate, and says that although at one time he smoked too much tobacco, he has much reduced the quantity since becoming liable to these attacks.

One of his sisters died of fits. This is the only instance of nervous disease in his family of which he is cognisant. He declined to enter the hospital, and I failed to effect much improvement in his condition, whether by dieting or by medicine. He gained most good from bismuth, and soon after he ceased to attend.

Case 3.—The third case occurred in a servant of one of my patients, aged about twenty-two. She had been subject for two years to a sudden sense of constriction across the upper part of her sternum; her heart then begins to tumble over, and she gets a feeling of numbness down each arm; she then frequently falls, but not always, and if she falls she loses consciousness. From what was told me by an intelligent fellow-servant, there was no special pallor in the fits, and the pulse at the wrist was distinctly sensible. She has only once been conscious of any vertigo, and then the room seemed to go round with her, but she has singing in the ears with the attack. There was no evident relation between the attacks and her food, excepting that on one occasion she had just eaten an egg; nor is there evidence of indigestion, though for two months her urine had deposited red gravel. Menstruation was regular. Her heart-sounds were normal. There was no albumen in her urine. She had all the appearance of a healthy woman. The fits ceased soon after my attendance began, now six or eight months ago, and have not returned. I regret that I have not noted my prescriptions.

Case 4.—I add a notice of another case, in which vertigo was entirely absent, for the purpose of illustrating that the same kind of stimulus may traverse different tracks in different cases, producing corresponding difference in symptoms. A young woman, whom I saw with Dr. Scurrah, of delicate constitution and nervous tendency, has for some time been subject to attacks of cardiac disturbance in connexion with stomach derangement. There is no vertigo; she has palpitation, faintness, and sinking at the epigastrium, and a peculiar sense of weight and of weakness in the arms. I do not know of any vascular phenomena connected with the last-mentioned sensation.

CASE OF ACHING KIDNEY (DUNCAN).

(Under the care of Dr. RUSSELL.)

A married woman, aged forty, was admitted for subcutaneous hæmorrhagic blotches scattered over her lower extremities. She also complains, and at times with much urgency, of pain in one or other lateral region of the abdomen, extending on the left side towards, and sometimes under, the edge of the ribs. The pain is on one side only at a time, mostly on the left; it is described as being a dead, aching pain, occasionally, however, shooting across the abdomen, and sometimes it causes a sick feeling. It is worse when she is erect, and especially after exercise, but she is not always free from it when in bed. There is entire absence of any evidence of urinary irritation of any kind; her urine is clear, only thick occasionally; she has never passed gravel. Deep pressure made over either kidney produces decided pain, but careful physical examination fails in disclosing any outward change in those organs. The menstrual functions are performed naturally, save for occasional lumbar pain, and for increase of the pain already described. She has no leucorrhœa.

My colleague Dr. Malins reports that the uterine organs are healthy but for the presence of some cervical catarrh. I have made repeated examinations of the urine, without finding any abnormal condition, with the exception of a single fibrinous tube-cast on one occasion, and two or three on another. There are numerous leucocytes in every specimen, but as these are accompanied by abundance of vaginal epithelium, they doubtless owe their presence to the uterine catarrh. The urine has twice given a slight reaction for pus with liq. potassæ.

The pain began after her last labour, a severe one, ten years ago, as soon as she got about. It has remained with her ever since, but has been less the last two years, and chiefly after over-exertion. She had purpuric blotches seven years ago, but they were evanescent; and on the present occasion the ailment was trifling. But she has had protracted sanguineous discharge from the uterus some time ago, through four years. There has been no other form of hæmorrhage except that she sometimes finds blood in her mouth in the morning. Her gums are not unhealthy. There is no history of hæmorrhages among members of her family, nor does the microscope disclose any unhealthy condition of blood.

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Medical Times and Gazette.

SATURDAY, MARCH 8, 1879.

THE ARMY MEDICAL DEPARTMENT.

When commenting, in October last, on the report of Lord Cranbrook's Committee on the Army Medical Department, we pointed out that some parts of the report seemed to indicate that, in the opinion of the Committee, the easiest, if not the only, way of solving the difficult question before them was to do away, more or less completely, with the executive ranks of the Department, and employ civilians instead of military surgeons. The Committee was appointed to inquire into the causes which prevent a sufficient number of eligible candidates coming forward for her Majesty's Army Medical Department, and to point out the remedies which might appear to be called for. Their report recommended several remedies, but they had apparently but little faith in the efficacy of them; and they had so much dread of the increased expenditure that the adoption of some of them would cause, that they made many suggestions for the employment of civilians to attend soldiers, they expressed an inability to see "that there is any recondite knowledge necessary for a military surgeon which is not requisite for a civilian," and the last of their proposed "remedies" was a recommendation that the numbers of the executive ranks in the Department be reduced. A year ago the Secretary of State for War had to acknowledge that the Army Medical Service had become so unpopular that it was useless to issue the usual half-yearly advertisements for candidates, and the entrance examinations were suspended: nearly six months have passed since the War Office made the report to which we have referred: the country is engaged in two not little wars, and, in order to supply the necessary medical aid to our soldiers, in one at least of these wars, we have had to supplement the supply of military surgeons sent out with a considerable number of civilians; and yet no action has been taken on the report of the Committee, no new Medical Warrant has yet been issued. Moreover, the Secretary of State for War stated on Monday last, when moving the Army Estimates, that at least some months longer must elapse before any attempt can be made to render the Army Medical Service popular, and to fill up the vacancies in it. The gallant Colonel who now holds that office said, indeed, that the matter was one of great urgency; but he has not yet been able either to decide what ought, or to find out what can be done. All the comfort he had to give our soldiers—supposing that a strong Army Medical Department would be a comfort—on this head was, that "he was not without hope he might be able to get the assent of the authorities to the issue of the Warrant before the next examination (of medical candidates), which would be in August." It is a wonder that, during the discussion that followed Colonel Stanley's speech, no member of Parliament inquired if Government considered it necessary to have any military surgeons at all; or did not at the least advise him to boldly cut down the executive ranks to such a number as would just suffice to fill up vacancies in the administrative branch. He would then get rid, in a way, of the terribly dreaded increase of the cost of the Army Medical Department. There would of course be a large increase of expenditure for civil medical aid, but that would come, perhaps, into some other estimates than those for the Army, and so might, for a time at least, escape notice; and, should any question be raised as to the efficiency of the civilian medical aid to our soldiers, the Secretary for War could justify it by quotations from the report of the War Office Committee. The matter in question, however—the efficiency and popularity of her Majesty's Army Medical Service—is a very grave one (none more grave can well be imagined), and it is eminently unsatisfactory to learn that Colonel Stanley is still so far from having arrived at any clear opinions on the points in dispute. He admits that *the* question is, whether it is possible to revert, in any degree, to the regimental system; and he allows that, were it possible to retain the advantages of medical officers being attached to regiments while carrying out the general hospital system, a great deal might be said for such a proposal; but, he says, "it is a matter of money," and, unless it can be done within reasonable cost, the general hospital system in its present form must be adhered to. We should say that any expense that is necessary to make the Army Medical Service thoroughly efficient would be a reasonable expense. Then, with regard to the two grievances, as to exchanges, and as to the inconvenience resulting from frequent changes, all that Colonel Stanley had to say was that "*if* the Medical Department were full, and the conditions of the Service were altered, exchanges might be facilitated; and the Director-General was convinced it was possible to keep medical officers at the same station longer than had heretofore been the case." But no other grievances were touched on, and no promises of amendment were made. The Colonel knew, in fact, so little what to do in the matter, that he had not in the Estimates taken the full amount that would be necessary to meet the requirements of the new Medical Warrant; and he could only hope to be able to get the Warrant out some time before August next. It might have been expected, considering the condition of the Army Medical Department, that such a do-nothing statement, such an apparent want of comprehension of the vast importance of a sufficient supply of properly trained medical officers for our troops, would have excited indignant criticism and remonstrance. But the Secretary for War knew the House of Commons better, and probably calculated that so long as he showed a due tenderness of regard for the national purse, any slowness of action or seeming neglect would escape criticism or be pardoned. And he was right. Of the many members who took part in the discursive conversation that followed his speech, not one appears to have taken any notice of the condition of the

Medical Department, or to have made any comment, hostile or otherwise, on his statement with regard to it. It is difficult, however, to believe that some member of Parliament will not soon demand from the Government some explicit statement as to the measures that have been taken, or are about to be taken, to provide fully and efficiently for the medical care of the Army.

HEALTH OF THE TROOPS IN INDIA.(a)

By direction of the Secretary of State for India, the annual returns of the Native Armies of Madras and Bombay, and the gaol statistics of these Presidencies from the end of the year 1876, will be included with the similar returns from Bengal, so that the statistics of health, etc., for the whole of India will for the future be included in one volume. This change rendered it necessary to close, with the returns of 1876, the series of annual compilations having reference to the Bengal Presidency only, so that the former of these two volumes contains tables of statistics for the European troops of all three Presidencies, and for the native troops and gaols of the Bengal Presidency only, collected from the Annual Reports of the Sanitary Commissioner with the Government of India, from 1871 to 1876, in which they have appeared as appendices. These tables will prove of immense value for future reference, as they form a complete record of sickness and mortality among the communities concerned, and the most careful labour has been expended in their compilation to insure correctness.

The latter of the two volumes contains a series of short reports illustrating the diseases which prove most fatal to European soldiers at different ages, and in different Presidencies; and the influences of age and Indian residence on mortality and invaliding, showing how each affects the results, and how the two act together. And it will be found that there are but few points in connexion with sickness and mortality among British soldiers in India, on which information is likely to be wanted, which have not been taken up and discussed with a thorough knowledge of all the facts. The statistics prepared by Surgeon-Major Bryden also afford ample and satisfactory evidence of the great benefits which have accrued from increased attention to sanitation. Thus, the death-rate of the European Army in India averaged only 17·62 per 1000 per annum during the five years 1871-75, although in 1863 the Army Sanitary Commission fixed 20 per 1000 as the death-rate which ought eventually to be attained. Among the European troops in the Bengal Presidency the death-rate has fallen from 29·30 per 1000 during the five years 1861-65, to 18·50 per 1000 during the five years 1871-75. The ratio of invaliding has also been reduced during the latter period to 42·50 per 1000, from 49·66 in the preceding five years.

Section four of this volume, which gives "the Cholera History of the Years 1875 and 1876, illustrating how the area of Hindostan when unoccupied is re-invaded by epidemic cholera," will be read with much interest since it furnishes a summary of the observations made during the periods referred to, with Dr. Bryden's comments on them. "The rapid recurrence of epidemics," he remarks, "is one of the characteristics of the cholera of our time; in the past eleven years five new epidemics have moved on Northern India—viz., in 1864-65, 1866-67, 1868-69, 1872, and 1875. Every one of these epidemics is said to have had some distinguishing geographical feature, and the course of each of them is duly mapped out." Dr. Bryden is adverse to the theory that cholera is introduced or spread by human agency; he says—"Whether human intercourse was the cause of the first appearance of the epidemic from the Himalayas to Southern India in the spring of 1875, need not be discussed. The local observers are content to admit that it did not appear by any such agency, and local reports only suggest the possible effects of human agency subsequent to the re-appearance of cholera in their districts"; and he instances the case of Hoshungabad, where cholera appeared in the same week in 1818 and 1875, the town being in the one year the centre of a wilderness, and in the other a station on the Great Peninsular Railway, no contingency necessitating the intervention of human intercourse as explanatory of the fact. Cholera in India, the report says, occupies vast areas in successive epidemic leaps, and many communities are simultaneously attacked, but it does not overstep epidemic limits, and troops can, therefore, be so placed as to insure their immunity when the epidemic advance occurs. The Sanitary Commissioner with the Government of India has investigated the facts in regard to the propagation of cholera in communities in sixty-seven instances during 1875, and he comes to the conclusion that in no case was there evidence of the importation of the cholera or of attack due to communication with the sick. Such investigations, Dr. Bryden observes, tend to show this, if nothing more: that in communities which we can observe, and in which there is every opportunity of knowing the actual facts, there is little, if any, tendency of the disease which we call cholera, and which we assert primarily to show the effects of an air-born miasm on the system, to spread from one man to another by mere contact. On a wider scale, and equally appreciable, is the fact here illustrated, that a non-invaded area remains free from cholera, the miasm, which we assert to be air-borne, refusing to be introduced into new tracks by human agency, or to overstep by a mile the limits prescribed to the invading epidemic by natural agencies.

The labour expended in preparing the contents of these two volumes must have been very great, and it was only an act of justice on the part of the Governor-General of India in Council to desire that the acknowledgments of the Government of India might be conveyed to Dr. Bryden for the valuable work he had so successfully completed.

(a) Reports bringing up the Statistical History of the European Army in India, and of the Native Army and Gaol Population of Bengal, to 1876, and the Cholera History of 1875 and 1876, in continuation of Reports embracing the period from 1817 to 1872. By Surgeon-Major James L. Bryden, M.D., Bengal Army, attached to the Sanitary Commissioner with the Government of India. Calcutta. 1878.

CONCHININ *SEU* QUINIDINE.

From careful observations made in Professor Wagner's Clinic at Leipsic, Dr. Adolph Strümpell recommends quinidine as a surrogate for quinine. This alkaloid is isomerous with quinine, and has the formula $C_{20}H_{24}N_2O_2$, and was first extracted from quinoidine in 1848 by Van Heyningen. Pasteur gave it the name of quinidine in 1853; and in 1868 O. Hesse proposed that of "conchinin," owing to the adulteration of the commercial quinidine in the German market with cinchonidine.

Conchinin or quinidine is employed in medicine as the sulphate, which crystallises in long shining prisms. It is soluble in chloroform, alcohol, and hot water, but soluble with difficulty in cold water. Its purity is tested by dissolving one part of the sulphate in twenty parts warm water, adding one part iodide of potassium, and filtering after cooling. If pure, ammonia gives no precipitate or cloudiness when added to the filtrate.

Wunderlich appears to have been the first to make therapeutical experiments with quinidine in 1855; and he declared that "its effects were almost identical with those of quinine." For some reason or other, however, he gave it up; and for the last ten years it has not been used in the hospital at Leipsic

Lately, owing to the exertions of Jobst of Stuttgart, experiments have been again made with it on a large scale by Machiavelli in the Italian military hospitals, and Professor von Ziemssen at Munich, in both cases with success.

It should be noted that the price of the purest quinidine supplied by Jobst was a third less than that of quinine in the autumn of last year. The cases treated at Leipsic with conchinin were fifty in all, chiefly intermittent fever and typhoid, and to a small extent pneumonia, erysipelas, puerperal fever, and phthisis.

In typhoid fever its effects are equal, and in some cases superior, to those of quinine. Within an hour or two the fever declines, and the lowest temperature is reached in from eight to twelve hours. A dose of 1·0 to 1·5 grammes reduces the fever on the average 2° to 2·5° C., but falls of 3·5° to 4°, and once of 4·5°, have been observed. The dose need not be larger than one of quinine, and at Leipsic they give it in solution in peppermint-water, with a little dilute sulphuric acid. The rise of temperature which follows the fall produced by quinidine takes place slowly, and in favourable cases the original height may not be reached again for twenty-four to thirty-six hours, or even longer, and even then the next morning remission may be greater than it would otherwise have been.

The frequency of the pulse falls with the temperature, but not by any means always parallel with it. The greatest drawback to quinidine, especially with typhoid patients, is the subsequent vomiting which very often occurs. It takes place in from a quarter of an hour to two hours afterwards, and is best controlled by ice or a few drops of tinct. opii. Ringing in the ears, perspirations, and collapse are rare—in fact, the latter symptom occurred only once in a typhoid patient who accidentally swallowed 4·0 grammes conchinin, and who died seven days afterwards, though whether from severe ulceration of the bowel or from the effects of the drug is doubtful. In intermittent fever (twenty cases) conchinin in 1·5 to 2·0 gramme doses, given six to twelve hours before the fit, acted *exactly like quinine*. A somewhat smaller dose before the second attack, and daily doses of 0·5 to 1·0 for a few days afterwards, completed the cure. Only one case relapsed. In erysipelas, croupous pneumonia, and puerperal fever, conchinin acts precisely like quinine; on the other hand, the fever of phthisis resists its influence as it does that of other similar remedies.

THE WEEK.

TOPICS OF THE DAY.

A CASE of death from the administration of chloroform formed the subject of an inquiry last week, which was held by Mr. Harris, coroner for the Sittingbourne district of Kent. The deceased, a child aged eight years, named Wakely, while crawling on the floor, ran a needle into his right knee, and on attempting to pull it out a portion of it broke off. Mr. Penfold, a surgeon, was called in, and ordered the usual treatment; after a few days inflammation supervened and a large abscess formed. Mr. James Shuter, of St. Bartholomew's Hospital, was consulted, and it was agreed that, an operation having to be performed of a long and painful nature, chloroform should be administered. Mr. Penfold administered the chloroform, and Mr. Shuter performed the operation; it was completed and the dressing applied, when a sudden change was observed in the patient. The usual means were immediately adopted, but without avail; and Mr. Shuter having deposed that there was no disease of the heart discovered on previous examination, the jury returned a verdict of "Death by misadventure."

Our contemporary the *Globe* states that the authorities have decided to attach a medical officer to each regiment employed on active service at the Cape of Good Hope, in addition to those employed in the several field hospitals, the regimental and general unification systems being thus worked together. If this statement be correct it must be supposed that Colonel Stanley is making an experiment, as the statement is at variance with the opinions expressed by him in moving the Army Estimates last Monday night; unless it was foreshadowed by that portion of the speech which said, "we look upon the attachment of medical officers to battalions as a luxury of the service, and assent to it only on the distinct understanding that it does not interfere with the general hospital system." It remains to be seen how the two systems will work together at the Cape, but we much fear that, if the reports should be satisfactory, the prejudices of those in power are too strong to permit them to adopt the one concession necessary to make any new Warrant for the Army Medical Department generally satisfactory.

The Gas Committee of the Corporation of Salford, Manchester, after considering the subject of Gas *versus* Electric light, has resolved to recommend the Corporation to apply to Parliament for power to light the borough by electricity. The Corporation at present manufactures its own gas, but through a series of untoward events it has never made much profit. The General Purposes Committee of the Council are to take the recommendation into consideration.

In the Chancery Division of the High Court of Justice, last week, a rather important decision was given in the case of Bramwell *v.* Lacy. The plaintiffs, being the reversioners of a house in St. John's-gardens, Notting-hill, moved to restrain the defendants, the Committee of Management of the Hospital for Diseases of the Throat and Chest, Golden-square, from continuing to carry on a branch or "outpost" of the Hospital at the foregoing address, in breach of a covenant contained in a lease under which the defendants were in possession. In support of the plaintiff's case the covenants of the lease were read, and witnesses were called to depose to the fact that the outpost was in itself a nuisance and an annoyance to them and their property. The Master of the Rolls, in delivering judgment, said that the covenant was peculiar, but he was clear as to its meaning. In his opinion this outpost was in the nature of a business, and on the evidence it appeared that some of the diseases treated were of an offensive, if not of an infectious character; and it appeared to him that it would be an annoyance to the neighbourhood to be constantly liable to meet with patients suffering from such diseases. He had no doubt such a hospital was a very useful institution, but that was not the point before him. It was a question of the construction of the covenant, and in his opinion a breach had been committed, and therefore the plaintiffs were entitled to an injunction with costs; but the injunction was not to be enforced for two months.

The Caterham Spring Water Company has succeeded in reaching the lower greensand at Caterham at the depth of 851 feet from the surface, and an abundant supply of pure water is now flowing from it, which will shortly be utilised in the district. The boring operations were commenced on July 29 last with a boring of eighteen inches diameter, and the lower greensand was reached last week with a diameter of fifteen inches, solid cores of the strata passed through having been obtained. Other borings are being put down by the New River Company at Turnford and Ware to prove the lower greensand at those places; while the Lambeth Water Company is putting down a bore-hole at Ditton to test the depth of the chalk basin at that place. The boring at Caterham was undertaken by the same company who

successfully proved the lower greensand at Meux's Brewery, Tottenham-court-road, in 1877.

The recent infliction of snow to which the metropolis has been subjected has found the authorities, as usual, in a total state of unpreparedness. In some parishes, indeed, an attempt was made to clear the streets, but in others the emergency was not dealt with at all; and Sir Mordaunt Wells, of Belgrave-road, applied to Mr. D'Eyncourt at the Westminster Police-court, for process against the Vestry of St. George's, Hanover-square. He stated that in the Belgrave-road the snow had been lying for five days, and there had not been the slightest attempt on the part of the Vestry to remove it. It was impossible for a carriage or cab to pull up within three or four feet of the kerbstone, and, consequently, ladies were compelled to alight in the road and wade through ice and snow on to the pavement. There were hundreds of people out of work, but only one or two men had been seen attempting to clear out the gutter, but they had not interfered with the bulk of the snow. The messages he had sent to head-quarters had been utterly disregarded, and he wished to know if any process could be taken against the Vestry. Mr. D'Eyncourt said he could not see how he could interfere, and Sir Mordaunt Wells suggested that perhaps an intimation from the magistrate to the surveyor would have a beneficial effect. Mr. D'Eyncourt agreed to adopt this course, and promised to communicate at once with the surveyor of the parish. We may add that the Whitechapel Board of Works succeeded in clearing their main thoroughfares immediately after the fall of snow. They had men engaged at work from four on Friday morning to six on Saturday evening, the clearance being effected at a cost of £45.

The agitation on the subject of the water-supply of the metropolis has by no means been set at rest by the decision of the Metropolitan Board of Works not to introduce a Bill into Parliament for acquiring the interests of the various Water Companies. At St. Martin's Vestry Hall, last week, a meeting of the representatives of the metropolitan vestries was held for the purpose of considering the question. Mr. Edward Watherston presided, and in introducing the subject asserted that in respect of its water-supply London was one of the worst provided towns in the kingdom. The quantity was limited, the quality indifferent, and the cost extortionate. He quoted some carefully prepared statistics to show that the earnings of the water companies were enormous, and that the powers conferred on them were antagonistic to the interests of the rate-payers, and he counselled a thorough earnestness on the part of the vestries and district boards to bring about a cheap and good supply of water for London. In conclusion he moved that, "Whereas great complaints have for some time past been expressed in the various localities of the metropolis supplied by the water companies, owing to the water-rates having been considerably increased without any apparent justification, it behoves the consumers to institute inquiry, and collect information, with a view to obtain the means of insuring an equitable adjustment of the burden by taking such steps as the circumstances may require." The foregoing and several other resolutions bearing on the subject were put to the meeting and carried, and the conference adjourned to the 27th inst.

The cost of the maintenance of pauper lunatics formed the subject of discussion at a meeting of the Exeter Board of Guardians held last week. The Finance Committee recommended that a cheque be drawn for £986; the Chairman observed that £633 of that sum was required for the maintenance of pauper lunatics for the quarter. That was at the rate of £2500 a year; and in addition there was the cost of travelling to and from the Fisherton Asylum at Salisbury, which was not much less than £200 a year more. It was resolved to call the attention of the Town Council to the advisability of establishing an asylum for the city.

At the annual meeting of the Governors of the Southport Convalescent Home, held at Southport on the 26th ult., the report stated that the trustees of the Lancashire Cotton Famine Fund had determined to enlarge the present building and add a new wing, at a cost of £40,000. The Chairman stated that he was in hopes the building operations would commence in a month or two. The Mayor of Southport suggested that her Majesty should be asked to give the institution her gracious patronage; and that a more comprehensive name should be bestowed upon it, since patients are received into it from no less than six northern counties.

It is with much satisfaction that we are able to announce that the differences which had arisen between Mr. Hussey, the Oxford City Coroner, and the authorities of the Radcliffe Infirmary in that town, are now amicably adjusted. It will be remembered that the chief cause of these differences was the arrest of Mr. Horatio P. Symonds, one of the Surgeons of the Infirmary, because he was not present at an inquest to give evidence which is usually given by the house-surgeon. This action on the part of Mr. Hussey was considered such an abuse of his judicial functions, that, acting on the advice of his friends, Mr. Symonds at once commenced legal proceedings against the Coroner. Mr. Hussey has now tendered to Mr. Symonds an ample public apology for his hasty conduct, and has agreed to pay the preliminary costs of the action-at-law; and, with the full concurrence of the authorities of the Radcliffe Infirmary, Mr. Symonds has accepted these conditions, so that it is to be hoped an end has now been put to the disagreements in Oxford between the Coroner and the medical profession, to which we have, unfortunately, more than once had to call attention.

The third annual meeting of the Metropolitan and National Nursing Association was held on Saturday last at Grosvenor House, the Duke of Westminster presiding. The report was read, showing that the receipts of the past year amounted to £4918, and the expenditure to £3951. No less than 1604 persons have been attended in the four districts under the supervision of the Association, and his Grace expressed an opinion that the work which had been accomplished was well worth the expenditure. The adoption of the report was proposed by the Earl of Shaftesbury—who maintained that the wisest thing that persons not possessing ample means could do was to turn their attention to nursing as a means of employment for their daughters,—and, being seconded by Earl Percy, was unanimously agreed to. Sir Charles Trevelyan moved that it was desirable to make arrangements to enable the Association to work in unison with provident dispensaries, and he remarked that the distinctive feature of this Association was not to remove the sick member of the family, but to nurse the patient at home, and thus respect the natural feelings of the poor. This resolution was carried, and a vote of thanks to the chairman terminated the proceedings.

THE MEDICAL ACTS AMENDMENT BILL.

The Medical Bill introduced by Government does not improve on acquaintance. Anyone possessed of a knowledge of recent efforts at medical legislation may detect in it traces, we think, of various sources of inspiration in its composition; and parts of it betray carelessness, or want of a clear comprehension of intention, on the part of the draughtsman. On the whole, however, the measure appears to have been devised with two principal objects, and might well be described as a Bill for the purposes of the compulsory establishment of Conjoint Examining Boards, and of facilitating the admission of medical women to the Medical Register; if, indeed,

it might not be still more correctly said that the latter purpose is *the* great object of the Bill, to which the former is only a subsidiary necessity. We do not intend at present to criticise the measure generally—there will be plenty of opportunities of doing that; but we propose to mention one or two points upon which we think strong representations are sure to be made to the Government. In Clause 19, making "general provisions as to scheme for medical board," it is required that a scheme shall also provide for paying out of the examination fees "the expenses of the examinations, and of carrying into effect the scheme, and for applying the surplus towards the support of such museums or libraries under the control of any of the medical authorities, or *of such public object as the General Medical Council consider to be of so great importance to the promotion of increased knowledge in medicine or surgery as to merit that support.*" The italics are our own, and we suspect that the provision as emphasised will be much objected to. The Royal College of Surgeons of England is at any rate very likely, we should think, to resist the conferring of any such power on the Medical Council as is thereby given. It will be remembered that the Council of the College appointed, a while ago, a committee to watch medical legislation, and that committee will no doubt at once take the new Bill into consideration, and will jealously criticise any part of it that may seem to threaten any of the interests of the College. Sub-clause 4 of Clause 15, on examination rules, appears in a new shape. It requires that the examination rules "shall provide for the admission of women to the examinations, and may make such distinctions (if any) as may be judged proper between the cases of men and women, so, however, that the examinations of men and women be in all general respects equal." This will certainly be objected to. If the clause means anything, it means that women-candidates may be exempted from examination in certain subjects, that is, that the area of examination in surgery and anatomy may be limited in their case. But it has been, and no doubt will again be, contended that a limited examination cannot be equal to an unlimited one; that it implies a limited qualification, and that a limited qualification ought not to admit to the General Medical Register. Clause 24, the penal clause, does not distinctly prohibit the assumption of such compound titles as surgeon-dentist, dental-surgeon, or similar designations, by persons not possessing any surgical qualification. This omission will not escape the notice of the surgeons practising dentistry. Many other points in the Bill invite criticism, but we must defer any further remarks to a future occasion.

A NEW DENTAL ASSOCIATION.

A GENERAL meeting of the dental profession was held on Monday last, under the presidency of Mr. Tomes, for the purpose of considering "a proposal in favour of the promotion of a permanent representative association." We do not know if the meeting was a very large one, but, at any rate, it may be said, in the daily-press slang of the day, that it was "influentially attended," as many very well known dentists, metropolitan and provincial, took part in the proceedings. After business connected with the Dental Reform Committee had been despatched, Mr. Edwin Saunders moved—"That a society be now established under the title of the British Dental Association, whose object shall be to watch over and further the general interests of the profession with especial reference to the proper carrying out of the provisions and spirit of the Dentists Act, 1878, and with full authority to organise special committees for the establishment and administration of a Dental Benevolent Fund for the assistance of infirm and disabled members of the profession, to be supported by members' special subscriptions, and for any other object that may seem desirable." The resolution was seconded by Mr. H. Barrett, and was unanimously agreed to, and other resolutions for the purpose of carrying it out were passed. The new Association is to be framed on the lines of the British Medical Association, we suppose, and we understand that a scheme is to be drawn up by a committee appointed for the purpose, and submitted to the Association at its first meeting, and that in future there will be annual meetings or congresses, and so on. Whether the project is a wise one or not, and whether it is likely to promote union among the dentists or not, are matters for the consideration of the dentists themselves. We offer no opinion on the subject, but we observe that the *British Journal of Dental Science* is of opinion that "it will require the utmost caution and circumspection, on the part of the committee who are about to frame the rules of this new British Dental Association, to prevent it from becoming the nucleus of a body wholly separated from the medical profession," and that that journal views "this most momentous step with serious misgivings as to the result." The Benevolent part of the project is, we suppose, for the formation of a charitable fund similar to the Medical Benevolent Fund; not for the promotion of anything like a scheme of mutual assurance? A scheme of the latter kind would certainly prove a failure.

THE ENGLISH PLAGUE COMMISSION.

WE understand that the Government have, in deference to the opinion expressed by the Royal College of Physicians, decided to send out "more than one member of the medical profession" to the East of Europe, for the purpose of investigating the nature of the disease called the "plague"; and have, on the recommendation of the College, appointed Surgeon-Major Colvill, of the Bombay Army, and Dr. J. F. Payne, of St. Thomas's Hospital, as the British Commissioners for that purpose. Surgeon-Major Colvill has had exceptional opportunities of studying the plague in Persia, and the College of Physicians have done well in taking advantage of his being at home on leave to secure his services; whilst, we need hardly add, Dr. Payne is well known as one of the most earnest and accomplished of the younger pathologists of the day. We believe that there has been some misconception as regards the remuneration recommended, and agreed, to be paid to these gentlemen for their services. We understand that all their expenses of every kind will be paid by the Government, and that they will receive an honorarium of five guineas a day; but that the total honorarium to be paid to each of them is not to be less than four hundred guineas.

THE SICKNESS AMONG THE TROOPS IN CYPRUS.

THE Secretary of State for War went at some length, in his speech on the Army Estimates, into the statistics of the sickness among our troops in Cyprus, with the object of showing that, by comparison with other stations, it was not so exceptionally unhealthy as had been generally believed. The forces there had, he could not deny, suffered from fever, for the most part of a malarial kind; and the admissions to hospital had been very high, though not, happily, the death-rate. There were 34 deaths in all, of which 19 were due to fever, 5 to sunstroke, 5 to "dejected system" (whatever that may mean), 1 to debility, 1 to diphtheria, and 1 to consumption. The average number of men in hospital was 19 per cent.; and the deaths were at the rate of 37·29 per 1000. September had been the most unhealthy month, and there had been a great improvement in health after the cold weather had set in. The death-rate at Bombay was stated at 35 per 1000, and in Bengal at 43. But a rate of disease had often occurred far exceeding the rate

during the short period of our occupation of Cyprus, though no doubt our troops landed there at a very unhealthy period of the year. In the Mauritius, prior to 1857, the admission-rate was 815 per 1000, and the death-rate nearly 40·95; but sanitary measures at the Mauritius had greatly improved the health of the troops. In the Ionian Islands, in 1817, the admission-rate was 1378 per 1000; in 1836 it was 985, and the death-rate 15 per cent.; and in 1863 the rates had dropped to 684, and 8: and that was considered literally one of the best stations in the Mediterranean. On medical and other grounds he trusted that the rate of disease in Cyprus was mainly owing to exceptional circumstances, and he had every reason to hope that the sanitary state of the island might be brought to fully equal, if not to surpass, other Mediterranean stations. It must be observed, however, that sanitary science was almost in its infancy at even the latest dates quoted by Colonel Stanley; and that he did not show, or attempt to show, that any due care had been taken to provide the troops sent to Cyprus with either huts or the best form of tents for such a climate, or with proper supplies of good food.

ST. PANCRAS VESTRY AND INFECTIOUS HOSPITALS.

The Vestry of St. Pancras recently called upon their Clerk and Medical Officer of Health to report upon the question of providing hospital accommodation for persons of the non-pauper classes suffering from infectious diseases. These gentlemen have given it as their opinion that the original proposal of the Metropolitan Asylums Board, that there should be a central authority for the provision of hospital accommodation for the treatment of all persons suffering from infectious diseases, whether paupers or not, is the proper one, but that in that case the Asylums Board should cease to be a Poor-law authority, and should become instead a sanitary authority. The Asylums Board have themselves pointed out that, although the patients admitted into their hospitals have been pauperised for the purpose of obtaining such admission, 90 per cent. had never before received parish relief. If, therefore, the suggestion that a new board should be formed by metropolitan sanitary authorities, to provide accommodation for non-pauper patients, were adopted, it would necessarily follow that during an epidemic the Metropolitan Asylums Board hospitals would be comparatively empty. The report suggests, therefore, that the machinery now available should be retained in the hands of the Metroplitan Asylums Board and that this Board should be elected by the sanitary authorities, instead of by the boards of guardians. Further, that every sufferer, irrespective of his ability to pay, should be admitted to the hospitals, leaving to the Board to arrange for payment in cases of persons able to pay; and in the cases of persons who are actually paupers, they could either, as in the case of poor children at School Board schools, be relieved from payment, or the cost could be charged to the boards of guardians of the parishes or unions to which they belonged. The general expenses of the Board should be met out of the general rate, under the Metropolis Management Act, as is the case with the School Board rate, and not out of the poor rate.

THE PREVENTION OF DISEASE IN DUBLIN.

Following their recent report on the comparatively high death-rate in Dublin, Dr. Cameron, the Medical Officer of Health, and Dr. Mapother, the Consulting Medical Officer, have addressed to the city authorities a further report on the causes of urban mortality, with such suggestions for their abatement as seem most practicable. Many diseases and excessive mortality they show to be the result of damp; people in Dublin, they add, habitually wear boots and shoes altogether too light, so far as the soles are concerned, to resist the action of the damp pavements of the city. They therefore suggest the introduction of asphalte pavement, as it readily dries, and does not allow the wet to penetrate, so that the soil beneath is preserved from soakage. Further, these gentlemen recommend that all new houses should be built on an asphalte foundation, a material which would prevent the ascent into the interior of underground foul air and damp, both fertile causes of disease. The removal of the great number of dilapidated houses in Dublin is also advocated, and a strict investigation for the purpose of discovering defective sewer arrangements, by means of the latter of which typhoid fever, sore throats, and diarrhœa are so generally spread. We have not space to record all the recommendations contained in the report, but the attention of the authorities is directed to house-disinfection, water-supply, removal of street manure, mud, and vegetable refuse, the close inspection of slaughter-houses and dairy-yards, and sanitary education in primary schools, as a few of the means whereby mortality may be lessened; and as the Public Health Committee have already begun to deal with several of these items, it is predicted that a corresponding decrease in the amount of preventable disease will be the result of their exertions.

FRAUDS ON THE ADELAIDE HOSPITAL, DUBLIN.

The Committee of the Adelaide Hospital met on Tuesday, February 25, and the following day, to investigate the accounts of Mr. James Franklin, the Assistant-Secretary, in which serious deficiencies had been discovered, amounting to £1500 or upwards, against which the Hospital holds only about £300 security, although the post of Assistant-Secretary is worth £200 a year. The defalcations have been going on for a considerable time, and the mode adopted was very simple. The Assistant-Secretary entered in the cash-book from time to time larger amounts than he lodged in bank, and altered the figures in the bank pass-book to agree with his fictitious entries. When the Committee had compared his book with the bank account he erased the false figures from the pass-book. It seems strange that from the clumsy way the erasures were done, if no other check existed over the accounts, the manipulation was not noticed long since. Suspicion was not aroused until Saturday, February 22. The Assistant-Secretary has absconded, and is believed to be at present in Switzerland, with which country no extradition treaty exists for offences such as embezzlement.

THE MEDICAL SOCIETY OF LONDON.

The general annual meeting of this Society, for the election of officers and Council, and for general business, was held at the Society's rooms on Monday, the 3rd inst. Two silver medals were awarded—one to Dr. C. Theodore Williams, the retiring Librarian, in recognition of special services rendered to the Society; and the other to Mr. J. Astley Bloxam, the outgoing Secretary, also for special services rendered during his term of service. The Fothergillian Gold Medal, offered for the best essay on "The General Paralysis of the Insane," was not awarded. The subject chosen for the Fothergillian Essay in 1881 is "The Relative Value of the various Antiseptics in their Applications to Medicine and Surgery." The financial condition of the Society is reported as being very satisfactory. The following is the list of the officers and Council elected for the session 1879-80:—*President:* John Cockle, M.D. *Vice-Presidents:* Sir Joseph Fayrer, K.C.S.I.; Clement Godson, M.D.; C. Theodore Williams, M.D.; W. F. Teevan, F.R.C.S. *Treasurer:* Thomas Harvey Hill. *Librarian:* H. Royes Bell, F.R.C.S. *Secretaries in Ordinary:* F. de Havilland Hall, M.D.; D. H. Goodsall, F.R.C.S. *Secretary for Foreign Correspondence:* T. S. Dowse, M.D. *Council:* William Adams, F.R.C.S.; J.

Wickham Barnes, F.R.C.S.; J. Astley Bloxam, F.R.C.S.; Percy Boulton, M.D.; T. Lauder Brunton, M.D.; Thomas Bryant, F.R.C.S.; G. C. Coles; A. E. Cumberbatch, F.R.C.S.; W. H. Day, M.D.; John Lowe, M.D. (King's Lynn); Francis Mason, F.R.C.S.; William Rose, F.R.C.S.; H. E. Sewill; Gilbart Smith, M.D.; Heywood Smith, M.D.; J. C. Thorowgood, M.D.; Joseph Walker, M.D.; Erasmus Wilson, F.R.S.; Alfred Wiltshire, M.D.; J. C. Wordsworth, F.R.C.S.

THE GENERAL MEDICAL COUNCIL.

The members of the General Medical Council have been summoned to meet on Tuesday, the 18th inst. We do not know that any special business has been named in the summons-paper, but of course the first matter taken in hand will be the consideration of the Medical Acts Amendment Bill, though we trust that it will not be made to occupy the whole of the session. A meeting of the Executive Committee will be held on Monday, the 17th.

THE HEALTH OF THE FRENCH ARMY.

We have before us an abstract of the statistics relating to the health of the French troops in 1876, which were laid before the Chamber of Deputies by the late Minister of War, General Borel. They show that the mean effective strength of the army for that year was 405,000 men, and of these 107,235, or 238 per 1000, were admitted into the hospitals as sick. Though this is not a satisfactory state of things, the army is at any rate healthier than it was in 1869, before the Franco-German war, when there were 319 sick per 1000. On the other hand, the number admitted to the infirmary, in contradistinction to the hospitals, shows a steady increase from 1862 to 1876, and was 127,199 men, or 317 per 1000, in the latter year. The total mortality in 1876 was 4642 men, or at the rate of 11·45 per 1000 for the whole army. As a fact, the deaths were by no means equally distributed over the different *corps d'armée*, being in the proportion of 15·17 per 1000 in the Fourth Corps, which had the highest, and 7·12 in the First, which had the lowest, mortality. For this difference the insanitary state of the barracks in certain parts of France seems certainly to blame, since 1675 of the 4642 deaths, or more than one-third, were due to typhoid fever. Phthisis only caused 746, and other lung diseases 710 deaths, and there were fewer suicides (122) in 1876 than in any year since 1862, a fact which speaks well for the attention of the authorities to the comfort of the soldiers. We think, however, that motives of economy by no means justify the way in which the French soldier is treated in the matter of towels. Our readers may be startled to learn that though expected to wash himself, he has not a single towel allowed him to dry himself with, and he therefore has the alternative of going unwashed, or of using as towels the sheets off his bed, or his pocket-handkerchiefs, of which unhappily he has only *two!* Under these circumstances we only wonder chest affections, &c., are not more prevalent in the French army than they are. The amount of sickness from typhoid fever is in any case quite inexcusable with our present knowledge of its causes and transmission.

MEDICAL PALIAMENTARY AFFAIRS.

The Plague: Quarantine.—In the House of Lords, on Thursday, February 27, the Duke of Richmond, replying to the Earl of Carnarvon, said that no official confirmation of the report alluded to, of the appearance of plague at St. Petersburg, had been received by the Government. Quarantine being part of the law of this country, the Government were determined to see it effectually carried out, whatever might be said against it.

Canal Boats Act.—In the House of Commons, on Tuesday, March 4, Mr. Price asked the President of the Local Government Board whether he had any information with regard to the operation of the Canal Boats Act of 1877, especially with regard to the alleged neglect of registration. He desired to know if boat-owners and the sanitary authorities were generally endeavouring to carry out the provisions of the Act. Mr. Sclater-Booth replied that the Act was in operation in many parts of England; but in other parts it was not being carried into effect. He would be happy to give any further information on the subject.

Sale of Milk.—Lord George Hamilton, in reply to Mr. Read, said that the order requiring registration of dairies, cowsheds, etc., was not intended to comprise farmers who only sell milk to their neighbours and labourers in addition to their general farming business. The local authority is called upon to exercise some discretion as to the class of persons required to register. The Privy Council will consider whether this provision for registration may not be made more clear.

VOLUMETRIC ESTIMATION OF SUGAR BY AN AMMONIATED CUPRIC TEST,

GIVING REDUCTION WITHOUT PRECIPITATION.(a)

By F. W. PAVY, M.D., F.R.S.

To be able to effect the quantitative determination of a body with accuracy and facility is an important matter looked at in relation to the study of its bearings. In the case of sugar there are no reliable means of precipitating and weighing it, either alone or in combination, and thus in the chemical estimation of this principle an indirect method has to be resorted to. The only property upon which dependence can be placed, for the purpose of chemical quantitative analysis, is its reducing action, under the influence of heat, upon certain metallic oxides, and that of copper is the one which general experience shows to answer best.

In the ordinary volumetric application of the copper test, the precipitation and diffusion of the reduced suboxide through the liquid interferes with the clear perception of the precise point of complete decoloration, and thus detracts from its delicacy. For purposes where minute accuracy is of no moment, a sufficiently approximate result can be obtained, but for physiological investigation, and in other cases where precision is indispensable, the process is quite unfit for employment.

With the view of obtaining increased accuracy, chemists have had recourse to the plan of collecting the precipitate of reduced suboxide and weighing it as such or after reconversion into the oxide. From the difficulty, however, that exists in procuring the metallic oxide in a pure and uniform state, and from the impossibility of completely freeing the filter paper used from adhering surplus copper solution, some uncertainty is given to the results obtained by this method. To obviate the difficulty here presented, I suggested, in a paper published in the *Proceedings of the Royal Society* for June, 1877, that the precipitated suboxide should be collected and dissolved, and the copper subsequently thrown down by the agency of galvanic action upon a platinum cylinder, as is now frequently done in the assaying of copper ores. The process has been found, as shown by the closeness observable in the results of counterpart analyses, to admit of the greatest precision, and I have turned it to extensive account in some recent physiological investigations I have conducted. In its application to such a purpose, it may be held that time and labour should be considered as of no moment, but it frequently happens that a more ready process of estimation is needed than the gravimetric supplies, and on this account a volumetric method, free from the objection I have pointed out as belonging to the ordinary plan, constitutes a desideratum.

A few years back, Bernard introduced, for physiological purposes, a modification of the ordinary volumetric process, which is attended with reduction and the non-precipitation of the reduced oxide. The process involves the employment of a large quantity of caustic potash, and the presence in the product to be tested of extraneous organic matter. Under these circumstances it happens that the reduced suboxide is held in solution instead of being allowed to fall, and thus decoloration without precipitation occurs, and enables

(a) Read before the Royal Society, January 16, 1879.

the point of disappearance of the colour of the test to be ascertained with precision. Bernard, in his remarks upon the test, simply made mention of the fact that, under these conditions, reduction without precipitation took place, but Dr. D'Arsonval,(b) his *préparateur* at the College of France, refers the effect to the solvent influence of the extraneous organic matter in presence of the alkali.

Whilst engaged upon an inquiry into the merits of this test, the conclusion suggested itself to me that the agency preventing the deposition of the suboxide was the development of ammonia. With an absolutely pure solution of sugar, such as may be obtained by inverting the ordinary crystallised cane sugar (refined loaf sugar), no amount of potash will hinder the instantaneous precipitation of the suboxide. With commercial grape sugar, however, and in a still more marked manner with honey, interference with precipitation is temporarily exerted, and this, I am led to conclude, is due to the action of the potash in producing ammonia from the small quantity of nitrogenous organic matter incidentally present.

With this before me, the idea presented itself of resorting to the direct employment of ammonia for attaining the same result. It is well known to chemists that ammonia is a powerful solvent of the suboxide of copper, leading to the production of a perfectly colourless liquid; and this, from the facility with which it absorbs oxygen, quickly assumes a blue colour under exposure to air from the reconversion of the cuprous into the cupric oxide.

If ammonia be added to the ordinary Fehling's solution, a liquid is obtained which is rendered colourless by boiling with a sufficiency of sugar to effect the complete reduction of the cupric oxide present to the state of suboxide. As the saccharine product is dropped in, the blue colour gradually fades, without any occurrence of precipitation to interfere with the perception of the precise moment when the point of complete decoloration is attained. The ammonia exerts no interference with the process of reduction, but simply dissolves the reduced oxide, leading, when complete decoloration is effected, to the production of a perfectly colourless, limpid fluid.

Enough ammonia must be present to secure that the suboxide is held in solution, and precaution must be taken that, whilst the analysis is being performed, the reduced oxide does not become reconverted into the oxide by exposure to the air. To obviate this the operation should be conducted in a flask instead of an open capsule.

The appliance that naturally suggests itself as most suitable for employment is a flask of about eighty cubic centimetres capacity, with a cork inserted into the neck, through which a delivery-tube from a Mohr's burette, graduated in tenths of a cubic centimetre, passes for dropping in the product to be examined. Through the cork, also, there must be an exit-tube for the escape of air and steam from the flask. Should it be desired to avoid the impregnation of the surrounding atmosphere with ammonia, the exit-tube may be connected by vulcanised tubing with a U-shaped tube containing fragments of pumice-stone moistened with water or a weak acid. The burette being fixed in the stand, the flask is allowed to hang suspended, so that there may be nothing to obstruct the full view of its contents. The heat is applied by means of the flame of a spirit-lamp, and the best position for watching the disappearance of colour is by the light reflected from a white background specially provided for the purpose. It is convenient to have another burette, graduated in cubic centimetres, and of 100 cubic centimetres capacity, fixed in the stand for holding and delivering the ammoniated copper solution. Messrs. Griffin, of Garrick-street, have constructed an arrangement adapted to meet the requirements.

I at first took it for granted that in the action occurring the same relation existed between the amount of oxide of copper reduced and that of sugar oxidised, as under the employment of the copper test in the ordinary way—viz., that five atoms of oxide of copper were reduced by one atom of sugar; and the liquid I first employed was prepared by adding to 100 cubic centimetres of Fehling's solution 300 cubic centimetres of strong solution of ammonia (specific gravity 880) and 600 cubic centimetres of distilled water. The liquid thus made contained one-tenth of Fehling's solution, and if it comported itself in the same manner as the latter, ten cubic centimetres of it would stand equivalent to 0·005 gramme of grape sugar. In working with this liquid the results obtained were so accordant in relation to each other that I had no misgiving about its uniformity of action: but I felt that before being definitely accepted they ought to be checked against known amounts of sugar. The accomplishment of this proceeding, however, is not altogether unattended with difficulty, on account of the uncertainty of obtaining grape sugar free from impurity and in a perfectly dried state.

The method I have adopted has been to operate upon weighed amounts of cane sugar and produce inversion by boiling with an acid. I first found that the cane sugar, which is sold in coarse colourless crystals—that which is known as "white crystal," and used for sweetening coffee—stood the test on examination for purity with Laurent's polarimeter. A weighed quantity was taken, and, after being inverted by boiling with hydrochloric acid, the acid neutralised, and the liquid brought to a known volume, subjected to treatment with the ammoniated copper liquid. Repeated trials were made with varying quantities, and it was found that the results stood in harmonious relation to each other, but that the amount of sugar indicated was larger than the calculated amount of invert sugar from the weighed quantity of cane sugar taken. At first I was at a loss for an explanation of this result, but subsequent observation has revealed that, in the case of the ammoniated liquid, six atoms of oxide of copper are appropriated by one atom of sugar, instead of five, as in that of Fehling's solution used in the ordinary way. When the reckoning is made upon this basis the results exactly correspond with the actual amount of sugar known to be present. Moreover, with solutions of ordinary grape sugar and diabetic sugar, examined comparatively with Fehling's solution used in the ordinary way and the ammoniated copper liquid, the results exactly accord under the reckoning that five atoms of oxide of copper are appropriated in the one case, and six atoms in the other, by one atom of sugar.

To be quite satisfied upon this point, a large number of observations under varying conditions have been made, and whilst what I have stated holds good for the ammoniated copper liquid prepared from Fehling's solution, without any further addition of alkali, and with the addition of potash to the extent of 1 gramme to 20 cubic centimetres of the ammoniated test, yet a larger quantity of potash alters the action, and with 5 grammes, and anything beyond, the behaviour is brought to the same as that of Fehling's solution used in the ordinary way—viz., 5 atoms only of oxide of copper are appropriated by 1 atom of sugar. With quantities of potash between the 1 and 5 grammes, the results stand between the five and six atoms of cupric oxide.

I may mention that observation has further shown that whilst glucose prepared from starch behaves like other varieties of grape sugar, there is an intermediate product formed before the completion of the process of conversion, which behaves in a different manner from invert sugar, grape sugar, and sugar of diabetes. Estimations made with the ammoniated copper liquid coincide with those made with Fehling's solution without the presence of ammonia, and the addition of potash to the ammoniated liquid produces no modification of the result.

In order that the ammoniated copper liquid may be brought to the same standard of sugar-value as Fehling's solution—and it is desirable that this should be the case—the proportion of copper must be increased so as to give six atoms against five. By taking 120 cubic centimetres of Fehling's solution, 300 cubic centimetres of strong ammonia (specific gravity 880), and making up to a litre with distilled water, the proper proportion is obtained, and the ammoniated liquid gives results corroborated in accuracy by the balance, and coinciding with those obtained by Fehling's solution employed in the ordinary way.

As a minor point it may be remarked that the diluted state presented by the ammoniated liquid offers an advantage by diminishing the liability to error arising from any want of absolute precision in measurement.

Twenty cubic centimetres of the ammoniated copper solution, corresponding with 0·010 grammes sugar, having been run in from the burette containing the test, the flask is adapted to the cork attached to the delivery-tube of the other burette containing the saccharine product for examina-

(b) *Gazette Hebdomadaire de Médecine et de Chirurgie*, September 14, 1877, page 454.

tion. The flame of a spirit-lamp is then applied underneath, and the contents of the flask brought to a state of ebullition, and allowed to boil for a few minutes in order to get rid of the presence of air. The saccharine product is now allowed to drop from the burette until the blue colour of the test is just removed, and a perfectly colourless limpid state produced.

On account of the ammoniated copper solution used being only equivalent to two cubic centimetres of Fehling's solution, it is necessary that the product to be examined should not be in too concentrated a form. For delicate observation it is convenient that the dilution should be such as to require the employment of from about ten to twenty cubic centimetres to decolorise the twenty cubic centimetres of the ammoniated copper solution.

The ammoniated copper solution enjoys the advantage of possessing a self-preservative power. It is well known in the case of Fehling's solution that, in the course of time, not only does the liquid become impaired in stability, but actually reduced in strength, by the spontaneous deposition of a certain amount of suboxide. Not so, however, with the ammoniated liquid. Here the conditions are such that under exposure to air the copper cannot fail to remain in solution and to be maintained in a fully oxidised state. A further advantage is given by the influence of the presence of ammonia on the colour of the test, for, in proportion to the height of colour of a volumetric liquid, so is its degree of delicacy as a reagent, and the effect of the addition of ammonia to the ordinary copper test is to considerably increase the blue colour belonging to it.

Seeing that the test here proposed acts with equal efficiency either in the presence or absence of extraneous organic matter, it is alike adapted for employment by the chemist, the physiologist, and the medical practitioner in relation to diabetes.

REVIEWS.

Clinical Manual for the Study of Medical Cases. Edited by James Finlayson, M.D., Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary, etc.

II.

In a former notice of this manual our space was almost entirely occupied by a consideration of Professor Gairdner's contribution to the work—on what he called the "Physiognomy of Disease." That which is now to engage our attention is mainly the work of Dr. Finlayson himself. It will obviously be no easy task to follow the author through everything that he has written, but we shall endeavour to point out at least what seem to us prominent merits or defects. The first chapter of this part of the work is devoted to case-taking. Here, as it seems to us, the author does well to point out that, in examining a case with a view to a diagnosis and treatment, more than one method may be pursued. Thus the skilled physician will generally grasp some prominent symptom, and work from that in every direction; but for the beginner this method would be altogether unsafe; for him there is nothing but careful plodding, over known and unknown ground, until everything has been explored. But to do this thoroughly requires an amount of time and superintendence which can seldom be given by the visiting physician; and even if he could give it, such beating of the air is hardly justifiable when a large class is waiting for that mental food they have a right to expect from a master of his profession. Hence it is that, in our opinion, the art of case-taking should be taught separately and by itself, and that only the finished product should be laid before the physician. There is, however, a question as to the point where we should begin an investigation into a case of disease. Dr. Finlayson would have us begin with the system most essentially affected; but, as already hinted, though this may be a good plan for the skilled practitioner, it is not always so for the student. For him, on the whole, a rigid routine is preferable, lest he devote too much attention to what may seem, but need not be, the chief morbid element in the case. We have thus early, and in this connexion (page 37), an example, elsewhere frequently manifested, of a lack of power of clear expression on the part of Dr. Finlayson as writer and expositor. This in some places becomes so marked, that certain passages are altogether unintelligible—a defect which may, however, be remedied in a subsequent edition. The concluding portion of this chapter deals with the personal history of the patient. The plan recommended by Dr. Finlayson is to begin with the present illness and to work backwards. With this plan we can hardly agree. It is always well to put on record as briefly as possible the patient's own statement as to what caused him to seek medical relief, but this done, we hold it best to go back to the first beginning of things, to the family and personal history, and thence downwards to the present illness, and the examination of the existing conditions when the patient is seen. We are quite ready to admit that for ordinary practical purposes the former method is the readier, but that is not here the question: as we understand it, the real question is, how best to place on record a clear and logical statement of all that it is necessary to know of the past history of any individual being at the time of inquiry the subject of disease.

These preliminary details discussed, Dr. Finlayson proceeds at once to deal with certain special phenomena, such as temperature, pulse, and pyrexia generally. As regards the section on temperature we have only a word or two to say, and these refer to the normal temperature as given by Dr. Finlayson. In a table he places the normal line at 98·6° Fahr. or 37° C. This most will consider somewhat too high, for, taken in connexion with a statement made elsewhere, that "the human temperature has a daily range, during health, of two or three degrees of Fahrenheit's scale (say a degree and a half centigrade)," the assertion is somewhat extraordinary. According to it, we should consider a temperature of 101·6° Fahr. (nearly 102° Fahr.) quite normal! No one who has had any prolonged acquaintance with normal temperatures can accept this as correct; rarely, indeed, can it be an exception to the rule. We should say that both this and the section on the sphygmograph are illustrated by some useful diagrams, though it would have been well to have given some further explanation of the different parts of a pulse-tracing than is here afforded. Altogether, this chapter is a very good one.

Chapter IV. of the book is, to a great extent, devoted to cutaneous eruptions; and whilst admitting the impossibility of obtaining anything like a satisfactory grouping by looking to the causation of these, the author adheres to something of the old Willan and Bateman kind. There is given, however, an attempt at scientific classification of skin diseases by Dr. A. B. Buchanan, slightly modified by Dr. McCall Anderson, about which, perhaps, the less said the better. There are two very good figures of animal parasites here; we cannot say so much for the vegetable ones. In the same connexion are discussed the rashes of the various kinds of eruptive fevers, which are well handled. The latter portion of the chapter is devoted to affections of the joints; this is not in every respect satisfactory. What are we to make of such sentences as these?—"There is a form of disease termed 'purpura rheumatica,' in which further pains and fresh hæmorrhagic spots appear together." To what does the "further" refer? Speaking of syphilitic pains, the writer says, "The pains are often evidently present in the bones, and even in the head, as well as the joints." Are there no bones in the head? But the anti-climax is reached when he says, "This manifestation of syphilis has some value in judging of the history of a venereal complaint"—a proposition, we should think, few would venture to deny.

The next chapter is, perhaps, one of the most elaborate in the book. Like all the rest, it is a mixture of good and bad. It is at once too elaborate and too little so. Much contained in it might well be referred to in books of ophthalmology, whilst points which would well bear discussion are somewhat slurred over. To turn at once to the subject of squint, which is very elaborately handled. Now, we venture to say that all that the ordinary student wants, as regards squinting, in connexion with instruction in medicine, is a sound idea of what causes the squint or the double vision, looked at as a means of diagnosing the condition of the nervous supply of the eyeball. Hence, as it seems to us, elaborate details as to concomitant squint, primary and secondary deviation, and the like, are rather a work of supererogation. Moreover, were all the information conveyed as follows regarding concomitant squint, it would not be of much value:—"Strabismus having these peculiarities depends on a want of proper adjustment in the action of the muscles, or on a certain shortening of one or other of them: such a squint depends, in the great majority of cases, on errors in the refraction

of the eyes." This "dependence" may be intelligible after a time, but it constitutes another example of the want of clear expression we have already noted. The subject of double vision is also elaborately discussed, and we have two tables, one giving the functions of the various ocular muscles, the other the results of their paralyses. Here, as it seems to us, a few words of physiological or anatomical explanation would have been of much value, but they are not given. To the ordinary reader a statement to the effect, that to elevate the eye straight upwards the superior rectus and inferior oblique are called into play, is not by itself satisfactory. We may be perfectly willing to take Dr. Finlayson's word for it; but an *ipse dixit* is never so satisfactory, nor is its impression so lasting, as an explanation which carries conviction with it. So again, the statement that the superior oblique depresses and everts the eye, whilst the inferior oblique elevates and everts it, is perfectly correct, but it would carry greater force to the minds of most were the reason for this—that is, its dependence on the points of insertion of the two muscles—briefly noted. We have the like observation to make on the following statement:—"The following points being borne in mind, may help us to understand the variations in diplopia: When the tendency is to divergent squint the diplopia is 'crossed.' When the tendency is to convergent squint the diplopia is 'direct' (homonymous)." As an *aide mémoire* this may be of a certain kind of service: certainly it is not an aid to the understanding. Yet, after dealing with such subjects as we have briefly indicated, Dr. Finlayson comes to the sound conclusion that "when squint is not of paralytic origin it has not much significance to the physician."

Speaking of the results of paralysis of the third nerve, the author mentions, as one of them, "some defect in the power of accommodation." This hardly expresses the condition, any more than "a great deficiency in the mobility of the eye" does the complete loss of motion in it: there is no power of accommodation for near vision; the eye is set for distant vision. There are many other points in this connexion to which we might take exception, but we pass on; neither shall we allude to what is here said as regards the ear and the nose; but something must be said as to the author's remarks on the sense of taste. Thus, he says that the loss of taste is usually unilateral. This, as it seems to us, will entirely depend on the seat and kind of the nerve-lesion, especially whether central or peripheral. Neither can we agree with Dr. Finlayson that the chorda tympani is the true nerve of taste to the anterior part of the tongue; certain facts seem to favour this view, but as many go against it, and clearly the point is not yet settled. Especially we must not forget the notable influence this branch of the seventh has over the salivary glands and their secretion. There are so many points worthy of notice in this portion of Dr. Finlayson's book that we are most reluctant to pass them by. Some of the author's definitions we might object to, but there is only one we can here notice. Thus he says, "the 'muscular sense' is a name applied by some to the faculty we possess of judging of weight." Such is not our notion of the meaning of the expression: to our mind it implies something more especially a knowledge of the condition of a given set of muscles as regards contraction, and consequently of the position of a part or organ—a limb, for example—without looking at it. This is far more than a mere knowledge of weight or of resistance. A good many of the subjective disorders of special sense here described might have been omitted with advantage: some are useless, some elsewhere discussed. We pass on, however, to what is called the "Testing of the Cranial Nerves." This is the most imperfect part of the book we have yet discovered. Of the first, second, third, and fourth nerves we need say nothing; but as regards the fifth a good deal is here omitted. Thus, we have a bare reference to Meckel's ganglion, none as regards the otic; yet both supply important parts. As regards the sensory division, no mention is made of either temporal or auriculo-temporal branches, though both are all-important as regards neuralgia; neither is the reference to the influence it possesses over the nutrition of the eyeball altogether satisfactory. In connexion with the sixth nerve we fail to find any reference to the frequent association of paralysis of it with paralysis of the seventh when that is due to cerebral mischief, the two nuclei being close together. As regards the seventh, many important omissions are observable. We again miss any reference to the otic ganglion, to the influence the nerve possesses over the salivary glands, and especially to the varying symptoms according to the site of the lesion which causes the paralysis of the nerve. But whilst omitting these things, the author bestows on this nerve a function which we confess is new to us—viz., a motor power over the tip of the tongue, through the lingualis muscle. As regards the eighth nerve, it is here spoken of as going to the larynx: but in another part disorder of it is spoken of as giving rise to both laryngeal and *pharyngeal* troubles. Of the pneumogastric the author says little, but, inasmuch as he holds that diabetes is one of the results of disturbance of its function, he seems to have erred in what little he does say.

Chapter VI. deals with disorders of the nervous system. Much of this is very good, but certain parts want rearrangement. Thus, speaking of involuntary movements in paralysed limbs, the very first thing that the author notes is that chorea is very often accompanied by a certain degree of paralysis: weakness is here the preferable term, but anyway the subject should not be discussed as representing involuntary movements in paralysed limbs. Certainly paralysis is not the fundamental or the most prominent symptom. Various forms of tremor which might well be discussed together are, on the other hand, separated, whilst under the heading of "Shaking of Paralysed Limbs" paralysis agitans is discussed. Moreover, Dr. Finlayson seems to consider that this malady, if not identical with, is at all events similar to, the cerebral or spinal sclerosis seen in younger persons. Most observers seem to recognise somewhat important distinctions between the two. "Staggering in a most extreme form is often found in disease of the cerebellum," says the author. Well, in a good many cases staggering only very faintly expresses the condition, which is much more an inability to walk in a straight line, and a tendency to turn on an axis. It is curious to note also how, in speaking of locomotor ataxy, the author has tied his hands by giving such a narrow definition of the muscular sense. All, or nearly all, of the phenomena observable in connexion with this malady when the eyes are shut, may be referred to the loss of this sense. So too the height to which the feet are raised in walking on a smooth surface, or in stepping over the smallest obstacle; so too the stamping; whilst the feeling that the patient often complains of, that he seems as if he were walking on wool, appears to be referable, not to a simple anæsthesia, as Dr. Finlayson would have it, but to a loss of the sense of resistance—another form of muscular sense—further seen in loss of power in determining relative weights. The remarks on aphasia seem very good and very much to the point.

Two remarks will suffice on what is said regarding paralysis of the bladder. Curiously enough, the author does not refer to the retention of urine which so often occurs in fevers, apparently from sheer nervous debility, though he refers to the condition arising from unconsciousness in these maladies. Again, he refers to cystitis as often accompanying the incontinence of urine in paraplegia. He mentions alkaline urine, "often secreted in spinal paralysis," as a cause of this, but he does not say a word about its decomposition in the bladder. One thing has certainly surprised us in connexion with what Dr. Finlayson has to say with regard to paralysis of various kinds. We altogether miss any attempt at localising various kinds of cerebral lesions. The only exception is aphasia, which he refers to injury or disease of "the third anterior frontal convolution" (there is certainly no third posterior convolution): and this is rough enough; but surely cerebral localisation has gone far enough to be at least referred to in a work of this sort. This is one of the prime defects we have noted in this connexion.

Under the title of "Fits," a most heterogeneous variety of maladies is discussed or referred to, including what are called fainting fits, convulsion fits, hysterical fits, plastic rigidity, and so on. The word "fits" is here used in too wide a signification, and in a way that is not very common with us here, though perhaps more so in Scotland. Referring to uræmic coma, the author speaks of it as taking the place of uræmic convulsions. Very frequently, however, the two are associated. He speaks, moreover, of this as the most striking form of sudden coma. This may be true when the patient comes under observation for the first time; but, commonly, it will be found that the onset of this serious complication may be foreseen, or even predicted, if the quantity of urine—and especially the quantity of its solid

constituents—passed has been carefully noted. Very often the coma, or convulsions, of chronic alcoholism is really due to what we call "uræmic mischief."

Chapter VII., which is a short one, is devoted to the consideration of electrical instruments and their uses. On the whole it is satisfactory, but hardly enough weight is attached to the relative value of weak, medium, and strong currents used centripetally or centrifugally, and the relative effects of each as regards muscular contraction, which even normally are by no means identical. So, too, we find here explanations of certain German terms occasionally used, or the symbols of them, but we have not the English equivalents graduated in the same way.

Chapter VIII. is devoted to the consideration of insanity. As formerly mentioned, this is the work of Dr. Alexander Robertson, Physician and Superintendent of the Glasgow City Parochial Asylum. It is a good plain article, not too long, but containing much useful information. Lying, however, apart from that portion of the book which we have specially set ourselves to consider, we may be excused for thus cursorily passing it over.

A Handbook of Nursing, for the Home and the Hospital. With a Glossary of the most Common Medical Terms. By Catherine J. Wood. London, Paris, and New York: Cassell, Petter, and Galpin. Small 8vo. Pp. 280.

The authoress of this very practical little work has been "for the past fifteen years" on the nursing staff of the Hospital for Sick Children in Great Ormond-street, and writes from a full experience in nursing and in training nurses. She takes a high view of the work of a real nurse, and aims at placing "the standard of nursing on the very highest level, as being the Christian work of Christian women," and, in a good, short introductory chapter, she points out the spirit in which the work should be undertaken and carried out. The book is divided into sections. A and B treat of the qualifications of a nurse, and of general training. The qualifications insisted on as needed to make a thorough nurse are—presence of mind, gentleness and quietness, accuracy and carefulness, memory, observation, forethought, reliability and obedience, and promptness; and the remarks on general training are very good. C and D, on ward training and on the training of a sister or superintendent of nurses, are also good, and full of useful hints and practical details. Section E describes thoroughly and minutely the duties of a nurse, and is evidently the outcome of long and well-used experience. Section G, a very short one, gives valuable hints and warnings to sisters of wards on their duties; and Section H is on the work and responsibilities of night nursing, and is worth the attention of hospital authorities as well as of night nurses. Section J is a valuable and very instructive chapter on the nursing and management of sick children. The writer truly says—"The utmost watchfulness is demanded of their nurse; quick and accurate powers of observation; an intuitive knowledge of sickness, its signs and manifestations; and an inexhaustible store of patience, cheerfulness, control of temper, the power to enter into the heart of a child: for the child's eye is quick to discern its friends and to reject its enemies; and moreover, that sound judgment and common sense that can temper discipline with love, withholding with a firm hand the unwise indulgence, loving the child with a great unselfish love." Section F describes "the most common signs and symptoms of disease," and Section I gives "a few definite instructions on nursing special diseases": both are good and useful chapters. K and L contain sensible information, and hints on infection and on ventilation. The rest of the book includes a list of simple remedies; a list of poisons, chief symptoms, antidotes, and remedies; an explanation of the abbreviations commonly used in prescriptions; tables of weights and measures; and a very useful glossary of medical terms clearly explained.

Mrs. Wood insists on nurses attaining a high standard of knowledge, but she is very careful to warn them against presuming on their knowledge and experience so as to interfere with the doctor, or to disobey or neglect his instructions. She says—"Let not the nurse think that because she is acquainted with the outlines of human physiology, therapeutics, and pathology, that therefore she is competent to treat the grave maladies of the body, or to match her scant knowledge against the life-long study of the professors of the healing art. To do so is to bring into disrepute the intelligent nursing of the educated woman."

On looking through the book we have noticed a mistake here and there, as when in describing the character of the stools in jaundice, it is said that "they are *dark*, the bile being absent"; and here and there the sentences are long and rather confused. But these are slight blemishes, and may be easily removed in a future edition. The only real fault we have to find is with the preface to the book. Some of it is very highflown in style, as when the authoress says—"The fierce light of public opinion is beginning to beat upon our medical charities; surmisings and questionings as to the appropriation or misappropriation of these vast sums of money are surging in the public mind. The conviction is gaining ground that the hospitals exist either for the maintenance of an overgrown staff, for the glorification of charitable committees, for the scientific delectation of medical officers, for the pampering of overpaid untrained nurses, or for the pauperising of the working class." And we read with great astonishment the declaration that, "Take a walk around any of our palatial buildings, you will find the wealth lavished on the apartments of the staff, and the resources of the establishment strained to meet their exacting demands." Such a statement makes us wonder of what hospital the writer could have possibly been thinking. The preface had better be rewritten or omitted.

But the book itself is one of unusual excellence; and we strongly recommend it to all who wish to be, and indeed to those who already are, thoroughly trained and educated nurses.

Our Schools and Colleges. Being a complete compendium of practical information upon all subjects connected with Education and Examination recognised in the United Kingdom at the present day. Collated by F. S. De Carteret-Bisson, M.A., Capt. 1st Regt. R.J.M., F.G.S., etc. London: Simpkin, Marshall, and Co.; and at the Offices of the University Tutorial Association, 70, Berners-street.

Books do very often increase, and sometimes greatly, in size as successive editions come out, but this book is a most unusual instance of development and growth; and though it is, on the title page, termed "the fourth edition of Our Schools and Colleges," it must in reality be considered a new work, as it is enlarged from the third edition "by over 635 additional pages." Even the comprehensive title we have given above is hardly comprehensive enough to show all that the work contains; for it includes fairly full details of our Universities and their respective Colleges, of our "nine Public Schools," of the Military and Naval Schools, of all the endowed grammar, collegiate, proprietary, and private high- and middle-class schools that are scattered all over the kingdom; and gives particulars of the Civil Service Examinations, of the Theological Colleges, about the Inns of Courts and other Legal Examinations, and the Schools of Medicine, of Music, and of Science, and the Fine Arts. And it describes also other institutions in which pupils are prepared for the Services and the learned professions, and even the entrance examinations required at some banks.

The work must have cost an immense amount of time and trouble, and it would be wonderful if some errors could not be detected in it, and some improvements suggested. In looking through the pages devoted to the Medical Schools, we note that the list of the General Medical Council is an old one and far from correct. Dr. Stokes resigned his seat in May, 1877, and he died early in January, 1878, but he is named here as one of the Crown nominees. The list contains also the names of Mr. Lister, Dr. Allen Thomson, and Dr. J. G. Fleming, all of whom had resigned and been replaced by new members when the Council met in April last year. Dr. Apjohn did not retire till much later in the year, so it is not remarkable that his name remains on the list. With a little trouble Captain De Carteret-Bisson might much improve the account he gives of the Medical Colleges and Schools, and at the same time save space. There is some amount of repetition which might be avoided; and the notices of the Hospitals and Schools might with great advantage be given according to some uniform plan.

Many improvements will no doubt be made in the next edition of the work; and we strongly recommend that the

index of some 7000 names be made absolutely alphabetical, instead of only approximately so, as at present.

Alassio and its Climate. By Dr. Joseph Schneer. Turin: Herman Loescher. 1878.

This *brochure* is designed to attract public attention to the advantages of Alassio, a small town on the Italian Riviera, as a new winter resort for consumptives and other invalids. Our readers will find a description of the general aspects of the town and neighbourhood in the *Medical Times and Gazette* for 1877 (vol. ii., page 334), and we understand that there has been but little change to report since then, except that the hotel accommodation has improved to a certain extent. Dr. Schneer's observations on the kind of life patients should lead on the Mediterranean coast, in the first part of his little book, are judicious and to the point. When, however, he sounds the praises of Alassio in the second and third (and especially the third) parts, we think he lets his enthusiasm get a little the better of his judgment. Too little is as yet known of the climate to form a very positive opinion of it. We have temperature observations only for three or four years, which may or may not have been taken in a scientific way, but which certainly have not been treated quite scientifically by Dr. Schneer for purposes of comparison with the statistics of other health-resorts of the Riviera. Thus, if we look at the table of the "average temperature of the different stations of the Riviera," at page 89, we find that the hours of observation are not the same at any two of the places. For Mentone Dr. Schneer compares the readings of M. de Bréa at 6 a.m. with his own at 8 a.m., with the natural result of finding that the mean temperature of Alassio is higher than that of Mentone. On this principle it is clear that it is easy to get a mean temperature to suit your wishes wherever you like. The position and arrangement of Dr. Schneer's instruments is also not noted. The meteorological part of his essay is, in our opinion, the weakest; and we seem to have met with some passages in the section headed "Generalities," almost *verbatim*, in a book on "Nervi und sein Clima," by Dr. Moritz Thilenius, published in 1875. Some excuse may be made for small mistakes in an author's eagerness to see his work in print, but it is inexcusable to declare (page 86) that 8 a.m. and 10 p.m. are "hours in which invalids generally are *out of doors*"; "in bed" would have been much nearer the mark. "Oxigen," "betwem" for between, "mucous" for mucus, "bronchictis" for bronchitis, "hypophosphate" for phite, "hygieine" for hygiene, "monotonus" for monotonous, are all errors which might have been avoided with a little care; in fact, it would have been better if the proofs had been submitted to some competent English reader to correct the foreign style which sometimes makes the sense obscure.

In another edition the advertisement of "the Grand Hôtel d'Alassio" (why are foreign hotels always *grand*?) on the back of the cover should certainly be suppressed.

Ledwich School of Medicine, Dublin.—On Thursday, the 27th ult., a special meeting of the students and staff of the Ledwich School of Medicine was held, for the purpose of passing a resolution in reference to the lamented death of Mr. Edward Ledwich, who was for many years Registrar of the School. Dr. Wharton, Senior Lecturer on Surgery, presided. Dr. Mason, having given an interesting biographical sketch of the late Mr. Ledwich, and having traced the history of the School from its foundation by Mr. Kirby in 1810, moved—"That the earnest sympathy and condolence of this meeting of the students and teachers of the Ledwich School of Medicine be presented to the representatives of Edward Ledwich, Esq., F.R.C.S.I., on the loss they and we have sustained by his demise." Dr. W. H. O'Leary, M.P., said it was with very great pleasure he seconded the resolution. He was sure that, like himself, they had all felt deeply the weight of Dr. Mason's words; and he was sure that he (Dr. O'Leary), an old pupil of the school, and a late colleague of Dr. Ledwich, shared with them in full the sympathy conveyed in the resolution. The resolution was adopted. Dr. Foot having been called to the second chair, a vote of thanks to Dr. Wharton for presiding was passed, on the motion of Dr. Mason, seconded by Dr. Nixon. The proceedings then terminated.

GENERAL CORRESPONDENCE.

MR. CARTWRIGHT AND THE DENTAL HOSPITAL.

Letter from Mr. S. Hamilton Cartwright.

[To the Editor of the Medical Times and Gazette.]

Sir,—A very erroneous statement has appeared in another medical journal, in which reasons are ascribed to me for resigning an appointment which, had they a vestige of truth in them, might affect the interests of the Association of Surgeons Practising Dental Surgery, which interests have impelled me to explain that which would have been otherwise unworthy of regard.

My reasons for resigning the Lectureship in Surgery at the Dental Hospital in Leicester-square were entirely personal and private, and had nothing whatever to do "with a series of movements about to be inaugurated by the Association of Surgeons Practising Dental Surgery."

As a member of the Committee of that Society, I can safely affirm that such a proposition as that of founding another "Dental Hospital and School," or of forming "a British Dental Association," has never even been broached.

The existing Dental Hospital has done good service to the profession, and a majority of its members are fully qualified medical men—reasons why another school would be unnecessary; whilst I should oppose the formation of a special association as being calculated to bring about that separation between special and general surgery which I have ever strongly deprecated.

With the remarks concluding the paragraph I concur, for I am convinced that the Association of Surgeons Practising Dental Surgery may by judicious and liberal measures do much to elevate the profession generally—a consummation especially to be desired at the present time, when the most uneducated empirics and charlatans are permitted to place their name on the Dental Register by the Medical Council, a body who, though bound to protect the interests of the whole medical profession, seem, in this case, to require no proofs of education, efficiency, or respectability. Instead of instituting, as Dr. Quain, Sir William Gull, and others have proposed, a high standard of their own to regulate the admission or rejection of candidates for registration, they accept the *ipse dixit* of persons, the appearance of whose names upon the register is an injustice to those who, not being fully qualified, have worked hard for the Licentiateship in Dental Surgery, and now find their diploma ignored and their names placed in juxtaposition with such a profane and ignoble crowd.

I am, &c.,
S. Hamilton Cartwright,
Professor of Dental Surgery, King's College.

32, Old Burlington-street, February.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, February 5.

W. S. Playfair, M.D., F.R.C.P., President, in the Chair.

Ovum Forceps.

Dr. Hickinbotham exhibited a new forceps for the removal of an ovum or retained portion of placenta from the uterus. The blades, instead of having the usual scissors-like action, are connected by a weak spring like sugar-tongs. By this arrangement great delicacy of touch is obtained.

Intra-Uterine Stem.

Dr. Hickinbotham also showed a new intra-uterine stem, having, instead of the usual disc at its base, a pair of wings which are parallel with the stem while it is being introduced, but spring apart subsequently, thus rendering the introduction of the stem into the vagina easy.

Dr. Aveling considered the finger far better than any form of forceps for removing an ovum. If any forceps was used Dr. Rasch's was perhaps the best, as the finger formed one blade of the instrument.

Mucous Membrane of the Uterus immediately before Healthy Menstruation, associated with a Graafian Follicle Ruptured apparently three or four days.

Dr. Galabin showed the ovary of a healthy woman aged twenty-five, who died suddenly from a stab in the thigh dividing the femoral artery. He also showed microscopical sections of the mucous membrane of the uterus: in its deeper half the glands were much dilated, so that the section had a cribriform appearance to the naked eye, and disruption easily took place at this level. The condition resembled, on a small scale, the expansion of gland cavities which takes place in pregnancy, and is described as forming the surface of disruption for the puerperal decidua. The right ovary contained a follicle five-eighths of an inch in diameter, nearly filled by a clot of blood, which was partially decolorised, but there was no apparent commencement of cell-growth from the walls of the follicle to form a corpus luteum. As far as could be judged from the appearance of the clot, the follicle must have been ruptured as long as three or four days.

Extra-Uterine Fœtation—Spontaneous Cure.

Dr. Priestley showed the bones of a fœtus which he had removed from an ulcerated opening in the posterior fundus vaginæ by a series of operations extending from February to July, 1878. The history of the case was remarkable in that Dr. Priestley had been consulted by the patient as far back as May, 1866, when she was under his observation several months for an abdominal swelling, which, commencing in the right iliac region, rapidly increased in size till it filled the whole pelvis and reached to the level of the umbilicus, the cervix uteri being displaced forwards and upwards. It was at this time difficult to determine whether the case was one of retroflexion, with lateral displacement of the gravid uterus, or one of extra-uterine fœtation. Shortly afterwards, in October, the patient was seized with rigors, followed by fever, and pains intermitting like labour pains. At the end of a month she began to improve, the febrile symptoms departing, and the tumour diminishing in size. Soon afterwards menstruation reappeared, after eight months' absence, and became regular. The lady regained her health, and resumed her ordinary habits of life, and for nearly twelve years she experienced no discomfort. A purulent fetid discharge then commenced to flow from the vagina, for which she sought Dr. Priestley's advice, and then the ulcerated opening was found with a piece of bone protruding through it into the vagina.

Dr. Barnes observed that Douglas's pouch was the ordinary seat of extra-uterine gestation, and that, as a rule, it was a good and safe practice to puncture tumours behind the uterus in this place, with a view to treatment as well as to diagnosis. He did not think a rule to abstain from opening such a cyst could be drawn from the history of this one case. The patient had incurred considerable risk from the course adopted.

Dr. Bantock thought a question of such importance was not to be settled by a single case, however striking. He had no doubt that, could we ascertain the exact state of things at an early stage, operation would be found the most satisfactory mode of treatment. Each case must, however, be treated according to the circumstances.

Dr. Rogers inquired why the bones were not removed at one time, since chloroform was administered. He had taken away a far larger amount in one operation—in this case the sac had opened into the rectum. In another instance he had tapped per vaginam and extracted the bones without difficulty.

Tumour of Rectum.

Dr. Barnes exhibited a tumour, the size of an ordinary orange, which had been protruded from the rectum during labour. It proved to be a dense growth attached to the margin of the anus, the rest of the circumference of the anus being occupied by piles more or less indurated. At one point the tumour was greenish, as if about to sphacelate. It was removed next day by galvano-cautery wire; it had a broad basis, and Dr. Barnes looked upon it as an outgrowth from a hæmorrhoidal tumour. Dr. Goodhart had examined it minutely, and reported it as for the most part composed of loose fibro-cellular tissue covered in by a tough and altered mucous membrane. The deep part were however, cavernous in structure. He was of opinion that it originated in some chronic overgrowth of connective tissue round a pile.

Intra-Uterine Injection Syringe.

Dr. Potter showed his pocket-case containing the apparatus for injecting the uterus in cases of post-partum hæmorrhage. Its novelty consists in its portable form, the case only measuring five inches by four, and its depth less than two inches. It contains a Higginson's syringe, a long vulcanite tube divided into three pieces, and a bottle containing an ounce of dry perchloride of iron.

[The President then delivered an address.]

Gravid Uterus.

Dr. Fitzpatrick exhibited a gravid uterus with its contents at full term. The patient died suddenly from intracranial disease before labour had commenced. At the post-mortem he removed the uterus entire, thinking it might be of service to the Society.

Dr. Priestley proposed that the specimen should be frozen, and sections subsequently made of the contents.

On Digital Dilatation of the Os in Labour.

Dr. James Braithwaite (of Leeds) read a paper on this subject. He commenced by calling attention to the frequency with which rigidity of the os uteri gives rise to exhaustion before the real effort is required; also, the necessity occasionally for rapid dilatation of the os in cases of puerperal convulsions and other abnormal states. He considered our means of assisting dilatation in such cases most unsatisfactory. He referred to Barnes's bags and digital dilatation as ordinarily practised. The mode of using the fingers as a dilator, which it was the object of the paper to explain, differs from any of the methods of digital dilatation, in that both hands are brought into play at the same time. The right index-finger is introduced within the os uteri, with its palmar surface towards the sacrum; the left index-finger is then passed, with its palmar surface towards the pubes, the left hand crossing over the right for this purpose. By gentle pressure in opposite directions the os is readily made to dilate, the fingers being hooked within the os; the pressure is also made downwards,—thus very closely resembling the natural process. As soon as the os is dilated to the size of a five-shilling-piece, two fingers of each hand can be introduced for manipulating. The author related the histories of four cases in which he had by this method rapidly dilated the os to a size sufficient to enable him to apply the long forceps.

The President thought the recommendation of the author, if employed indiscriminately by unskilful hands, was likely to lead to mischief. He believed that the administration of chloral was often sufficient in itself to cause rapid dilatation of the os uteri.

Dr. Barnes was of opinion that the gentle uniform dilatation by water was much to be preferred to the unequal force exerted by the fingers, and whenever the os uteri was sufficiently dilated to admit even one finger, there was no difficulty in introducing one of his hydrostatic bags. Another objection to the fingers was that they are likely to get cramped and tired, and then the delicate sense of the resistance to be overcome and of the force to use would be impaired. If the bags somewhat disappointed, it was because defective ones were used. Some instrument-makers did not scruple to sell bags against which he had protested. The author of the paper had employed his system of dilatation in order to effect delivery rapidly in cases of puerperal convulsions. Dr. Barnes generally avoided manipulation as much as possible in such cases. He advocated the free use of chloroform; puncturing the membranes early, so as to lessen the tension of the uterus and the general vascular and nervous tension; then to dilate gently by the hydrostatic bags if the cervix did not expand spontaneously; and to accelerate delivery by forceps or turning if the labour flagged unduly.

Dr. Priestley would not venture to decide which was the best method of dilatation in the circumstances proposed; but he should be glad to know, as a practical point in the use of Barnes's dilators, how Dr. Barnes prevented their extrusion when placed *in situ*, as he had found them apt to be expelled with the occurrence of each uterine pain.

Dr. Edis thought that, although under exceptional circumstances the plan recommended by Dr. Braithwaite in his paper might be advisable, it was not one to be resorted to as a general rule, hydrostatic pressure being far safer, more especially when the os was high up in the pelvis. Dr. Edis

had, however, employed digital dilatation successfully in many cases where Barnes's bags were not at hand or were not tolerated.

Dr. AVELING said that a great drawback to the hydrostatic dilator was its being made of a perishable material. The life of vulcanised indiarubber was short, and if bags were kept for years they were apt to be found rotten when required for use. He considered dilatation by the hand to be safe when skilfully performed, and preferable to any other method with which he was acquainted.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, JANUARY 17.

Dr. STEVENSON, President, in the Chair.

THE minutes of the previous meeting having been read and confirmed, the report of the Council was presented, recommending the preparation of a model code of regulations for lodging-houses in urban districts, under Section 35 of the Sanitary Act, 1866. This report was received and adopted by the Society.

A letter was read from Mr. McCullagh Torrens, acknowledging receipt of the recommendations of the Society in respect of the proposed amendment of the Metropolitan Buildings Act. If the Bill should pass the second reading he will certainly propose that the "district Boards" be the local authority, and not the "Metropolitan Board of Works." He suggested that the Society should present a petition to both Houses of Parliament, approving the principle of the Bill, and detailing the alterations proposed by the Society.

The PRESIDENT alluded to the Order in Council for superintending the management of dairies and milkshops in the metropolis. He objected to the permissive part of it, giving the local authority power to frame or not, as they please, the regulations for carrying the Act into effect.

Dr. TRIPE remarked that the Privy Council were not in fault for the permissive part, but Parliament that had passed such a tentative Act.

Dr. STEVENSON also explained that the College of Physicians had nominated a council to carefully consider measures to be adopted for checking the spread of plague. They suggest that more than one person should go abroad at the expense of the country to examine the plague-stricken districts, and to inquire respecting the precautions taken by the Russian sanitary officers.

Professor D. T. Ansted was elected an honorary member; Mr. Alfred Clark, of Twickenham, an extra-metropolitan member; Mr. Wm. Whitaker, and Mr. J. B. Mackey, of Brighton, associates; and Dr. J. S. Brookfield, of Penistone, a member.

Dr. DUDFIELD remarked that a committee of the Middlesex magistrates had been appointed to consider the Order in Council for the management of dairies, etc. He had been informed that the regulations framed by the Society are receiving the careful consideration of that committee, and are very likely to be adopted by them. No new business could now be begun unless the local authority was satisfied that proper means existed for lighting, cleansing, and ventilating the dairy. Under the terms of the Act he had succeeded in preventing a milk-carrier, whose child was suffering from scarlet fever, from continuing his occupation until the one room they had occupied was properly disinfected. The inspectors appointed by the Metropolitan Board of Works must put the regulations in force. The local authority might act as a common informer, and thus require compliance with the terms of the Act, but they could not take the initiative.

Mr. LOVETT proposed that the Society give active support to the candidature of Dr. Farre for the Office of Registrar-General, which will become vacant shortly.

Dr. BUCHANAN then commenced his address on "The Evidence of Prevalence of Summer Diarrhœa deducible from Old Bills of Mortality." In 1875 he gave a presidential address on certain subjects which he thought might serve as a direction for sanitary inquiry by medical officers of health. He desired to ascertain whether it was true that summer diarrhœa is more fatal now than formerly. It is doubtful whether this opinion, if recorded, could be applied to modern methods of nosology. The old bills of mortality are largely made up of deaths from teething, flux, convulsions. Now such deaths would apparently be recorded under the more descriptive title of diarrhœa. He had carefully studied the mortality tables to ascertain the rise of mortality in children during the summer months. He had gone back about two centuries. It is to be regretted, he said, that these were tabulated by the parish clerks, and no ages given. As a rule, diarrhœa is entered as "griping of the guts." It is needful to study the weekly bills of mortality to get the rise correctly. He submitted a series of charts for the years 1672-78 onwards, giving a very prominent and rapidly rising curve about July and August, to represent the rise and fall of mortality from diarrhœa at this period of the year. The rise commences usually in the week after midsummer. He is disposed to think that there is evidence of diarrhœa being less fatal during the eighteenth century than in the seventeenth or the nineteenth centuries. The weekly returns of death were very carefully sent in at the time of the plague. He found a slight tendency of the compiler of the statistical records to enter the figures rather haphazard.

[Several charts were handed round during the progress of the address, giving at a glance the mean yearly mortality from diarrhœa, and the almost constant sudden rise after midsummer.]

Dr. TRIPE remarked that a set of temperature observations had been made by the Meteorological Society for many years past, and it would be useful to compare those with the charts so carefully worked out by Dr. Buchanan.

AUTUMNAL DIARRHŒA.

Mr. SHIRLEY T. MURPHY read a paper on this subject, of which the following is an abstract:—At the time Dr. Buchanan, in his presidential address to the Society, called attention to the behaviour of diarrhœa, certain peculiarities had been observed with regard to it. It was known to be a disease which was fatal to few but infants under one year of age; it was known to be fatal in any marked degree in our large towns only; and it was also known to exist during one particular quarter of the year, and to be almost entirely absent from the three other quarters. In March of 1875, in a paper published in the *Journal of the Scottish Meteorological Society*, Messrs. Buchan and Mitchell stated that "the deaths from diarrhœa begin to increase with the first week of June—slowly at first, then more quickly, till the middle of July, when the curve shoots up with astonishing suddenness to the maximum for the year in the beginning of August." Dr. Buchanan indicated certain points in relation to this disease which required further investigation. He asked, in the first instance, Is it, or is it not, true that summer diarrhœa is a much more fatal complaint than formerly? Secondly, Is it, or is it not, the fact that summer diarrhœa is fatal almost wholly among infants of a very few months of age, and that there is practically none of it in children over one year old? Of the total number of persons who died in London during the last three years, upwards of 78 per cent. were under one year of age. The writers of the article in the *Journal of the Scottish Meteorological Society* at that time surmised that, "if we had the whole facts, we should find that the special incidence of fatal diarrhœa upon young infants was most special at the epidemic period of the year." The Registrar-General's returns soon show us that this surmise is a correct one. The special incidence of diarrhœa upon infants under one year of age has engaged the attention of several health officers, with a view to learning how far the food of infants has been an element in the causation of their diarrhœa. Mr. Turner found that, of forty-seven infants who died from diarrhœa in Portsmouth, 28·2 per cent. only were wholly suckled. Starting with the belief that autumnal diarrhœa is a disease of modern times, he has argued that its existence is dependent on an increase of artificial feeding. The diarrhœa mortality of Leicester and Portsmouth remained stationary from 1847 to 1851. In 1851 it began to increase in Leicester, and between 1866 and 1877 this increase became enormous; while in Portsmouth there was almost no increase of mortality until 1861, and since that year it was very slight. During the year 1850 a strike occurred among the shoemakers in Northampton and Stafford, and a large number of them migrated to Leicester, and there commenced the manufacture of shoes, in which female labour is largely employed. Again, after 1860, in consequence of the treaty between France and England, the ribbon trade of Coventry was destroyed, and

numbers of the operatives engaged in ribbon manufacture settled in Leicester, and after some time set up the elastic web-weaving trade in that city—a trade in which women are also largely employed; and he argues that the employment of female labour, which must also be a cause of the artificial feeding of infants, is coincident with this increase of diarrhœa. In St. Pancras during last autumn, of 200 deaths among children under one year of age 29 per cent. were wholly breast-fed, 31 per cent. were fed on cow's milk, 19·5 per cent. on condensed milk, and 20·5 per cent. on mixed diet. Unless we know the proportions of children in the whole population as breast and artificially fed we cannot show any special incidence of diarrhœa of children of either class. The children who died of diarrhœa were, as a rule, the offspring of healthy parents, although there is some variation in the proportion of healthy to unhealthy parents in the statistics of the different observers. An inquiry into the sanitary condition of the houses also failed to throw any suspicion on the arrangements of the houses themselves. The houses in which the fatal cases occurred are not in themselves insanitary as regards size and number of rooms, water-supply, ventilation, house-drainage, and closet accommodation. The water-supply has, of course, been suspected, but there has been no reason to suppose that the character of the supply had any influence on the prevalence of diarrhœa. In one part of Leicester particularly an alteration of the water-supply was followed by no difference in the death-rate from this disease. Dr. Tatham, of Salford, in 1874, thought that much of the disease occurring among young children during the autumn, returned by the registrar as diarrhœa, would be more correctly described as fever of a low enteric type. Dr. Buchanan, in his address in 1875, showed conclusively that the distribution of the two diseases had nothing in common. It is a fact well known to all of us that the incidence of fatal diarrhœa is much greater on the inhabitants of towns than of rural districts, and that the death-rate of this disease varies greatly in different towns. So far as Leicester is concerned, Messrs. Buck and Franklin, in their report on the epidemic diarrhœa in that town in 1875, say that it was not so fatal among the very poor, and did not exist in many of the most crowded courts of the town. On the other hand, a somewhat remarkable fatality took place in some wide, open streets, newly built, and situate upon the extreme margin of the town. The social condition, the crowding of the inhabitants, and the sanitary arrangements of the houses, appear to exercise no influence on the incidence of the disease. Messrs. Buck and Franklin, in pointing this out, state that the land of the low-lying parts in the north-eastern district of the town was especially damp, and they find that that portion of the town had the greatest incidence of diarrhœa where the subsoil was saturated, where there was liability to stagnation of sewage, and where there was a greater portion of undrained made ground than elsewhere, although the houses were for the most part of good sanitary arrangement, and the population was not more dense and not poorer than in other parts. Dr. Johnston has observed that when temperatures of 56° and over exist in sewers, "putrid fermentation sets in, and the process goes on with a rapidity that is directly proportionate to the increase of temperature attained in the sewer." In badly sewered districts, milk and the juices exuding from fruit will be found to contain bacteria, and the atmosphere when filtered is always found to yield fungoid elements, ranging from micrococcus to mycelial filaments. He never found these in the air of the same localities during any day in April or May. He pointed out that those towns which had a good fall to their sewers had a low death-rate from diarrhœa, while those which were built on a flat site suffered more. Dr. Johnston has pointed out that the diarrhœa occurred in houses connected with badly constructed sewers. As far as St. Pancras is concerned this certainly does not appear to be the case, beyond the fact that diarrhœa is absent from a locality like Highgate, where the houses are built on the side of a hill—a condition which, we must remember, admits of surface-drainage as well as the passage of filth in sewers. There is no doubt that the difference in the incidence on age of the diarrhœa of the third quarter from that of the other quarters tends to support the idea that the diarrhœa of the autumn differs from that of the other quarters, although a possible explanation is that infants during the summer weather are less able to resist the disease than at other times of the year. That the mortality from diarrhœa is influenced by certain meteorological conditions I think there is no doubt; an absence of rain, a high temperature, and a low degree of humidity, favouring the development of this disease.

In the debate following, the PRESIDENT commented upon the amount of made ground in many parishes, and the waterlogging of the soil, as being very productive of diarrhœa. The non-diarrhœal portions of the St. Pancras parish are the lower parts, and here the drainage has not been so carefully attended to, as the houses have been built many years.

Dr. TURNER, of Portsmouth, also found that diarrhœa prevailed most in the higher parts of his parish. He had carefully examined the stools of patients suffering from diarrhœa, and he had found certain toruloid spores in the fæces of patients suffering from summer diarrhœa. It is, he finds, needful to have a minimum temperature for three weeks at or above 50° Fahr. for the disease to prove markedly fatal.

The debate was adjourned to the next meeting.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, FEBRUARY 26.

Surg.-Gen. JOHN MURRAY, M.D., President, in the Chair.

SPECIAL MEETING ON PLAGUE.

THIS was a special meeting of the Society, devoted to the subject of Plague. The first business was the reading of two papers—the one by Mr. J. Netten Radcliffe, giving an account of the Progress of Plague from its reappearance in 1853; the other communicated by Dr. E. D. Dickson, Physician to the British Embassy in Constantinople, on the Characteristics of Plague in Mesopotamia in 1876 and 1877. Both these papers were of great interest and importance, and are printed in full in our issue of to-day. In the discussion which followed the reading of the papers,

Sir JOSEPH FAYRER remarked that Dr. Dickson's paper would assist greatly in correcting the irrational panic which had arisen regarding plague. Though he had never seen a case of the disease, he had heard and read much about it, and he doubted whether it had been proved that the present epidemic in Russia was the true plague as it had manifested itself in Egypt. The French physician, Clot Bey, who had had excellent means of becoming familiar with the plague in Egypt, denied the direct contagiousness of the disease, and considered *cordons sanitaires* perfectly useless; and Sir Joseph would agree with him, though he at the same time considered sanitary precautions as very proper and advisable. He did not think that any amount of mere dirt and filth would ever originate the disease, though they were calculated to intensify its development. There had been instances of its occurrence at highly elevated situations in India, as their President could testify. He again insisted on the non-contagious character of the disease. Even the discharges from the buboes in real plague were shown by inoculation to have no contagious property. But in many cases of plague these buboes and petechiæ were entirely absent, and the existence of a few such appearances was not of itself pathognomonic.

Dr. CADDY, R.N., had never seen plague, but, from the descriptions they had heard of it, he considered the symptoms pointed to an acute hæmorrhagic fever.

Dr. LAURENCE HAMILTON would regard the disease, from the history of its progress, as a low form of fever allied to typhus, attacking most readily populations already weakened by previous disease or privation.

Dr. SAMUEL WILKS had been struck with the analogy between typhus and what they had just heard of plague. Both went along with poverty and filth; but yet it would seem that plague did not attack the most debilitated. He had long ago observed that many acute specific febrile diseases, such as typhus and typhoid, attacked the young and healthy among the poor. This peculiarity as to the selection of their victims by acute febrile diseases was an unexplained fact, which had been pointed out also by Dr. Walshe.

Mr. RADCLIFFE said that the reason why they had no careful clinical accounts and no details regarding the post-mortem appearances in cases of death from plague, was because the disease had not hitherto occurred in places where

such precise investigation was practicable. Still, they had most valuable information in the different reports and official documents which had become available during the last quarter of a century—information which indicated to them sufficiently clearly how they ought to act in dealing with the disease from a public health point of view, especially as all the recent evidence agreed with the conclusions of the Commission of the French Academy of 1844. Plague being present, there was no doubt of its transmission, but there was no evidence that it was by personal contact—the idea of contagion on which our modern quarantine laws are founded. The infection was through the air and surroundings of the patient; in fact, the conditions of propagation seemed exactly similar to those of typhus. He was therefore confident that our existing sanitary provisions were quite sufficient to cope with the disease, should it unfortunately reach our shores, just as they had been found effective enough to make epidemics of typhus events of the rarest occurrence. We should have to isolate the sick, destroy the clothing of the affected individuals, disinfect the houses, and, in fine, deal with the disease as with an outbreak of typhus. If a few cases, therefore, did occur, he believed that, with the powers they already possessed, they could deal with them effectively and thoroughly, without any serious danger of extension, except under conditions of gross carelessness or of absurd panic. Any quarantine proposals were impracticable and nonsensical for such a country as ours, though quarantine might be the proper measure for some foreign states not possessed of any effective powers for dealing with the disease if once introduced. As to the objection that, in spite of our public health arrangements, we had recently had a severe epidemic of small-pox in our midst, he had a complete answer. Under existing regulations much of our sanitary law was of a permissive character, and might, or might not, be enforced by the different local authorities, bodies which did not seem to feel at ease unless they had now and then an epidemic of typhoid or small-pox in their jurisdiction. But in the case of a new disease, like plague, he had little doubt that public opinion would make such bodies avail themselves of their permissive powers; and he therefore was quite confident of our ability to cope with plague. We are indebted to the three visits of cholera for all the public health administration that we already possess, and perhaps a few cases of plague would help on the work of completing that administration by making compulsory on authorities what is now optional. In regard to the present epidemic in Russia, Mr. Radcliffe pointed out there could be little doubt as to its being true plague, because, as typhus is prevalent from the Baltic to the Urals, the first group of medical men who visited the Astrakhan districts would at once have been able to recognise the true nature of the disease if it had been only a variety of typhus, which they had probably expected to find it.

The able remarks made by the President in closing the discussion, our readers will find in another column.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ANNUAL MEETING, SATURDAY, MARCH 1.

THE PRESIDENT, Dr. Charles West, took the chair at 8 p.m., and stated that the ballot for the election of officers and Council for the ensuing year (1879-80) would be open for one hour; nominating Dr. Duka and Mr. Edward Newton as scrutineers.

The balance-sheet of the income and expenditure of the Society for the year 1878, having been already circulated among the Fellows, was taken as read, and

Mr. TIMOTHY HOLMES, Honorary Secretary, then read the report of the President and Council. It included the customary details given in these annual summaries. The deaths of Fellows were fifteen, about the average number of the last twenty-five years. The new elections were twenty-three, inclusive of five honorary Fellows. The total number of Fellows, honorary, resident, and non-resident, is 666. The receipts of the year were less than those of 1877 by about £70, due principally to a decrease in the number of new admissions, the other items showing little variation in amount. The ordinary expenditure also was much the same as in recent years, but it had exceeded the year's income by a small amount. The report referred to the printing of the new catalogue and index, which had progressed so far that their completion in the course of the summer was certain. They would form three volumes (two of catalogue of authors, and one of index of subjects), with a total of about 2000 pages. The report of the Croup and Diphtheria Committee was also mentioned, which is now being circulated among the Fellows, and the discussion on which will be taken at the meeting of the Society on April 8 and 22 next. The Committee on Dr. Benj. Howard's method of performing Artificial Respiration had not yet made its report. The Council had acceded to the proposal of the Northumberland and Durham Medical Society to unite with them in memorialising the Government to take such steps as may seem best calculated to prevent the spread of infectious diseases through the agency of public day-schools. The Council recommended to the general meeting the contribution (of fifty guineas to the Harvey Tercentenary Fund, and the sale from its funded property of £500 to meet the expenditure on the printing of the catalogue.

At the conclusion of the report, its adoption was moved by Mr. THOMAS BRYANT, seconded by Mr. JOHN GAY, and carried unanimously, with the exception of the two paragraphs relative to the expenditure of money, for which, according to by-law, separate motions were required to be made.

It was then moved by Dr. SYMES THOMPSON, and seconded by Dr. SEMPLE—"That the Society should authorise the trustees to effect a sale from its funded property to the amount of £500 in order to meet the expense of printing the new catalogue and index."

In the discussion which followed,

Mr. KIALLMARK suggested that in order to meet so large an outlay from the Society's funds, a small payment should be made for the catalogue by those Fellows who wished to possess a copy.

Dr. Barclay, Mr. Birkett, and Mr. Holmes joined in the discussion as to the advisability of such a payment or not, there being no precedent for it in the Society, and it was ultimately referred to the consideration of the new Council.

The motion for the sale of stock was carried without a dissentient.

It was then moved by Dr. SIEVEKING, who spoke highly in favour of the adoption of his motion, and seconded by Mr. J. J. MERRIMAN—"That the Society contribute fifty guineas to the Harvey Tercentenary Fund."

Dr. JOHN HARLEY rose to move an amendment, on the ground that the laws of the Society did not permit such a use of its funds, and that, looking to the deficiency shown in the statement of its accounts, it had not the means in hand to make such a donation.

Dr. BLACK seconded Dr. Harley's motion, but would have preferred moving the previous question.

After some remarks by Dr. Quain strongly in favour of the gift, and from Dr. Douglas Powell and Dr. Buzzard as to cases of precedent, etc., the amendment, which proposed that the suggestion of the Council should be deferred for further consideration was negatived, and the original motion was carried with only a few dissentients.

The PRESIDENT then addressed the meeting, introducing some eulogistic remarks on the newly elected Hon. Fellows:—Sir John Lubbock, Dr. G. Baccelli, Dr. Noel Guéneau de Mussy, Prof. Scanzoni, and Prof. Theodor Schwann. He afterwards gave biographical notices of the Fellows whose deaths the Society had to deplore during the past year. His remarks were full of eloquent and feeling allusions to the incidents of their careers, and details of their life's labours and successes. The notices included the names of Mr. Joseph Clarkson, of Birmingham; Dr. John Roberts; Mr. Thomas Carr Jackson; Mr. Arthur Noverre; Dr. Julian Evans; Mr. Charles Hunter; Mr. John Hilton; Dr. Robert Willis; Dr. John Ashburner; Dr. Shearman, of Rotherham; Dr. Peyton Blakiston; Dr. Koch, of Ceylon; and one of its most celebrated Hon. Fellows, Professor Carl Rokitansky.

At the conclusion of the address, a vote of thanks was moved in terms of eulogy by Dr. P. BLACK, seconded by Mr. GAY, and carried with acclamation.

The PRESIDENT returned a few words of thanks, and announced the result of the ballot for officers and Council for 1879-80, as follows:—*President*: John Eric Erichsen, F.R.S. *Vice-Presidents*: Richard Quain, M.D., F.R.S.;

Charles Bland Radcliffe, M.D.; Barnard Wight Holt; John Birkett. *Treasurers:* William Wegg, M.D.; John Cooper Forster. *Secretaries:* James Andrew, M.D.; Timothy Holmes. *Librarians:* George Johnson, M.D., F.R.S.; John Whitaker Hulke, F.R.S. *Other Members of Council:* John Harley, M.D.; George Roper, M.D.; Octavius Sturges, M.D.; E. Symes Thompson, M.D.; Reginald E. Thompson, M.D.; William Morrant Baker; Henry Howard Hayward; Matthew Berkeley Hill; Arthur B. R. Myers; Robert John Spitta, M.D.

Votes of thanks were then moved—by Dr. BARCLAY, seconded by Mr. PAGE, and carried unanimously, to the retiring Vice-Presidents, Dr. William Wood, Mr. Cooper Forster, and Mr. John Wood, and to the other retiring members of Council, Dr. Robert Barnes, Dr. Begley, and Dr. Handfield Jones; and by Mr. BERKELEY HILL, seconded by Mr. MACNAMARA, and carried with applause, to Mr. John Birkett for his long and most valuable services to the Society as Treasurer, and to Mr. Savory for his valuable services as Hon. Librarian during the past year.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—TRINITY COLLEGE.—At the Hilary Term Examination for the degree of Bachelor of Medicine (M.B.), held on Monday and Tuesday, February 10 and 11, the successful candidates passed in the following order of merit:—

Mason, Thomas. | McCreery, Benjamin T.
Pratt, Joseph D. | Cohen, Abraham.

At the Hilary Term Examination for the degree of Bachelor in Surgery (B.Ch.), held on Monday and Tuesday, February 17 and 18, the following candidate was successful:

Wilson, West Whedale.

At a meeting of the Senate, held on Shrove Tuesday, February 25, in the Examination Hall of Trinity College, under the presidency of the University *Caput*, the Right Hon. Montifort Longfield, LL.D., pro-Vice-Chancellor; Dr. Hart, Vice-Provost; and the Rev. J. A. Galbraith, Senior Master *non-regent*, the following degrees in Medicine and Surgery were conferred:—

Baccalaureus in Chirurgid.—West Whedale Wilson.
Baccalaurei in Medicind.—Benjamin Thomas McCreery, Thomas Mason, West Whedale Wilson.
Doctores in Medicind.—Robertus Maude Maginniss, Gulielmus Owen (*in absentid*).

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 27:—

Jones, John, 11, Redesdale-street, Chelsea.
Suckling, Cornelius William, Wheeleys-road, Birmingham.
Sweeting, Richard Deane Roker, Atkins-road, Clapham-park.
Walker, Lawrence Newman, Tollington-park, Holloway.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Cotman, John Sell Edmund, Charing-cross Hospital.
Loveridge, Arthur William, Middlesex Hospital.
Payton, Thomas, Queen's Hospital, Birmingham.
Slater, William, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BATEMAN, F., M.D., F.R.C.P.—Honorary Physician to the Norwich Borough Lunatic Asylum.

HOLBECHE, ARTHUR OLIVER, M.R.C.S. Eng., L.R.C.P. Edin.—Resident Surgeon at the Birmingham General Dispensary.

NUNDY, EDWARD, L.R.C.S. Edin., L.S.A.—House-Surgeon to the Beckett Hospital and Dispensary, *vice* W. H. Smith, resigned.

PLAYFAIR, DAVID T., M.B., C.M. Edin.—Assistant Medical Officer to the Royal Albert Asylum, Lancaster.

STUART, JOHN R., M.B., C.M.—House-Surgeon to the Holme Dispensary, Manchester, *vice* F. H. Collins, M.D., resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—Staff-Surgeon William Connolly, M.D., has been promoted to the rank of Fleet Surgeon in her Majesty's Fleet, with seniority of December 25, 1878.

WAR OFFICE.—Deputy Surgeon-General David Reid Mackinnon, to be Surgeon-General, *vice* John Fraser, M.D., C.B., Hon. Physician to her Majesty, placed upon retired pay; Surgeon-Major Thomas Knox Birnie retires upon temporary half-pay.

BIRTHS.

DEAKIN.—On March 2, at Allahabad, India, the wife of Surgeon C. W. Shirley Deakin, F.R.C.S. Eng., Bengal Army, of a daughter.

DOLAN.—On February 24, the wife of T. M. Dolan, L.R.C.P.E., of Halifax, of a daughter.

FINCH.—On March 2, at Colchester, the wife of Henry Finch, M.D., of a son.

FLOOD.—On February 26, at Park Villa, Reigate, the wife of A. W. Flood, L.K.Q.C.P. Ire., R.N., of a son.

GIBB.—On February 22, at Westgate-road House, Newcastle-on-Tyne, the wife of C. J. Gibb, M.D., of a daughter.

MARTIN.—On January 21, at Darjeeling, Bengal, the wife of Surgeon John Martin, L.R.C.S. Edin., A.M.D., of a daughter.

PAYNE.—On January 19, at Cape Town, the wife of Henry P. Payne, L.R.C.P. Lond., M.R.C.S. Eng., of Tulbagh, South Africa, of a son.

RAVEN.—On February 25, at Broadstairs, the wife of Thomas F. Raven, L.R.C.P., of a son.

SANDERSON.—On February 23, at Wordsworth-street, Penrith, the wife of T. D. Sanderson, M.B., F.R.C.S.E., of a son.

SHAW.—On March 2, at Banstead, the wife of T. C. Shaw, M.D., of a daughter.

SHILLITOE.—On March 1, at Hitchin, Herts, the wife of Richard Shillitoe, M.R.C.S. Eng., of a daughter.

STANGER.—On February 28, at Hardy House, Wakefield, the wife of William Stanger, F.R.C.S., of a son.

MARRIAGES.

BINNEY—HEWER.—On March 4, at Highbury, John R. Binney, youngest son of Lieut.-Colonel C. R. Binney, R.E., of 14, Highbury-place, to Marion eldest daughter of John Henry Hewer, M.R.C.S. Eng., of Sandford House, Highbury New-park.

HARTLEY—HEAD.—On February 4, at Cape Town, W. Darley Hartley, M.R.C.S. Eng., A.M.D., to Harriet, eldest daughter of the late Henry, Leonard Head, first Mayor of King William's Town.

PORTER—ATHERLEY.—On March 1, at Cheltenham, Alexander Porter, M.D., F.R.C.S.I., M.R.I.A., Surgeon-Major H.M.'s Indian Army, to Maud Mary D'Arcy, daughter of General Mark Kerr Atherley, Colonel 109th Regiment.

SMITH—BREACH.—On February 20, at Aston Upthorpe, John Percival Smith, L.R.C.S. and L.R.C.P., of Lowestoft, son of John Capron Smith, M.R.C.S. Eng., of Great Yarmouth, to Eliza Jane, younger daughter of John Breach, M.R.C.S. Eng., of Aston Upthorpe, Berks.

DEATHS.

BATESON, HENRY, M.D., at 116, St. George's-road, Southwark, on February 27, in his 64th year.

FENTON, GEORGE FREDERICK, M.R.C.S.E., L.R.C.P. Edin., at San Remo, on February 26, in his 26th year.

GODRICH, FRANCIS, jun., M.R.C.S., L.S.A., at 140, Fulham-road, on February 27, in his 51st year.

HOUSEMAN, EDWARD COOKE, M.R.C.S., L.S.A., at Wintringham House, Knaresborough, on February 24, aged 42.

HYDE, EDWARD, M.R.C.S., late of Witney, Oxon, on March 1, at Thorne House, Clifton, aged 68.

IRVINE, GEORGE R., M.D., of 23, Guilford-street, Russell-square, W.C., on March 1, in his 41st year.

LISTER, JOHN, F.R.C.S., at 13, Hall-gate, Doncaster, on March 1, aged 63.

NICHOLS, GEORGE W., M.R.C.S., at Augusta House, Rotherhithe, on February 24, aged 50.

PARTRIDGE, JEMIMA, wife of Joseph Henry Partridge, M.R.C.S., of Colchester, on February 27, in her 54th year.

ROGERS, ELLEN, wife of Joseph Rogers, M.D., at 33, Dean-street, Soho, W., aged 54.

TIBBITTS.—On March 2, at Burfield House, Highgate, the wife of Herbert Tibbitts, M.D., of 30, New Cavendish-street, W.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CANCER HOSPITAL, LONDON AND BROMPTON.—Resident House-Surgeon and Registrar. Candidates must be unmarried, registered members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and thoroughly acquainted with the use of the microscope. Applications, with testimonials, to the Chairman of the Weekly Board, 167, Piccadilly, W., on or before March 22.

DORSET COUNTY HOSPITAL.—House-Surgeon: Candidates must be unmarried, and must possess a medical and surgical qualification from one or more of the British universities or colleges recognised under the Medical Act, and be duly registered. Testimonials as to moral character, general health, and professional ability, to the Chairman at the Hospital, Dorchester, on or before March 19.

GATESHEAD DISPENSARY.—Assistant-Surgeon, with double qualification. Apply to Mr. Joseph Jordon, 25, Close, Newcastle.

INFIRMARY FOR CONSUMPTION, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Every information may be obtained from the Secretary.

LEEDS GENERAL INFIRMARY.—House-Physician. Candidates must possess a medical degree in a British university, or be members or licentiates of a British College of Physicians. Testimonials to Dr. Heaton, the Infirmary, Leeds, on or before March 19.

LIVERPOOL ROYAL INFIRMARY.—Resident Medical Officer. Candidates must be unmarried, duly registered, and possess at least one medical and one surgical diploma, licence, or degree, recognised by the Medical Council. Applications and testimonials to the Chairman of the Committee on or before March 12.

RIPON DISPENSARY.—Resident House-Surgeon and Dispenser. Applicants must be unmarried. Applications, with testimonials as to professional ability and moral character, to the Honorary Secretaries.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population in computed according to the census of 1871.

RESIGNATIONS.

Docking Union.—Mr. R. Flockton has resigned the Snettisham District; area 26,065; population 6183; salary £80 per annum.

Ruthin Union.—Mr. T. Jones has resigned the First District; area 36,549; population 6511; salary £10 per annum.

Ticehurst Union.—The Wadhurst District is vacant; area 10,138; population 8191; salary £70 per annum.

APPOINTMENTS.

Dewsbury Union.—Wm. Arthur, M.D., C.M. Univ. Glasg., to the Mirfield District.

Glossop.—Mr. Joseph Carter Bell as Analyst for the Borough.

Kingston-upon-Hull.—James Baynes, jun., reappointed Analyst for the Borough for one year.

Liverpool Parish.—Robert Robertson, M.D. Edin., L.R.C.S. Edin., L.S.A., to the Fourth District. John Sinclair, M.D. Glasg., M.R.C.S. Eng., L.S.A., to the Ninth and Tenth combined Districts.

Newport, Isle of Wight.—Mr. Arthur Angell as Analyst for the Borough for three years.

Plomesgate Union.—Nicholas F. Hele, M.R.C.S. Eng., L.S.A., to the Aldeburgh District.

Sheffield Union.—Wm. Gill, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin., L.R.C.S. Edin., to the North-West District.

Somerset.—Mr. Wm. W. Stoddart reappointed Analyst for the County.

Whitechapel Union.—James H. Gibson, M.D. and C.M. Queen's Univ. Ire., to the Infirmary.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The election for two members of Council, in the room of Mr. Edward Ledwich and Mr. Benjamin Francis McDowell, both deceased, took place on Tuesday, March 4. Mr. William Thornley Stoker, and Dr. Edward Brunker, formerly of Dundalk, were elected by a majority of votes.

A LECTURE will be given at the Royal United Service Institution, Whitehall-yard, S.W., on Thursday, March 13, at 4 p.m., on the adaptation of the Jablochkoff electric light to medical and surgical purposes, by Mr. Balmanno Squire. The lecture will be illustrated by practical experiments with the light. Gentlemen who may wish to be present are requested to apply for cards of admission (by letter only) to Mr. Balmanno Squire, 24, Weymouth-street, Portland-place, W., and to write on the outside of the envelope "Request for card."

APPOINTMENTS IN THE DUBLIN HOSPITALS.—Dr. Joseph M. Redmond has been appointed Physician to the Mater Misericordiæ Hospital, in succession to Dr. Christopher Gunn, resigned from ill-health. Dr. Redmond has also succeeded Dr. Gunn as one of the temporary Physicians to Cork-street Hospital and House of Recovery. On Wednesday, February 26, Mr. William Stoker, F.R.C.S.I., was appointed a Surgeon to Jervis-street Hospital, in room of Dr. Kilgarriff, who has become Surgeon to the Mater Misericordiæ Hospital, in succession to the late Mr. H. J. Tyrrell. Mr. F. Alcock Nixon, F.R.C.S.I., has been appointed a Surgeon to Mercer's Hospital in room of the late Dr. Benjamin Francis McDowell. The vacancy in the surgical staff of this Hospital, created by the death of Mr. Ledwich, will not be filled up for about a month. On Saturday, March 1, Dr. Henry Fitzgibbon, Surgeon to the City of Dublin Hospital, was elected Junior Surgeon to the Westmoreland Lock Hospital, *vice* Mr. Rawdon Macnamara, promoted to be Senior Surgeon on the death of Dr. Benjamin Francis McDowell. Mr. Nixon, the newly appointed Surgeon to Mercer's Hospital, is a Lecturer and Demonstrator of Anatomy in the Ledwich School of Medicine and Surgery. He was also late a surgeon in the Royal Navy.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

B.—The odour is sometimes given by turpentine.

Railway Traveller.—A case of importance to railway travellers was lately brought before the Glamorgan Assizes. The verdict returned affirms the principle that a railway passenger who leans against an unfastened carriage-door, and through such act falls out of the carriage, is not to be held chargeable of contributory negligence. A commission agent at Pentypridd was awarded £1500 compensation in an action which he had brought against the London and North-Western Company for severe injuries thus sustained. The defendants' servants were considered by the jury entirely to blame, for not having seen that the door was properly fastened before the train started.

Dr. Beardsley, Birmingham, Conn., U.S.A.—The examination on commencing medical studies is entirely on preliminary general education; the questions are not published. The questions for the first and second professional examinations are regularly published in our columns. A selection from them by Mr. Gant is published by Baillière, Tindal, and Cox, King William-street, Strand, W.C.

Cuvier, Kensington.—Professor Flower commenced his course of lectures on the Comparative Anatomy of Man on Wednesday last.

"Garrick Club."—We never give advice in this journal: "a little knowledge is a dangerous thing." In the Court of Queen's Bench, a pompous witness, wishing to convince Lord Ellenborough of his importance, said, "My lord, I sometimes *employ myself* as a doctor." "Very likely, sir," said his lordship drily, "but is anybody else fool enough to employ you in that capacity?"

H. M., Epsom College.—Write at once to the Secretary, explaining the circumstances, and perhaps he may add your name to the list of candidates for the Arts examination, which already contains upwards of 400 names.

M.P.—Dr. John Brady, M.P., is a member of the Royal College of Surgeons of 1846. Mr. Mitchell Henry, another M.P., late Surgeon to the Middlesex Hospital, was admitted a Member of the College of Surgeons in 1847, and a Fellow by examination in 1854.

H. F. S.—In 1606, Roman Catholics were prohibited in England by statute "from practising physic or exercising the trade of apothecaries."

Trichinosis.—The Italian Government has prohibited the importation, from the United States of America, of pigs and pork, whatever preparation the meat may have undergone, in consequence of the prevalence of trichinosis among swine in that country.

The Army Medical Department and the Zulu War.—A daily contemporary makes the following remarks on this subject:—"The Army Medical Department, it seems, has been unable to supply the demands for the Zulu war, and has been compelled hurriedly to engage the services of a batch of civilians untrained in military surgery, or the special exigencies of field service. No fewer than forty such 'volunteers' have, we are told, been engaged at a pound a day. Either no special training is needed for Army Medical duties, and an Army Medical Service is a superfluity, or it should be so organised as not to break down on the first touch of emergency; but the fact is, that the Service has been rendered so unpopular by successive acts of niggardliness and inconsiderate ill-usage, that for some time no candidates have been forthcoming to fill the ordinary vacancies. On the other hand, for the Indian branch of the Service, which is better treated, there are three candidates for every vacancy, and at this moment there are thirty-four candidates for fourteen appointments about to undergo competitive examination at Burlington House. Strange to say, however, the remedy which has just been proposed for this state of things, by a War Office Committee, is not to remedy the just grievances, and to render the Service sufficiently attractive to bring forward recruits, but to abolish the competitive examinations. They do not offer satisfactory grounds for this doubtful proceeding, and it may be hoped that their recommendations will not be allowed to pass without adequate discussion in the House of Commons."

A Worthy Example.—In the Broadway, Westminster, a new coffee tavern has been opened under the patronage of some persons interested in temperance. It is neither connected with nor supported by any society or public company.

A Public Mortuary, Westminster.—A public meeting has been held at the Townshend Schools to consider a scheme of the District Board of Works for erecting a public mortuary, post-mortem and disinfecting rooms on a secluded site in the disused burial-ground in Horseferry-road. Mr. Bernard Holt, the Medical Officer of Health, approved of the scheme, and by a large majority the meeting resolved that a faculty should be applied for to carry it into effect.

Public Baths and Washhouses, Battersea.—A special committee of the Battersea Vestry has for some time past had the subject of the Latchmere allotments, at Battersea, under consideration, and there is at length a probability of public baths and washhouses being erected on the ground. Considerable difficulties have been felt as to a legal appropriation of these allotments, but it seems they could be used for the benefit of all the parishioners for the purposes proposed, under the Act passed to encourage the establishment of such institutions, and which gives power to churchwardens and overseers to utilise land belonging to the parish for the purposes of a site. The adoption of the Baths and Washhouses Act is more especially a necessity, as the majority of the inhabitants belong to the labouring classes employed in the manufactories in the district. The utilisation of the ground for the purposes suggested will be a great sanitary desideratum alike to bathers and to those availing themselves of the advantages afforded for laundry work.

Associate, King's College, Stockwell.—Dr. William T. G. Morton died suddenly in 1868. Dr. Bowditch, in the *Boston Medical and Surgical Journal*, has insisted that Dr. Morton was "really the sole original discoverer of etherization," and adds that, "to the shame of a great and powerful nation, his family still remain without that substantial recognition due to him for one of the greatest blessings ever conferred upon humanity."

COMMUNICATIONS have been received from—

Dr. F. Churchill, London; Mr. E. Bellamy, London; Mr. T. M. Stone, London; Mr. W. E. Poole, London; Mr. B. R. Wheatley, London; Mr. S. Hamilton Cartwright, London; Dr. Godson, London; Mr. D. Colquhoun, London; Dr. George Thin, London; Mr. John Heywood, Manchester; Dr. D. L. Beardsley, Birmingham, U.S.A.; Dr. Wolfe, Glasgow; Mr. J. Hamilton Craigie, London; Mr. J. J. Merriman, London; The Registrar of Apothecaries' Hall, London; Mr. Geo. Neves, Sittingbourne; Mr. J. Netten Radcliffe, London; Dr. J. W. Moore, Dublin; Mr. Balmanno Squire, London; Mr. W. Douglas Hemming, Bournemouth; Mr. R. Clement Lucas, London; Dr. Taylor, London; Mr. Christopher Heath, London; Mr. B. G. Jenkins, London

BOOKS AND PAMPHLETS RECEIVED—

Materia Medica and Pharmacy, for the Use of Medical and Pharmaceutical Students preparing for Examination, by W. Handsel Griffiths, F.C.S., L.R.C.P. Ed.; edited by George F. Duffey, M.D.—Julius Pollock, M.D., Notes on Rheumatism, second edition—V. Cornil, Leçons sur la Syphilis.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Glasgow Medical Journal—Révue Médicale Française et Etrangère—National Anti-Compulsory Vaccination Reporter—El Siglo Médico—Transactions of the Odontological Society of Great Britain—Veterinarian—Indian Medical Gazette—Analyst—Anti-Vivisectionist—Archives Générales de Médicine—Monthly Homœopathic Review—Journal des Sciences Médicales de Lille—Students' Journal and Hospital Gazette—House and Home—Obstetrical Journal—Night and Day—Morningside Mirror.

APPOINTMENTS FOR THE WEEK.

March 8. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. Walter H. Pollock, "On Colbert and Richelieu."

10. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. Symes Thompson, "On Gout in its Relation to Life Assurance."

Royal College of Surgeons of England, 3 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

11. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. C. Higgens, "Remarks on 150 Operations for Extraction of Cataract." Mr. Hulke, "Case of Secondary Trephining for Traumatic Abscess of the Brain—Recovery."

12. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Dr. Herman, "On the Treatment of Fibroid Tumours of the Uterus by Ergot."

Royal College of Surgeons of England, 4 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

Royal Microscopical Society, 8 p.m. Mr. A. D. Michael, "A Contribution to the Knowledge of the British Oribatidæ." Mr. George Hoggan, "On the Development and Retrogression of the Fat Cell."

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Sound."

14. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m. Mr. Heath, "Foreign Body (end of a Silver Catheter) in the Bladder—Median Lithotomy—Recovery." Dr. C. T. Williams, "Case of Tapping a Fetid Pyo-Pneumothorax." Dr. Cayley, "Gangrene of the Lung treated by Incision." Mr. C. B. Keetley, "A Case of Severe Traumatic Meningitis treated in the Stage of Coma by Cold Douche for two hours and a half—Recovery."

Quekett Microscopical Club (University College), 8 p.m. Meeting.

Royal College of Surgeons of England, 4 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Mr. E. B. Tylor, "On the History of Games."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 1, 1879.

BIRTHS.

Births of Boys, 1350; Girls, 1252; Total, 2602.
Average of 10 corresponding years 1869-78, 2387·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	917	854	1771
Average of the ten years 1869-78	816·2	797·0	1613·2
Average corrected to increased population ...	...	...	1796.
Deaths of people aged 80 and upwards ...	...	...	79

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	7	7	5	...	12	...	1	...	4
North ...	751729	...	1	11	1	7	...	6	...	6
Central ...	334369	...	2	1	1	3	...	...	...	...
East	639111	1	2	6	2	12	...	2	2	3
South	967692	14	9	12	4	16	...	4	1	6
Total	3254260	22	21	35	8	50	...	13	3	19

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·705 in.
Mean temperature	34·8°
Highest point of thermometer	46·7°
Lowest point of thermometer	24·5°
Mean dew-point temperature	30·8°
General direction of wind	NNE. & SW.
Whole amount of rain in the week	0·25 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 1, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending March 1.	Deaths Registered during the week ending March 1.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2602	1771	46·7	24·5	34·8	1·56	0·25	0·63
Brighton	105608	44·9	56	36	45·0	25·5	34·7	1·50	0·18	0·46
Portsmouth ...	131821	29·4	88	50	...	...	...	...	...	...
Norwich	85222	11·4	51	41	47·0	27·5	35·3	1·84	0·06	0·20
Plymouth	74293	53·3	39	25	51·0	29·0	37·4	3·00	0·26	0·66
Bristol	209947	47·2	153	76	49·6	17·6	35·4	1·89	0·36	0·91
Wolverhampton ...	75100	22·1	74	40	43·3	19·8	31·6	−0·22	0·25	0·63
Birmingham ...	388884	46·3	291	191	...	...	...	...	...	...
Leicester	125622	39·3	87	78	48·0	24·2	34·0	1·11	0·67	1·71
Nottingham ...	169396	17·0	112	89	48·0	20·3	33·6	0·99	0·51	1·30
Liverpool	538338	103·3	405	347	46·2	29·7	36·8	2·67	0·13	0·33
Manchester ...	361819	84·3	241	239	...	...	...	...	...	...
Salford	177849	34·4	139	98	...	...	...	...	...	...
Oldham	111318	23·9	67	60	...	...	...	...	...	...
Bradford	191046	26·5	120	94	46·0	26·2	34·5	1·39	0·23	0·58
Leeds	311860	14·5	228	184	47·0	27·0	35·1	1·73	0·37	0·94
Sheffield	297138	15·1	214	154	47·0	22·5	35·0	1·67	0·42	1·07
Hull	146347	40·3	107	74	45·0	28·0	34·1	1·17	0·41	1·04
Sunderland ...	114575	41·4	92	48	52·0	30·0	37·0	2·78	0·75	1·90
Newcastle-on-Tyne	146948	27·4	101	71	...	...	...	...	...	...
Edinburgh	226075	53·9	159	100	46·7	23·5	35·4	1·89	0·37	0·94
Glasgow	578158	95·8	407	316	...	...	...	...	...	...
Dublin	314666	31·3	185	257	51·7	23·8	37·8	3·23	0·08	0·20
Total of 23 Towns in United Kingdom	8502896	38·6	6018	4437	52·0	17·6	35·2	1·78	0·33	0·84

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·71 in. The lowest reading was 29·29 in. at the beginning of the week, and the highest 30·09 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

XI.

CLINICAL LECTURE ON OVARITIS.

BEING THE ELEVENTH OF A COURSE OF LECTURES DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery to the Hospital.

THE diseases to which I am to devote most of this lecture are very difficult of precise investigation. They are seldom fatal, and consequently seldom illustrated in the post-mortem theatre. For these reasons progress in this department of gynæcology has been very slow.

Ovaritis, like several of the diseases that I have been lecturing on in this room, occurs as a complication of pyæmia; and such ovaritis I do not consider to-day at all. A case of this sort occurred in "Martha," and I just mention it to give you an example of kinds of ovaritis that I am not considering to-day. A woman was delivered with great difficulty on account of placenta prævia, complicated with slight contraction of the pelvic brim. After delivery she suffered from putrefactive septicæmia. She was in this condition brought to the hospital. The putrefaction was arrested by intra-uterine lotion. She then showed symptoms of pyæmia, and died. Two pelvic collections of pus were found—one (perimetric) in a cavity bounded by the left ovary, the uterus, and above by a piece of omentum: this contained half an ounce of pus; the surface of the ovary was ulcerated where it formed the wall of the pus-sac; the ovary itself was enlarged, and corpora lutea in it contained pus. The other collection of pus was in the cellular tissue (parametric), to the right of and a little behind the cervix uteri, and contained the same quantity of pus. The walls of the uterus were flabby. The decidua serotina was easily seen. The right ovary was swollen, renitent, as big as a walnut, and when cut into was found to have its healthy tissue everywhere utterly destroyed and converted into a yellow, purulent, almost diffluent mass. There was no lymph in Douglas's space. Bladder and uterus normal; no general peritonitis. Of such ovaritis with suppuration examples are not rare, because puerperal pyæmia is not rare.

Leaving that subject, I come to say a few words on what may be regarded as prefatory to ovaritis—ovarian irritation, often called ovarian neuralgia; a very common affection. It is characterised by absence of every sign of disease, and of every regular symptom, except pain in the region of one or other ovary; curiously, more frequently in the left than in the right ovary. You know that when a disease is characterised by pain, and nothing else, it is called an irritation or a neuralgia; and so it is in the case of the ovary. Although that is the name given to it, you must not suppose that that is the final or true pathology of the disease. I am very doubtful of that. In accordance with the nature of this disease, characterised, as I have said, by a pain in one or other groin over the ovary, it is treated by anti-neuralgic medicines, and a combination of zinc and quinine has had great reputation in cases of this kind.

I go a step further, and now mention to you some cases which are not inflammatory, and yet which are certainly more than merely neuralgic. Of this kind of disease many examples occur. Either one or both ovaries may be felt, and they are slightly enlarged—they are tender, and you may well ask, "Why, then, do you not call that inflammation?" Now, there are the following reasons for this:—That in many cases, as in one which I am just about to read to you, the women are in perfect health—not in all cases, for many practitioners would ascribe the nervous, hysterical condition of some women to this disease of the ovaries; but it occurs frequently in women who are in blooming health, who have nothing to complain of except tenderness of the ovaries, not pain in them. Further, cases of this kind are not in any marked manner benefited by antiphlogistic treatment. They generally, indeed, resist all treatment. Here is a case:—A. H., aged twenty-four years, married a year and a half; never pregnant; catamenia regular. She complains of painful menstruation. On examination, the left ovary is easily felt, and somewhat swollen and tender. The uterus is natural, except extreme sensitiveness of the mucous membrane of its body. The cervix permits easily the passage of only a No. 7 bougie. After some partially successful treatment of the dysmenorrhœa, she left the hospital, but soon returned, saying she was not cured. Now she privately made known that what she wished cured was not so much her painful menstruation as pain in sexual connexion—a pain which delicacy had prevented her from earlier mentioning. With this in view, she was re-examined, and now both ovaries, somewhat prolapsed, swollen, and tender, yet freely mobile, were easily felt. Pressure on either of them produced pain, which she recognised as that of her dyspareunia. She is now under treatment. Counter-irritants externally, and small doses of corrosive sublimate internally, are being used. I can only say I hope she will be cured.

Now I come to cases about which there can be no doubt, where you have every local indication of inflammation that you can get under the circumstances, and corresponding constitutional disturbance. Here there is a very great difficulty, namely, in arranging the cases into classes according as they are acute, subacute, and chronic. Many cases are easily recognised as chronic and subacute; and among such some pathologists might place the case of dyspareunia that I have just read. But the great majority of cases it is impossible to place in any distinct category. At the other extreme, however, you have cases which end in abscess. These cases are evidently acute inflammations. Such acute cases ending in abscess, and not of the pyæmic kind that I have mentioned at the beginning of this lecture, are not uncommon, and the abscess is perioophoric, or in that part of Douglas's space in which the ovary is lying. Acute inflammation of an ovary after abortion, delivery at full time, or in the unimpregnated female, not rarely ends in pelvic abscess, which is a perioophoric abscess. No doubt, apart from pyæmic suppuration, cases of abscess or suppuration within the ovary do occur, especially small abscesses; but, clinically speaking, I know nothing of such cases. I have seen them in the post-mortem theatre. I am inclined to throw considerable doubt upon the histories of cases described as of large abscesses within the ovary, containing half a pint or pints of pus; and it would require careful dissection of such a case, careful consideration of all its history and characters, before it could be held as proved that such a large collection is an ovarian abscess, and not a suppurating cyst. I do not deny the possibility of a small abscess forming in the ovary; but I do not think it is proved that large abscesses, such as are described, ever form in the ovary—at least, I have never seen a case nor a dissection which satisfied me on that point.

I have said that the progress of this department of gynæcology is very slow; and we owe progress in it to two causes—the recent enthusiasm in gynæcology which is prevailing all over the world; but more especially to increased exactness, and more extensive application of the bi-manual method of examination. You know very well, and it is admirably illustrated in many parts of medicine, that although a thing is before your eyes you may not see it unless you look specially for it. Nothing is more painfully true than this; and in no department of science is it better exemplified than in medicine. When you carefully look for disease of the ovaries, and the careful seeking is done mainly by bi-manual examination, you will find that there are very many cases of minor disease of the ovaries. Bi-manual examination may be made in various ways. It is to be done in every case in which you pretend to make a thorough examination of the internal genital organs. Before proceeding to it, the bowels must be emptied—that is to say, it is as a preparatory measure well to give a dose of castor oil. If you do not, you may find the visit to your patient lost in consequence of the distension of the bowels with fæces. You cannot make a fine examination of the ovaries while a quantity of fæces is stuffing the pelvis. The bowels being emptied, your patient is placed on her back at the right side, or at the obstetric side of the bed; her right thigh is raised, the right foot being placed adjacent to the left knee. With the forefinger of your right hand you examine per vaginam and per rectum. Simultaneously you assist and contribute to the examination by the left hand placed over the hypogastrium, pressing the parts; the left hand pressing the parts down upon the right, the right pressing the parts up upon the left. Making the examination in this way in a woman who is not nervous, who submits well to the examination, who has not a great quantity of fat, you can feel the pelvic organs with very great precision. You

can easily, as you will have plenty of opportunities in healthy women of ascertaining, make the fingers of the two hands meet, for instance, in front of the uterus; and thus you grasp the bladder between the two hands. You can place the fingers so as to grasp the uterus and feel every part of it; and pressing the fingers towards the sacro-iliac joint on either side, you can, in a great number of cases, seize either ovary. If you cannot find an ovary, that is not proof that it is healthy; it is a presumption, however, in favour of its being so, for, in almost all of the minor diseases of the ovary, you can easily seize it. In a woman with healthy ovaries it is sometimes impossible to identify these organs in this way. They are then too small, soft, and mobile. If, however, an ovary is of the size of a walnut, you can quite easily feel it. This bi-manual examination is frequently rendered abortive by the presence of adhesions; and if these are present, they, as it were, throw a cloud of uncertainty over the examination, by preventing you from identifying the ovary and feeling it.

I may mention here that at least one eminent author says that the minor forms of inflammation of the ovary never exist without ulceration of the cervix; and that that is a mistake. Were it true, it would be an extremely valuable indication; for if there were no ulceration of the cervix there could be no ovaritis. Such a negative indication would be of great value could we rely upon it. This we cannot do.

What do we make out by bi-manual examination? We make out firstly, tenderness, frequently intense tenderness; and this may prevent thorough examination. The woman cannot endure it; she shrinks, and will not allow you to proceed further. Be very careful, therefore, not to elicit more pain than is inevitable, at least until you are about to finish your examination. You frequently are astonished to find the presence of this tenderness, for it is often present when the woman complains of no distinctive ovarian pain. It attracts your attention in such a case for the first time to the seat of the disease.

The position of the uterus is affected by ovarian swelling. Ovaritis is a disease eminently liable to relapses; it is liable also to attack one or the other ovary alternately. In those cases you often observe a change in the position of the uterus when the ovary becomes enlarged and swollen. It may be retroverted when the ovary is healthy, and then be pushed up into a natural situation when the ovary is swollen. If the ovary becomes increased in size, and therefore in weight, you would naturally expect it should fall down,—and so it does; it becomes what is called prolapsed; instead of being upon a higher level, as in health, it lies upon the level of the neck of the womb—sinks into Douglas's space. This prolapse makes the organ more easily felt, and in the case of dyspareunia that I read to you, both ovaries were distinctly felt and both prolapsed, lying down on the level of the cervix instead of higher up behind the uterus. This prolapsus does not invariably occur; but when it does occur you can easily understand how it should aggravate dyspareunia. A woman with inflamed ovaries in the natural position may not have dyspareunia; but a woman with a slight degree of ovaritis, or with only slightly enlarged ovaries, if they are prolapsed, may have great dyspareunia. Besides making out the condition of tenderness, you examine the consistence of the organs. They may be more or less hard or elastic. Next, you pay attention to the size of the organs. This is a subject that has been very much disputed. I am satisfied that an inflamed ovary may increase in size to many times its natural bulk, but not many times its natural lineal dimensions; and these two modes of measuring are often confused. I have seen in a post-mortem a hypertrophied ovary which was as big as a small hen's egg, and that without anything to be discovered in it except what may be called areolar hyperplasia, or, in simpler words, increase of fibrous tissue. In some cases—rare, no doubt—the ovary becomes smaller, and you have a condition which has been described as that of cirrhosis. In this cirrhotic disease, the ovary of an otherwise healthy, young, and vigorous woman has become contracted to a size little larger than that of a field-bean; and when cut through it is found to consist of nothing but intensely dense whitish fibrous tissue.

The enlargement of the ovary that is the subject of inflammation is a matter that requires a little more description, because in some cases that are otherwise naturally classed clinically as cases of ovaritis, you have merely irritation from the growth in the ovary—not of ovarian dropsy, but of a thin-walled cyst or cysts, generally filled with a limpid, straw-coloured fluid, sometimes containing fluid that is grumous, or at least tinted with blood. There was a case in Martha last Tuesday. The woman came to us in perfect health except with pain in the region of the left ovary. Her left ovary was about the size of an orange, and felt as if it were a tense cyst. I believe, though I cannot prove it, that it has in it a tense cyst, and it is the tension of this cyst that is giving her the pain, and nothing that we can do will do it any good. I anticipate, however, speaking from considerable experience of such cases, that it will burst and disappear without giving the woman any more trouble. If its contents are unfortunately grumous, or mixed with pus, it will probably give the woman a good deal of trouble—it may be fatal; but I anticipate nothing of that kind, because she has no symptoms indicating inflammation of the part. There is very little tenderness, and no adhesions; I therefore think the pain arises from tenseness of a cyst. This disease is generally called hydrops folliculi, and the bursting of them is not rare. Sometimes, instead of one cyst you have several, not a multilocular cystoma, but two or three or more of similar dropsical follicles. They are said to be Graafian, but that remains to be proved. It is certain that many of them are Graafian, because ovules have been found in them. Several years ago I described this formation and bursting of follicular ovarian cysts as forming a disease that might be confused with ovaritis; and since then I have taken great interest in noticing, not post-mortems—for, as I have told you, the disease we are discussing is scarcely ever illustrated in post-mortems,—but, what is nearly as good for the purpose, cases of spaying, an operation which has been introduced recently into gynæcological practice. If you read recorded cases of the spaying of women suffering from what was supposed to be ovaritis, you will find in an astonishing number—certainly in three-fourths of them—that, on getting hold of the ovary, it was found to be composed of fragile cysts, whose presence, previous to the operation, had not been suspected. This complication adds greatly to the difficulty of diagnosis.

The essential part of the diagnosis I have gone over. I shall now mention a few symptoms which occasionally accompany ovaritis. These symptoms, no doubt, frequently depend upon corporeal endometritis, which, in a considerable number of cases, accompanies ovaritis. Corporeal endometritis is inflammation of the mucous membrane of the cavity of the body of the uterus. This being so, you can easily understand that in cases of ovaritis you will frequently have either menorrhagia or prolonged menstruation. Occasionally, however, you have amenorrhœa; and in such cases there is probably no endometritis. Women are frequently sterile when suffering from ovaritis; but there is no invariable connexion between the two. Indeed, although it is probable that there is some connexion, it is far from being proved. I have known typical cases of ovaritis lasting during the child-bearing period of life, in women persistently fertile.

I must now say a few words on peculiarities of ovaritis; and the case I am going to read to you will illustrate the tendency of the disease to relapse.

A. O., aged thirty years, married for five years; has had three children, the last eighteen months ago; no miscarriages; catamenia natural and regular, the last beginning on December 26; admitted January 18. She complains of pain in the hypogastrium and in the left iliac region, which has continued since January 1. On careful examination the only disease discovered was a swollen, tender, left ovary. Besides ordinary constitutional treatment, a blister two inches square was applied above the left inguinal canal, and a course of half-drachm doses thrice daily of the liquor hydrargyri perchloridi was instituted. Under this treatment she rapidly improved; but a week from its commencement—that is, on the 25th—the symptoms and signs of disease, which were dying away in the left side, began with some intensity in the right. A similar treatment was used for this relapse, and with similar good results. This is a remarkably favourable case. What was the cause of it we do not know, but it was of very short duration, and there is considerable reason to fear that it will again relapse.

There is a distinction of the disease into follicular inflammation and interstitial or stromatous inflammation, which is of very great importance, but which, for clinical purposes, has as yet no interest. I know no way during life of making any distinction between them. The follicular

inflammation is said to be most frequent as a complication of fever or cholera, and to be accompanied by little tendency to the formation of adhesions. The inflammation of the stroma is said to occur chiefly after abortion or lying in at the full time, and in it you have greater tendency to increase of size and the formation of adhesions.

The formation of adhesions around the ovary prevents your being able to diagnose precisely the disease while they persist. It may be exactly diagnosed if you ascertain the condition of the ovary before the adhesions were formed; or if you ascertain the condition of the ovary after the adhesions disappear; and both of these observations are not rarely made in actual cases. When you have adhesions forming around the ovary you have always a threatening of the formation of perioophoric abscess, which I have told you is not of very rare occurrence. If one ovary is surrounded by adhesions, you frequently have a singularly distinct limitation made out by your examining finger of the condition of the upper part of the cavity of the pelvis as supposed to be divided into four parts. In the case of the inflammation of one ovary, you frequently have one of the posterior quarters of the upper part of the pelvis solidified. You have then a right to suspect that the mass of hardening and adhesions is not the result of metritis, but the result of the inflammation of an organ which is in that part. I shall read to you a case where this was particularly well observed, and where, in accordance with the natural history of the disease, the adhesions spread, so as, in the latter part of the case, to occupy both posterior quarters, that is, the posterior half of the upper part of the pelvic excavation, and, as you might expect, push the uterus somewhat forwards. S. E., aged thirty-four, married for four years, has had two children and no miscarriages. Last child born about eleven months before admission to "Martha"; much hæmorrhage at its birth. Catamenia began when she was thirteen years of age: they are always irregular, painful, and profuse. The last period occurred six weeks before admission. About three months ago underwent an operation for fissure of the anus, which has not relieved her. She now complains of pain on micturating. Nine days after last confinement she travelled a hundred miles by train. This brought on pain in the lower part of the back and in the lower part of the belly and along the outside of the right thigh. This pain has been aggravated during the last three months. Has a little white discharge. There is, on external palpation, a feeling of fulness over the right side of the brim of the pelvis. In the same part there is tenderness. Digital vaginal examination discovers the cervix uteri in a natural situation. The probe discovers a uterus of natural dimensions in its natural situation. The uterus is fixed, and cannot be discriminated by the finger from a mass of tender hardness which occupies the right posterior quarter of the upper part of the pelvic excavation. The tender hardness subsequently increased in bulk, extended across the pelvis to the left side, and displaced the uterus forwards. She was kept in bed and treated as I shall presently describe. When, after six weeks, she was dismissed, her symptoms were all much alleviated. The signs of disease had also disappeared, except an adherent fixed uterus. Here was a case of chronic ovaritis almost certainly produced by the journey after the last confinement. The disease had lasted about eleven months, and during her stay in the hospital it extended from the right side to the left, but under proper treatment (whether the improvement is to be ascribed to the drug part of the treatment or the rest and proper hygienic care, I cannot say) the active disease rapidly disappeared.

Before I conclude I must say a few words as to the causes and treatment of this very important disease. Occasionally it is seen as a consequence of fever, especially typhoid, cholera, rheumatism; and, in close connexion with these diseases, it is very frequently a result of the use of alcoholic liquors, even when these are not taken to excess. At present my impression is that that is a most frequent cause of the disease; and this view of the causation of the disease is in the most gratifying manner frequently corroborated, if not proved, by the cure which follows upon the adoption of teetotal living. A great mass of cases occur as a consequence of recent marriage, suppression of menstruation, abortion, and delivery at the full time, when there is no evidence of blood-poisoning. In a certain class of women you have the disease occurring in its most characteristic form; and it is in young strumpets that the disease is best studied. There it is a consequence of gonorrhœa. The inflammation extends to the ovaries. It may be chronic for a considerable time, and produce, as its chief annoyance to the patient, slight loss of blood in consequence of the endometritis which, in this case, accompanies it. Then the disease may produce perioophoric adhesions; and, under proper treatment, you may watch the disappearance of these perioophoric adhesions and the disappearance also of the ovaritis. It is in cases of young strumpets that I have learned most of what I have been describing to you to-day. Now a few words on the treatment; and I begin by telling you that you will find a great many cases chronic—which is almost a synonym for incurable. I advise you, indeed, in many cases which resist a properly conducted treatment, to give up the attempt at cure. You will only bother your patient, make her a valetudinarian, and do her harm, by further persistence in attempting to cure a disease which proper treatment has failed to remove. The treatment is modified according to the nature of the disease, according to its acuteness. In every case you wish rest; and, no doubt, the more serious a case is, the more strict should be your injunction as to rest, and in bed. Physiological rest can only be obtained very imperfectly, for the woman must menstruate, and that is an interference with physiological rest. In married women there are other difficulties which do not require to be described. In many cases the use of leeches applied to the neck of the womb or applied over the inguinal ring is very valuable. The medicines most relied upon are corrosive sublimate, iodide of potash, and bromide of potash. As leeches are specially useful in the acute cases, so frequent blisters over the inguinal ring or in that region are frequently very valuable in the chronic cases. Lastly, it has of late years frequently been decided to spay women in this disease; and many cases of the operation are recorded. That operation is still *sub judice*. Most gynæcologists say that it is condemned already, but upon it I reserve my opinion.

ORIGINAL COMMUNICATIONS.

SYPHILITIC AND IODIC PURPURA.

WITH A

CASE OF FATAL PURPURA FOLLOWING THE ADMINISTRATION OF A SINGLE DOSE OF IODIDE OF POTASSIUM.(a)

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(*Continued from page* 175.)

It is clear from the foregoing narrative that the fatal attack of purpura followed upon a single dose of two grains and a half of iodide of potassium. Owing to my having the good fortune of being able to procure and analyse the previous medicine (of which the infant had taken several bottles), all doubt on this point is set at rest. It becomes of fundamental importance to try and determine whether the iodide of potassium actually caused the purpura. The child was the subject of congenital syphilis. Now, purpura is known to occur from both those causes—syphilis, and the administration of iodide of potassium; so that, in order to determine, if possible, the *rôle* each of these played in the development of the condition which led to the infant's death, it will be necessary to review what is known concerning (1) purpura as an expression of syphilis, and (2) purpura caused by the ingestion of iodide of potassium.

1. Syphilitic Purpura.

Though many physicians and surgeons appear to be familiar with the fact that syphilis is sometimes attended with a purpuric eruption, extremely scanty references on this point are to be found in the literature of the subject. Among those I have been able to find may be mentioned a statement by Mr. Spencer Wells in a lecture "On the Treatment of Syphilis,"(b) that "syphilitic purpura must be treated by a generous diet, and the iodide of potassium with decoction of bark." Dr. Wilson Fox has recorded a very interesting case bearing on the subject, though not defi-

(a) Read before the Royal Medical and Chirurgical Society.

(b) *Medical Times and Gazette*, vol. ii. 1856, page 611.

nitely placed by him in this category.(c) A patient contracted an indurated chancre, followed by an indurated bubo, in November, 1864, for which he took mercury until his mouth became sore. He continued well until April, 1865, when he was attacked with sore throat and ecthymatous pustules upon the scalp. He took no more mercury, with the exception of a few doses of the bichloride. He took iodide of potassium for some time, but not continuously. Since the sore throat had supervened, he had felt very ill. A week before admission, he noticed some swelling of the inside of both thighs, of a reddish hue, attended with considerable pain; the discolouration and swelling quickly spread over the inside of the thighs, and the colour changed to purple. The hæmorrhages were arrested by treatment with astringents, but the patient died of exhaustion. Dr. Wilson Fox made a careful microscopic examination of the tissues. He writes:—"Sections of the skin near, but not in, the parts affected with hæmorrhagic extravasations, gave either with Schultze's solution (chloride of zinc and iodine) or with iodine alone, or iodine and sulphuric acid, a most intense reddish-brown, in portions between the fat vesicles corresponding to the course of the capillaries. This colouration did not pass much into the papillæ. The colour with Schultze's reagent was somewhat evanescent, but that with iodine lasted from forty-eight to seventy-two hours, and in some preparations the marking out of the capillaries was beautifully effected in this manner. This change was not constantly met with in all portions of the skin tested, but was best marked in portions taken in close proximity to the affected spots. In some of these parts, in which I succeeded in isolating portions of the capillaries and smaller arteries, I found that they broke down very easily, that some presented a peculiar glistening, waxy look, while others had a non-granular appearance, in no degree corresponding to the appearances observed in health." Dr. Wilson Fox appends in a footnote a most interesting statement, "that whilst he did not know of any observations in other authors on the relation between syphilis and purpura, a purpuric eruption had been known to follow the administration of iodide of potassium by Ricord and Virchow. Upon reference to Virchow's book,(d) I find he states that "Ricord observed purpura in a syphilitic subject *whenever he administered iodide of potassium*, [italics my own,] and I myself have seen a case of cancer in which, after full doses of iodide of potassium, severe hæmorrhage from the gums and genitals appeared."

Bälz of Leipzig(e) has written an article on "Hæmorrhagic Syphilis," in which he records the following important case:—A man, aged twenty-five, contracted a hard chancre at the begining of 1873, with an enlarged gland in the left groin. This was followed by a secondary eruption over the whole body, which was treated with mercury. The eruption temporarily disappeared, but returned in patches on the limbs and trunk. In February, 1874, one of his little fingers became suddenly stiff, and on attempting to move it there was pain. This stiffness shortly affected the whole hand and elbow-joint. He was obliged to keep his bed. About ten days or a fortnight later, and without any premonitory symptoms, during the night his body became covered with a hæmorrhagic exanthem, consisting partly of confluent, partly of discrete, densely red patches, varying in size from that of a pea to half-a-crown. This was not accompanied by any marked constitutional disturbance. The gums and teeth appeared healthy, but there was *fœtor ex ore*. The voice was hoarse. The urine was dark, acid, free from albumen and blood. He had also pain in the right chest, over some parts of which there was a pleuritic rub. Ice was ordered to the side. On the following day there was a large hæmorrhagic spot corresponding exactly with where the ice-bag had been placed. On pressure the colour did not fade; the exuded blood seemed to be partly in the epidermis and partly in the corium. The joint-affection came and went fitfully, but finally disappeared. He was discharged from the hospital in about three weeks, at which time the body was still covered with bruise-like remains of the hæmorrhagic patches, and a fine branny desquamative rash. He was treated with the infusion of secalé cornutum. This patient took iodide of potassium *after* the purpura had made its appearance. It had to be discontinued on account of its producing coryza and acne. Dr. Bälz remarks that the patient had always lived well; that he was not a bleeder, and had not suffered from any disease likely to predispose to the hæmorrhagic diathesis. Nor could the disease be scurvy, seeing the sudden onset and complete immunity of the gums and mouth. The joint-affection, though it resembled rheumatism, was really due to an effusion of blood into the joint and tissues around it. It differed from rheumatism in the absence of fever and all constitutional disturbance. He refers to an analogous case, in which a well-to-do man who had had syphilis, and was staying, more for pleasure than from necessity, in one of the German spas, suddenly got rigors and fever, with general disturbance, which were immediately followed by profuse epistaxis, blood in the sputa, the stools, and the urine. A few days later the patient was covered with a copious papular syphilide—just as in severe variola, where the eruption is preceded by a purpuric outbreak. This man died on the tenth day in acute collapse. Dr. Bälz thinks that the hæmorrhages are due to the syphilitic poison, "determined, perhaps, by some *causa proxima* at present unknown to us," but which are, no doubt, the result of changes in the arterial walls. Bälz remarks that scarcely any mention is made of hæmorrhagic syphilis in German literature except by Zeissl,(f) who states that "transudation of blood-colouring matter, and even repeated hæmorrhages, occur in weakly and ill-nourished individuals."

At a meeting of the Berlin Medical Society, October 31, 1877,(g) Herr Behrend brought forward some cases of hæmorrhagic affections connected with congenital syphilis, and which he proposed to designate *syphilis neonatorum hæmorrhagica*. The affection, he said, was characterised by the formation of ecchymoses upon the skin, and by bleeding from the navel after separation of the cord. Thus the cases might be distinguished as *purpura syphilitica*, and as *omphalorrhagia syphilitica*, which might appear together or separately, and might be associated with profuse hæmorrhages from trifling injuries. The first case he narrated was that of a well-nourished child having a scaly syphilide, upon the disappearance of which numerous petechiæ the size of a pin's head made their appearance, and subsided on the use of mercurial baths. A sore which had formed over the right tuber ischii, and which probably had some connexion with the syphilitic dyscrasia, at the same time healed. The child, however, died at the age of fourteen months with symptoms of internal hydrocephalus. In a second child, well formed and well nourished at birth, and which died shortly afterwards from failure of respiration, there were petechiæ and ecchymoses in great numbers scattered over the whole body. At the necropsy, syphilitic disease of the lungs, liver, spleen, and bones was found. The author had been able to collect many similar cases from the literature of the subject, but in only a few instances was a direct connexion between the syphilis and the purpura referred to, probably because the hæmorrhages had been hitherto regarded as dependent upon other causes. He further narrated five cases of omphalorrhagia syphilitica, three occurring in succession in one family, the father being the subject of well-marked syphilis. In one case, hæmorrhage from the umbilicus co-existed with cutaneous hæmorrhages. Herr Behrend, in discussing the nature of the affection, differentiated it from hæmophilia; in syphilis the tendency to hæmorrhage being only transitory. He attributed the hæmorrhages to a delicacy of walls of the vessels (*leicht Zerreisslichkeit der Gefasswand*) due to a depraved quality of the blood induced by the syphilitic process. In the discussion which followed the paper, Herr Simon remarked that hæmorrhages were not confined to cases of congenital syphilis, but occurred also in the acquired disease. In syphilitic adults purpura of the lower extremities was sometimes seen, whilst the upper part of the body only showed roseola. This observation, he thought, indicated that the hindrance to the circulation caused the blood to exude. A similar occurrence was noticed in variola, and in cachectic conditions of various kinds. According to Cohnheim, exudation of coloured corpuscles occurred under conditions of stasis. In hæmorrhages it always remained

(c) "A Case of Fatal Purpura, with Waxy Degeneration of Striated Muscles, and also of the Vessels in the affected parts" (*Brit. and For. Med.-Chir. Review*, 1865, page 480, vol. xxxvi.

(d) "Handbuch der spre. Pathol. und Therap.," Band i., s. 242.

(e) *Archiv der Heilkunde*, 1875. Abstract in *Medical Examiner*, vol. i. 1876, page 14.

(f) "Lehrbuch der Syphilis," Band ii. 92. I have not had the opportunity of referring to Zeissl's work.

(g) *Berlin. Klin. Wochenschrift*, 11 März, 1878.

an open question whether they were a specific symptom of syphilis, or were merely a sign of cachexia. Several subsequent speakers called in question the right of the purpura, in the cases brought forward, to be regarded as due to syphilis, though it might have occurred in syphilitic subjects. Some thought the hæmorrhages were due to the cachexia induced by the syphilis, and that other agencies besides syphilis were capable of producing this. Professor Henoch drew attention to the fact that hæmorrhages, sores, etc., occurred commonly enough in the miserable and emaciated infants which made up clinical material, but are not met with in private practice. Herr Behrend, in reply, stated that his cases were well nourished and not cachectic when the hæmorrhagic symptoms first appeared. It is noteworthy that not one of the speakers alluded to the production of purpura by iodide of potassium, or to the possibility of this being the cause in some of the cases, especially in adults.

The following well-marked example of syphilitic purpura I saw with Dr. Richardson, of Commercial-road, in 1876. The extracts I give are from notes taken at the time:—"The mother had six children by her first husband. One died, at the age of two years five months, of bronchitis; the remaining are living and well. None of these children ever had snuffles, sores, or eruption of any kind. She lost her first husband seven years ago, and was again married two years and a half ago. A few months after her second marriage she miscarried, and remained ailing for some time. She again became pregnant, and at what she calculated the eighth month gave birth to twins, one of which is the patient. Both children were yellow at birth, especially the patient, whose urine was scanty, and stained the linen yellow or brown. As early as the fifth day after birth the mother noticed 'a lump' in the patient's abdomen. As far as she can remember, the lump (spleen) reached as low then as now, but it has grown more forwards. Soon after birth the child had snuffles. Five or six weeks before I saw the patient it had redness about the nates—'it was a regular raw appearance,' the mother said. The child has never thriven, and has always been weak. It was fifteen months old when I saw it. It had a large head, which is kept constantly retracted, very marked cachexia, and great enlargement of the liver and spleen, these viscera reaching down to the ileum and distending the abdomen. Scattered over the body are minute purpuric spots; they are not numerous—at a guess, about thirty or forty. They are situated on the arms, legs, back, face, and head, especially over occipital region. They vary in colour from a bright purple to brownish-red; the colour is not altered by pressure. There are no ecchymoses on the mucous membrane of mouth." This child had not taken iodide of potassium. It died a few days later, but Dr. Richardson was unable to persuade the parents to allow of a post-mortem examination.

I have also seen a case of secondary syphilis in the adult, in which the eruption was in part purpuric. A male, aged twenty-one, had primary syphilis seven weeks before admission into the London Hospital. Three weeks after the sore was noticed, an eruption appeared, at first on the arms, then on the trunk and lower extremities. Shortly before admission he became hoarse. He had been living badly. When admitted there was induration of the prepuce. He had an eruption over his body, which was papular on the arms (lichen syphiliticus), and purpuric on the legs. It was for the most part symmetrical and arranged in clusters. There were mucous patches on the soft palate; the tonsils were ragged. The temperature ranged from 98·4° to 101·6°. There were no noticeable changes in the heart or lungs. The patient, however, died one day suddenly in a convulsion. The necropsy showed gummata in the heart (the immediate cause of death) and in the testicle. The spleen was puckered at one spot. This patient, I believe, had never taken iodide of potassium.(h)

I have at the present time a patient under my care with purpura apparently due to syphilis. A male, aged fifty, contracted a venereal sore on the penis, followed by enlarged non-suppurating glands in the groin. For this he consulted Dr. Simpson, of Hackney-road, who has kindly informed me that the treatment he adopted consisted of perchloride of mercury internally, and an ointment of the oxide of mercury applied to the sore. The latter was subsequently changed for a lotion of sulphate of copper. The sore healed in about three weeks, leaving, the patient said, "a kind of a lump," which gradually died away. About four or five weeks after he noticed the sore, one day when stripped to wash, he found his legs were covered with spots. These were at this time entirely confined to the legs and thighs, affecting mainly the former, and consisted, according to his unprompted statement, of "blood-red spots, not rough or scaly; they did not itch"; and he could pass his fingers over the places without feeling them. They remained in much the same condition for many weeks; he could not say whether some died away and others appeared. When the eruption had been out a week he consulted another medical man, and from his description of the effects of the medicine given, it is probable that it contained iodide of potassium. A fortnight later he came to the London Hospital, with the eruption still on his legs and thighs, but not elsewhere. He was seen by a clinical assistant, who did not record the exact character of the rash. Iodide of potassium was prescribed, at first in five-grain and later in ten-grain doses. Whilst under this treatment the spots remained on the legs, neither better nor worse, but a scaly eruption made its appearance upon the neck, head, arms, trunk, scrotum, and thighs. I first saw the patient on March 23, 1878, and was struck with the purpuric character of the eruption on the legs. I found there were a number of petechial spots and extravasations on both legs below the knee, and very few on the thighs. There were none on any other part of the body. These spots ranged in size from a pin's head to a pea or larger, and varied in tint from a bright red to a reddish-purple; the colour did not disappear in the least on pressure. He asserted that the spots on the legs I have described had had this character from the first. On his neck, head, and trunk slightly, and freely scattered over the arms, thighs, and scrotum, were serpiginous, marginated spots of coppery colour, varying in size from a pea to a half-crown. The edge was somewhat raised and covered with a fine branny scurf. In a few places the spots were tubercular. The arrangement of the spots had no definite symmetry, and ordinary psoriasis positions were avoided rather than selected. The pharynx and larynx were congested, but not ulcerated. There was no iritis. I discontinued the iodide of potassium, and when the patient was seen two days later (March 25) the purpuric spots had greatly faded. Two days later still there remained only some stains on the legs; the scaly serpiginous eruption had not altered. In this case, though the iodide of potassium appeared to aggravate and maintain the purpura, as far as can be ascertained the hæmorrhages made their appearance previous to the administration of this drug. It is *possible*, however, that he was mistaken as to the purpuric spots coming before he took iodide of potassium. The case is valuable on this account, as showing the connexion between these two causes, and the importance of investigating most critically any case of purpura suspected of being syphilitic or iodic.(i)

(To be continued).

(h) Report of Medical and Surgical Registrars, London Hospital, 1875, page 28.

CASES IN PRACTICE.

By E. L. HUSSEY, F.R.C.S. Eng.

Fracture of the Leg—Abscess—Hæmorrhage—Secondary Amputation—Death from Exhaustion.

A CARPENTER, twenty-six years of age, was admitted into the Radcliffe Infirmary, under my care, February 13, 1871, with a fracture of the bones of his right leg in the lower third. He was at work upon a new building, when one of the "principal" timbers fell, and knocked him down against an iron column. He was released by his fellow workmen; and his leg was found to be broken just above the ankle. He was brought to the Infirmary at once.

Nothing unusual presented itself in the course of the case until the morning of the 28th, when he was attacked with severe shivering. Matter formed soon afterwards in the lower part of the leg; this was discharged through an opening on

(i) This patient has remained constantly under treatment since this paper was read. The purpuric spots on his legs continue when iodide has been suspended as long as two months, but are always aggravated by the drug. Lately the purpura has extended to the arms. He allowed me to cut out a purpuric spot to examine microscopically. I could find no definite degeneration of the vessels or staining by iodine, but the portion of skin was small.

the inner side. On March 8 it was necessary to make another opening into a collection of matter over the outer malleolus. In the course of the following night there was some considerable bleeding from the inner opening. On the 13th, at two o'clock in the morning, the House-Surgeon was summoned on account of more severe hæmorrhage; it was checked by a compress and bandage. The next day, upon a return of the hæmorrhage, I enlarged the wound, but without finding any bleeding vessel to which a ligature could be applied. The bleeding seemed to be venous in character. I passed a tenaculum deeply through the structures on the inner side of the limb, at the spot from which the bleeding chiefly came, and tied a knot with a firm thread. There was not any further hæmorrhage.

For some days the man continued low in general power, though without actually losing strength. His pulse was quick and weak, and his general temperature high. It was now observed that the ankle-joint was open, and that the bones generally were bare of cartilage and periosteum. There was little ground for hope of his recovering a useful limb. Amputation being the only course which offered a reasonable chance of saving the man's life, I waited for some evidence of restorative power—such as suppuration or healthy secretion—before proceeding to the operation. The man's general state having somewhat improved, and his consent having been obtained, I amputated the leg below the knee on March 21.

On the 27th another collection of matter showed itself, on the inner side of the knee. This was opened with a lancet, and about six ounces of matter removed. The disposition to hæmorrhage now appeared in the stump. Considerable oozing took place, and the blood escaped through the dressings. The stump was opened twice to arrest the flow of blood. On the 30th, at nine o'clock at night, the stump was opened for the third time. A large clot was cleared out, and a pad of lint soaked in Ruspini's styptic introduced. A compress of lint was laid over the femoral vessels, and the whole retained by a bandage up the thigh. After this there was not any further loss of blood. The man became weaker by degrees, and died exhausted on April 17.

Upon examination of the body, a large abscess was found at the back of the knee, extending round the inner side and to the front, as well as about half-way up the thigh among the muscles. In one or two places the thigh-bone was bare of periosteum. The articular cartilages of the knee-joint had disappeared, and the cavity of the joint communicated with the abscess. The viscera generally were pale and bloodless, but did not present any morbid appearance. On the right side of the chest the pleura at the upper part was adherent by old adhesions.

Remarks.—The man was patient in temper, but not of strong constitutional power. There was never any swelling around the injured parts, nor were the common local signs of inflammation present, which generally precede the formation of matter. No unusual symptom was observed until the sixteenth day after admission. From that time the patient's strength began to fail. He was supported, as far as his power of taking food allowed; and ale, wine, and brandy were administered. Quinine and cod-liver oil were also given.

Scirrhous Breast—Amputation—Hæmorrhage after Operation—Wound opened three times—No Bleeding Vessel observed.

A married woman, aged forty-three, was admitted into the Radcliffe Infirmary under my care, September 16, 1857, with a scirrhous tumour of the left breast, which had been observed for six months. She had borne several children—the last in June, 1856. She was a low-spirited woman; and she had been much depressed lately by trouble in her family. Her father died "asthmatic"; her mother lived to between eighty and ninety years of age; some of her sisters died with phthisis. She had an abscess in the breast after her first confinement; and she did not suckle any of her children afterwards with that breast. She first felt a pain in the organ six months ago, and on examination found a "lump" in it. This has continued to grow in size up to the present time. Latterly it has never been free from pain. The skin round the nipple is adherent to the tumour, and the nipple is retracted. The gland itself is not adherent to the pectoral muscle. An enlarged lymphatic gland can be felt deep in the axilla.

The breast was amputated on October 2, and the enlarged lymphatic gland was removed from the axilla at the operation. The amount of blood lost was inconsiderable; only three or four ligatures were applied, nine being wanted in the axilla. The edges of the wound were drawn together with strips of adhesive plaster. A compress of lint was applied on each side of the wound, and a roller passed round the chest and over the shoulder. The woman was placed in bed, with the arm supported by a pillow.

In the afternoon she complained of the tightness of the dressings, and of pain in the axilla and down the arm. The bandage was therefore cut through, when several clots escaped from under the dressings, and blood began to flow freely from the sternal end of the incision. About six o'clock I opened the wound and removed the clots. The bleeding came from the axilla, but no open vessel could be seen, nor any single spot to which a ligature could be applied. A compress of lint was placed in the axilla. The wound was drawn together with a single strip of plaster, and a piece of lint soaked in a strong solution of alum was laid upon it. A pill containing a grain of opium was given. Between eight and nine o'clock blood was again observed to be flowing freely. The wound was opened again without finding any bleeding point. A compress of lint soaked in a strong solution of gallic acid was inserted into the wound. About two hours afterwards blood was again observed to flow. The wound was opened a third time. The line of incision was extended upwards farther into the axilla; the clots were cleared out, but no bleeding vessel could be seen. Two pieces of sponge, soaked in a strong solution of gallic acid, were introduced. A large compress of cotton-wool was placed in the axilla, under the spot, as well as I could judge, from which the hæmorrhage came. A turn of a roller was applied round the chest, and a small pillow placed under the scapula. Another grain of opium was given, and cold beef-tea ordered for drink. Blood continued to flow, but not so freely, till about three o'clock in the morning. It seemed to be checked by dropping some of the solution of gallic acid into the open part of the wound on to the pieces of sponge. The patient passed a fairly good night, and slept soundly at intervals.

On the 7th one of the sponges was withdrawn from the wound, and on the 10th the woman was moved into a fresh bed. The last ligature came away on the 11th. She complained of uneasiness from constipation, and two pills of extract of colocynth were given to her. The bowels acted freely the next day (the 12th)—the first time since the operation.

The remaining piece of sponge was removed on the 14th. She was discharged from the Infirmary on November 11, the wound having nearly healed.

On December 20 I saw her. The cicatrix was firm and contracted; the integument around it was puckered, thickened, and discoloured. On April 27 following I saw her at her own home. A large ulcerated wound, with everted edges, occupied the site of the cicatrix, attended with profuse watery discharge, evidently of a cancerous nature. Her general strength failed rapidly, and she died on May 25, 1858.

Compound Fracture of Leg—Secondary Hæmorrhage—Death from Exhaustion.

A farm labourer, aged thirty-two, rather given to drinking, and (as I learned after his death) subject to fits, was admitted into the Radcliffe Infirmary, under my care, on November 6, 1852, with a compound comminuted fracture of the bones of the right leg. Early in the morning, when under the influence of drink, he was riding on a heavily loaded waggon. In trying to get down, he fell; and one, or both, of the wheels went over the limb. The accident was not followed by any large amount of bleeding. The leg was put on splints without difficulty, in a good position. Both tibial arteries could be felt at the ankle.

Some days after admission, erysipelas appeared on the face and on the leg; and it spread upwards toward the nates. On the 18th free suppuration was established, and the erysipelas was subsiding favourably. In the night he was very restless. Towards morning he kicked the bed-clothes off. The nurse thought he had a "fit." Some blood was observed upon the sheet under the splint, and some on the floor. It had ceased to flow when the House-Surgeon came to the ward. The man was evidently sinking. He died before noon.

Several ounces of coagulated blood surrounded the broken pieces of bone, and passed deep among the muscles. The posterior tibial artery had given way by ulceration in two

places, and the anterior in one place. The lower fragment of the shaft of the tibia was driven firmly into the medullary cavity of the upper part, and the foot was thus held in a good relative position.

Remarks.—At the time of admission both tibial arteries were felt beating at the ankle. The coats of the vessels were not injured enough to hinder the free passage of the blood through them. The foot was in good position. In a man of the patient's age there was good ground for hope of recovery.

Oxford.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES IN MR. BRYANT'S WARDS.

Undetected Vertical Fracture of Patella—Necrosis—Suppuration in Knee-Joint—Recovery.

Robert D., aged eight years, was first admitted on April 24, 1878. He stated that in January while going upstairs he had struck his left knee against the steps. He had not much pain at the time, and was not taken to any medical man, but was unable to walk about. In February the knee began to swell, and he was then taken to Hammersmith Hospital, where he remained for a fortnight, returning thereafter to his home, and going daily to school. At school he was struck over the knees with a cane, and on one occasion was knocked down, falling on his back. After this he was under medical treatment at home until admission here. When admitted the circumference of the left knee round the middle of the patella was one inch greater than that of the right. There was a fluctuating swelling in the fore part of the joint; the patella could be felt, and was slightly movable, and there was no impairment of motion of the joint. The only pain felt was when the anterior surface of the patella was pressed. Patient was a healthy, well-nourished lad. He remained in the hospital until the end of June. The swelling was opened, and some pus evacuated, and, with rest and nourishing diet, this treatment was apparently successful, as the boy remained quite well until the beginning of August. On August 12 he was re-admitted, stating that five days before, while bathing, he had been suddenly seised with great pain in the left leg and knee, which continued when he walked. When he came under notice the knee-joint was very much swollen, and there was a discharging sinus at the seat of old incision. An ice-bag was applied, the limb was kept at rest, and under this treatment the swelling again diminished, and patient was discharged on September 24. On October 3 he was again admitted with acute inflammation of the joint; and on October 18 a free incision was made along the outer side of the patella, exposing that bone and the interior of the joint. An old-standing imperfect vertical fracture of the upper third of the patella was discovered, and part of the bone external to the fracture was found to be necrosed. The outer half of the bone was then sawn through and removed. Another incision was made over the inner side of the patella, and free drainage established. The synovial membranes and the femoral and tibial cartilages were much thickened and inflamed.

November 6.—The case has been going on well; temperature never having been above 101°, and averaging 100°. To-day some pus was let out below external wound.

23rd.—Some pus was to-day let out from a swelling at the inner part of the popliteal space. Temperature is now about normal, and the wounds are healthy. The further course of the case was favourable, the wounds healing slowly by granulation. In the beginning of January patient was able to get about the wards, and on February 3 he was discharged, walking, however, with crutches, and not bearing on the injured limb. On February 17 he presented himself for inspection, and then the wounds had entirely healed, and, although the parts were somewhat unshapely, a useful limb was left. In commenting upon this case, Mr. Bryant said that he had seen several instances where undetected fracture of the patella had led to similar mischief. A peculiarity of the case was the apparently trivial nature of the accident, and the lightness of the symptoms, which at first prevented patient's friends applying anywhere for relief.

Syphilitic Osteitis of Patella.

Thos. N., aged thirty-one years, a labourer, single, was admitted in August, 1878, and subsequently readmitted in November of the same year with various manifestations of syphilis. He had contracted the disease about three or four years previously, having always had good health before that time. About twelve months before admission he first noticed a swelling of the right patella which had since increased in size, frequently causing him great pain. In November, when examined, the right patella was found to be thickened and enlarged transversely, being two inches and three quarters in that diameter, the left being two inches in the same diameter. The parts in front were also thickened, and the whole circumference of the knee was increased. Patient had also perforation of the palate at the junction of the hard and soft portions, and loss of the uvula. Patient was sure he had not received any blow on the patella, which might have started the inflammation.

The treatment here consisted in the internal administration of iodide of potassium in full doses (ten to fifteen grains) with cinchona. The whole of the tissues in front of the patella sloughed, the inflammation commencing in the bursa patellæ. On December 30 the slough had entirely separated, and a healing but somewhat indolent sore was left. At the same time the patella had markedly decreased in size.

Patient still remains in the hospital (February 17), and the wound has not quite healed. Very little difference can now be felt between the two patellæ. This was undoubtedly a case of syphilitic osteitis, and its occurrence in such a place is sufficiently rare to be worth recording.

Osteitis of the Tibia—Trephining.

Alice J., aged sixteen years, was admitted on December 4, 1878, with a thickening of the shaft of the right tibia, which she stated had been coming on for about three years. About four years ago she fell on a stone and cut her right knee; this is the only history she can give of any likely origin of her condition. Otherwise her general health had always been good. There was on admission some redness of the leg, which disappeared after elevation and rest of the limb. She also complained a good deal of pain in the shin-bone; she likened the sensation to "the tick of a clock." On December 13, Mr. Bryant made an incision about three inches long over the front of the tibia, at the part where patient complained of pain, and scraping off the periosteum, trephined out a piece of bone, the trephine reaching as far as the medullary canal. No pus was found, but the bone was very much thickened and cancellous in structure.

The case subsequently has gone on well, and now the wound is granulating healthily, and the whole thickness of the bone has decreased; there has also been cessation of the pre-existing pain. Mr. Bryant remarked that he considered early incision in bone, in cases of osteitis, to be of the greatest value, whether by trephining, cutting, or drilling. Men were often deterred from making early incision in such cases, and in periostitis, from the fear of being criticised by friends of the patients because no "matter" was found after an incision; but in all those inflammatory affections the tension should be relieved, and by such treatment the necrosis caused by the tension would be prevented, and the pain allayed. In *Guy's Hospital Reports* for this year will appear a paper by Mr. Bryant on this subject, giving details of a number of cases of osteitis treated by drilling, trephining, etc.

Other Cases.

Among other interesting cases in Mr. Bryant's wards was that of a man aged twenty-eight, who had been operated on for the removal of a vesico-prostatic calculus. In 1867 he was a patient under Mr. Cock, suffering with hæmaturia and incontinence of urine. He was then sounded for stone, but none was found. Since leaving hospital he had had more or less incontinence, gradually increasing until, on admission again in the end of November last, it was almost complete. In the nine months previous to coming in he passed "sand" with his urine, suffered much from pain in the lumbar region, over the symphysis pubis, in the glans penis, etc., and occasionally passed blood in his urine. When examined on

admission, per rectum a hard mass was detected in the situation of the prostate, and per urethram a stone was found in that position by the catheter. This was removed by the ordinary lateral operation. The stone was a large one, and was no doubt the cause of the trouble eleven years ago and since. By its presence in the prostate it had almost completely destroyed the structure of that gland. Patient had had no seminal emissions for many years, probably from the blocking up of the seminal ducts by pressure, and the bladder had been converted from a receptacle for urine into a mere passage for it. Since operation he has passed several small phosphatic calculi with his urine. The wound is healing well, and his general health is good.

In the female ward there is a case of a woman aged about forty, with double psoas and lumbar abscesses. In this case Mr. Bryant opened the swelling on one side only, and the pus from both sides was freely evacuated through the opening. The cavity was injected with dilute solution of iodine, and this treatment has been kept up for some time. No hectic has supervened; patient's health has improved, and the discharge has very much decreased. This is one of a series of cases which have been treated in the same manner, and all with good results.

In the accident ward was a case which Mr. Bryant pointed out might have a medico-legal interest. It was that of a man on whose foot a hogshead of ale had fallen. The whole ankle was much swollen and bruised, and within fourteen hours of the accident large blisters filled with bloody serum had appeared over the dorsum and sides of the foot. Had he been asked in court what time should elapse between such an accident and the appearance of such blisters, he would have answered, twenty-four hours; and it was easy enough to understand that there might be circumstances where such evidence would be called for.

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Medical Times and Gazette.

SATURDAY, MARCH 15, 1879.

THE MEDICAL ACTS AMENDMENT BILL.

On the motion for the second reading of the Medical Bill, in the House of Lords, on Tuesday evening, the Marquis of Ripon asked the Lord President whether there should be in the Bill a distinct statutory limitation to the amount of fees which might be levied from persons desirous of entering the medical profession? It seemed as if it might be possible under the Bill, as it stood, to levy larger fees than were desirable. He also expressed a hope that no avoidable delay would be allowed to occur in the appointment of the Committee of the House of Commons to consider the composition of the Medical Council, and that that Committee would consider the objects for which the Medical Council had been created, and the constitution proper for the attainment of those objects. He thought that many of those who advocated changes in the composition of the Council did so because they proposed to make a change in the objects for which it exists; while, in his opinion, its constitution ought to be determined by the objects for which it exists, and not the objects by the constitution. He trusted, however, that the question of the constitution of the Council would not be allowed to stop the progress of the Bill. No side issues ought to stand in the way of the Bill; and if that passed, the Lord President would be encouraged, he hoped, to proceed with other required medical reforms. But if it did not pass, he feared that his noble friend might, like himself, be inclined to throw up the matter altogether; and he desired to impress upon those who wished to obtain other reforms than those included in the Bill, that they would act far more wisely by supporting that measure, than by appearing in the position of persons who desired to obstruct useful legislation intended to benefit the public.

The Lord President, the Duke of Richmond and Gordon, was, of course, very grateful for the support of Lord Ripon, and promised to look into the matter of the limitation of fees, and see if he could propose any amendment with regard to it in committee. As to the Committee on the constitution of the Medical Council, he could not say what would happen in the other House; but he believed that a proposal to appoint such a Committee would be made there in the course of the present week, and he hoped the reference to the Committee would be large enough to include the points adverted to by Lord Ripon. His Grace confessed that, should his Bill make shipwreck, he should be very much disposed to admit that his mission was not to legislate for medical reform, and to leave it in the hands of those who thought they had better means of doing it. The Bill was read a second time, and the Committee on it was fixed for Thursday, the 20th inst.

Some of the medical authorities have the Bill already under consideration, and representations and deputations about it are beginning to flow in upon the Lord President. And it seems very possible that his proposal for the appointment of a Committee to consider the question of the constitution of the Medical Council may help to hinder and imperil, instead of facilitating the passing of his Bill. For it may very well happen that some of the medical authorities may hold that the question of the constitution of the Council ought to be settled before the Bill defining its powers is passed. We hear, indeed, that the Council of the Royal College of Surgeons of England have decided to wait till the Bill reaches the House of Commons, and then to protest against its being proceeded with till the composition of the Council that is to rule over the medical authorities shall have been finally settled.

Since the above was in type the position of things has been altered, and Government have changed front in the management of their Bill. On Wednesday, Dr. Lush moved the second reading of his Medical Act Amendment Bill, and pointed out that, though in many points it was the same as the Government Bill, it was more perfect, inasmuch as it dealt with matters of great importance which were not included in that measure. It provides for the more perfect protection of the public against unqualified practitioners, and prohibits the signature of

death certificates by any but qualified and registered practitioners, and it deals with the constitution of the Medical Council. After a long, discursive discussion, the debate was adjourned at the suggestion of Lord George Hamilton, who pointed out that he was going on Thursday to move for the appointment of a Committee to inquire into the constitution of the Medical Council. That Committee would, he did not doubt, report within a short time, and its recommendations might be embodied in the Government Bill. He would undertake that the Government Bill should not be proceeded with in the House of Commons till the Committee had reported. The difference between the tone adopted by the Government, in the House of Lords on Tuesday, and that taken in the House of Commons on Wednesday, is remarkable.

LOWER THAMES VALLEY SEWERAGE.

Our readers have not now to learn that for a considerable time earnest efforts have been making to provide for the disposal of the sewerage of the Lower Thames Valley in some other way than by turning it into the Thames; nor that all those efforts have been met by as earnest and persistent opposition. For a long time notices have every now and then appeared in our columns of the schemes brought before the Sewage Board, and of the opposition that each and every scheme excited. But the difficulties with which the Board have to contend culminated in the House of Commons on Friday last, and in a way that demands serious consideration by the Legislature and by all sanitarians. In 1867 legislation made it necessary for communities situated in a valley to discover and adopt some other mode of disposing of their sewage other than the old and simple one of discharging it into the river running through the valley; and, among other communities, the various parishes situated between London and above Staines had to consider how to solve that problem. Great difficulties were encountered, and an Act of Parliament was obtained by which the parishes between the western limits of the metropolis and Hampton Court were formed into one sewerage district. A Board was appointed for the disposal of the sewage, and three years allowed them to do their work in. But the Board was laid under two restrictions: they were forbidden to pollute the river Thames, and they were not to create a nuisance. They set to work and examined twenty-three competing schemes, from which, after innumerable difficulties, they selected one. But it was a scheme that necessitated an appeal to Parliament for new and special powers. It was accordingly embodied in a Bill, and that Bill came before the Lower House for its second reading on the 7th inst. Mr. Gorst acknowledged, on the part of the Sewage Board, that "it had met with a very strong opposition on the part of certain disaffected and disappointed constituents of the Board"; but these persons, he declared, were animated by personal and selfish motives, and all that he asked for was that the Bill should be read a second time, and then submitted to a Select Committee, in order that evidence might be taken in its favour. But the opponents to the scheme would not grant that. Nothing would content them short of the rejection of the second reading of the Bill. They urged that the scheme involved the acquisition of some thirty or forty square miles of land within the Lower Thames Valley district for the purpose of forming a huge sewage-farm; that the land proposed to be so used was often flooded, and always water-logged; that the proper mode of procedure was to have gone to the Local Government Board and obtained the assistance of an inspector, before whom every ratepayer with an objection could have appeared, while the persons whose private rights would be most seriously affected by the measure as it stood would have no *locus standi* before a Select Committee of the House; and that to let it be read a second time and referred to such a Committee would be to create a dangerous precedent. To this last objection to the measure Mr. Childers replied by suggesting that it should be referred to a Hybrid Committee, before which all persons interested could be heard. The Bill did not receive any direct support from the Government. The President of the Local Government Board did remark that a Bill promoted by a body representing, after a very recent election, a large number of ratepayers was entitled to a very careful consideration; and that the question was whether the House would take upon itself, on mere *ex parte* statements, to put a stop to a measure which was a *bond fide* attempt to perform obligations cast upon the promoters by Parliament; and added that, "personally, he should feel it his duty to vote for the second reading"; but he declined to state the views of the Government on the question. And Lord George Hamilton also spoke in favour of the second reading, observing that the Board had taken an enormous amount of evidence, and had, after due consideration, deliberately selected the scheme, embodied in the measure, as the one most likely to meet the exceptional difficulties with which they had to contend. But the opposition was not to be moved; and in a House of 314 members the Bill was rejected by a majority of twenty-two.

Such a result must greatly discourage the members of the Board of Sewerage—and, indeed, all sanitary authorities. We have no means of judging of the real weight of the considerations by which the Board were led to prefer the scheme thus rejected to the two-and-twenty other schemes submitted to them: we know that it is very positively asserted that the land chosen by the Board for the formation of its sewage-farm is entirely unfit for such a purpose; and we admit that the selected scheme may possibly be a bad one. But we must think that the summary rejection of the Bill was most unwise and unfortunate. Every sanitary scheme of any magnitude is sure, till sanitary teaching is much more widely spread and believed in, to meet with determined opposition, excited by interests of many kinds; and the disposal of the sewage of the Lower Thames Valley district is a question of exceptional magnitude and importance. The area to be dealt with is very large, having a population of over a million, very wealthy, and favoured to an unusual degree in many ways. No new scheme can be devised for the disposal of the sewage of such a district that will not offend some local interests, alarm, and probably really injure, some householders and landowners, and moreover excite the hostility of frightened ratepayers, of the advocates and promoters of rival schemes, and of the very many who do not believe in sanitation. Nevertheless, a new scheme had to be made. The Legislature had decided that the Thames—above London, at least—should no longer be the convenient common sewer of the districts through which it flows; and had authorised the formation of the Lower Thames Valley district, and the appointment of a joint board to deal with its sewerage, only barring them from using the Thames, and forbidding the creation of a new nuisance. The Board surely had a right to expect, after the immense amount of time and labour bestowed by them on their task, to receive some consideration from the Legislature which imposed that task, and some decided help from a Government which has openly and repeatedly declared that it places the care of the public health in the very foremost rank of the objects of its special thought and solicitude. But Government, as a Government, shirked affording the Board any help in getting a searching inquiry into the merits and demerits of its scheme; and the House of Commons refused even to consider it, and summarily rejected it on the *ex parte* statements of its opponents.

All sanitary authorities will, we fear, feel that such conduct must weaken their hands, and will strengthen those of the persons and interests that are ever ready to oppose all sanitary measures and proceedings.

VIRCHOW ON THE PLAGUE.

Although we may hope that the chances of the invasion of Great Britain by the plague are very small, it is well to know all about it should it come, and especially what views eminent authorities hold as to its nature, the precautions which should be taken against it, etc. Hence Professor Virchow's lecture, delivered before the Berlin Medical Society on February 19,(a) deserves special attention, and we shall endeavour to put our readers in possession of an abstract of its principal points.

Virchow begins by stating that our knowledge of the plague in the light of modern medical science is practically *nil*. The latest and most copious reports on the subject date from the great epidemic in Egypt, and from the Commission of which Bulard, Clot-Bey, and others were members. "The clinical and anatomical methods which the Commissioners used in their investigation were not indeed unsuitable; but they were so imperfect that we are still in doubt what the state of things in Egypt really was." Hence Virchow blames the European Governments, and especially the Russian, for not sending properly qualified men to the places where plague was said to be prevalent, to examine the disease with modern appliances, and in harmony with modern knowledge. The universities of Kazan and Kharkov could have furnished thoroughly trained observers; whereas, in fact, unknown men have been selected for the work. Passing to the plague itself, Virchow points out that we do not even now know whether the buboes so constantly spoken of as a symptom are an integral part of the disease, or whether the very acute forms of plague can occur without them. This, he says, is one of the most doubtful questions, and one on which the old observers were not agreed. Another question is: What is the nature of the change in the lymphatic glands on which the buboes depend? Is it a cellular hyperplasia, or an hyperæmia? May hyperæmia be combined with hæmorrhagic effusions into the gland substance? In fact, is it not probable that in the plague-bubo all the changes occur which we now know to be associated with all acute glandular swellings of whatever kind? Virchow inclines to answer this last question in the affirmative.

We are also in the dark as to why the plague-bubo ulcerates. The best observers of this condition assert that the suppuration begins at the outside of the lymphatic gland, but it is difficult to find an analogous change in the ordinary acute febrile diseases of Europe. It is only rarely that in typhoid fever the mesenteric glands suppurate, but then the suppuration, says Virchow, is within the gland, and the process is identical with the formation of a typhoid ulcer in the bowel. Occasionally suppurating inguinal buboes occur in typhoid fever, but in exanthematic typhus Virchow has never met with them. If we knew that the suppuration originated in typhoid fever and in plague in the same way, we should be justified in assuming some relationship between the two diseases. At present there is a gap in our knowledge which needs to be filled up. Still, in spite of our ignorance on this point, Virchow confesses that he regards the buboes as the most important diagnostic signs of plague. They are present in the great majority of all the cases.

Next to them come the "carbuncles," which are found in about one-fifth of the cases, and which closely resemble those of malignant pustule (*Milzbrand*). Virchow has failed to convince himself that they ever occur in the internal organs. Petechiæ, or rather large ecchymoses, are common in the skin, and still more so in internal organs. These three phenomena—buboes, carbuncles, and petechiæ—are the most prominent symptoms of the plague, in company with severe fever of rapid onset, and soon involving the nervous system. Swelling of the spleen is a less characteristic, but appears to be a very constant, symptom; and the pathological alteration is probably similar to that occurring in other infectious diseases. Swelling of the liver and kidneys is also described, and may probably be referred to acute parenchymatous degeneration.

In spite of the fact, already mentioned, that buboes are never found in exanthematous typhus, Virchow points out that in the beginning of every epidemic of plague the medical men declare the disease to be typhus. This was the case recently when plague appeared in Kurdistan and Mesopotamia. The Turkish doctors diagnosed typhus; and it was not until Dr. Tholozan, the Shah's physician, took up the matter, that the truth came out. And this brings us to the origin of the epidemic in Astrakhan and on the borders of the Caspian Sea. Some authorities, and chief among them Prof. Hirsch of Berlin, believe that the plague was somehow imported from India, where two forms of it have been met with within living memory: the first called "Palipest," which spread from Cutch and Gujerat in the North-Western Provinces south of the Indus into the interior, and which disappeared for the last time in 1838; and the second, an endemic plague, first described by Allan Webb, and which is limited at the present day, according to a recent report of Dr. Lewis, to two small districts in the Himalayas, not far below the snow line on the borders of Nepaul.

Professor Virchow therefore assumes—and the argument appears conclusive—that the present Eastern plague cannot be the Palipest, which was long ago extinct, nor the endemic plague of North India, which has never been known to break its barriers. His own theory is, that the modern plague has come from Kurdistan and Mesopotamia *vid* Persia, and has thence reached the Caspian Sea. Whether its transmission has been due to the movement of troops in the late war cannot, he thinks, be at present decided.

And is what has been called the plague really the plague after all? Professor Virchow thinks that, if the reports of suppurating buboes are correct, it is, though the extent of the epidemic has probably been exaggerated. In any case he considers that his own Government was perfectly right to take all precautions possible against the introduction of the plague into Germany. He doubts, however, the possibility of protecting a long *land* frontier by any system of quarantine based on passes and bills of health. "If the Russian officials," he says, "were angels, it might be done, but they are men, and hence fallible." Virchow refers, *en passant*, to the way in which the province of Bari, in the kingdom of Naples, was protected by quarantine in 1815 against the plague, which had attacked the Noya, one of the last places in Europe which suffered from it. Cordons of troops were drawn round the town at widening intervals, and the sentinels had orders to shoot any person who, after a single warning, tried to break through. The historian Schönberg, who relates the story, says the shooting had "a very salutary effect," and Virchow states his own opinion to be that "Border quarantine (*Grenzsperre*) is an illusion unless shooting is allowed."

The practical measures he suggests are—first, to determine whether the returning Russian army is or is not plague-free; and, secondly, in case the plague should reach Germany, to put in force the sanitary measures common to all epidemics, and, while allowing full communication between country and country, to isolate and treat all patients

(a) "Ueber die Pest" (*Berliner Klin. Wochenschrift*, No. 9, 1879).

as rapidly as possible. Remembering that the plague has certain analogies to malignant pustule (*Milsbrand*), and that the skin and hair of a diseased beast can retain their infectious power for months, Professor Virchow refuses to admit that clothes, bedding, and such like may not convey the contagion of plague in a similar way. The analogy of malignant pustule to plague, it should be added, he considers so strong that he regards "it as very possible that an organism may be discovered by which the disease is conveyed," though "the search for it has scarcely begun." Lastly, Professor Virchow says a word on disinfection, and, in opposition to Professor Pettenkofer, who has advised the German Government to rely on sulphurous acid, he recommends that all clothes, linen, wool, rags, etc., shall be subjected to the dry heat of a proper oven, and he recalls Bulard's assertion that *the immersion of infected objects in water* for a few hours destroys the contagion of the plague entirely. On the whole, the impression which Virchow's lecture leaves on our mind is, that there is no great need for apprehending an epidemic of plague in Western Europe. At any rate it is clear that anything like panic is foolish, and Professor Botkin's recent error in diagnosing syphilis as plague at St. Petersburg should warn medical men to keep their heads cool, and not let their fears get the better of their judgment. Professor Virchow will not have spoken in vain if he helps to tranquillise the European public.

THE WEEK.

TOPICS OF THE DAY.

VERY recently we reported a complaint which had been made in East London of defective water-supply in that locality, and at the meeting, last week, of the Shoreditch Vestry, Lieutenant-Colonel Bolton, the official examiner of the metropolitan water-supply, attended to give certain explanations, more especially with regard to high-pressure services. He stated that having been unofficially requested to inquire into the cause of the complaint, he had ascertained that in many cases the short supply was attributable to the severe state of the weather which had prevailed at the time, and in one or two cases the East London Company had been unable, through circumstances connected with their organisation, to deliver water to the height at which, by the Act of Parliament, they were bound to supply it, viz., forty feet above the level of the pavement. But the principal cause of the very low pressure in the Shoreditch district was attributable to the fact that the consumers who enjoyed the benefit of a constant supply had, in many cases, allowed the water to run from the taps day and night, to prevent its being frozen in the pipes. The pumping returns disclosed the extraordinary fact that during the months of January and February last no less than three millions and a half gallons of water additional were supplied by the Company to the consumers every day. The directors had acknowledged to him (Colonel Bolton) their liability to afford an ample supply of water, and they announced their intention to carry out, at a very heavy cost, a project for dividing their district into zones of levels. If they established three such zones, each could be supplied with water at a greater pressure than at present, and they would thus be able to supply elevations of fifty feet, or probably more, instead of those of thirty feet only, as at present. Colonel Bolton was warmly thanked by the Vestry for the trouble he had taken in the matter.

That portion of the London milk-retailers who are actuated by an honest desire to supply a genuine article to the public have at length taken a step which it is matter of surprise they did not sooner adopt. Last week, by deputation, they waited on Mr. Sclater-Booth at the Local Government Board, to ask him to introduce a clause in the Food and Drugs Amendment Bill, throwing upon farmers the penal liabilities for the adulteration of milk, and lifting them off the shoulders of the retail dealers, who, as they declare, are now frequently fined for the offence of adulteration when they are perfectly innocent of such an act. They showed that in a vast number of instances the retail dealers had been mulcted in heavy penalties and put to great expense, owing to the milk sold being found to be adulterated with water; and they asked that in the Amendment Bill the Government would provide inspectors or analysts appointed to inspect and test the quality of milk at railway-stations and other places, and, in the event of the milk being below the standard required, to issue process against the real offender, the farmer. Mr. Sclater-Booth acknowledged the justice of the demand, and promised to give their representations his best consideration, so that the Bill now before Parliament might be framed, if possible, to meet their views on the subject.

A statement corroborating the report of "the fearful plague" in Ceará published in our issue of February 8, has been put forward by a Brazilian correspondent of the *New York Herald*, describing a series of terrible visitations which have afflicted a large tract of Brazil since March, 1877. The scene of these disasters is the region known as the Sertao, which stretches away inland towards the south, behind the coast ranges, as far down as the latitude of Rio. The portion of the region which seems to have suffered most is the maritime province of Ceará; its population was estimated at 900,000 at the end of 1876, but at the end of 1878 was reduced to 400,000, and was then being still further diminished by disease. In the other portions of the Sertao the correspondent estimates the number of deaths from famine and consequent diseases at more than 300,000. Over 150,000 strangers were at one time bivouacked outside Fortaleza, whose usual population is about 25,000. Upwards of 200 a day were dying there in May last, and as disease increased among them in the shape of fevers, cholera, yellow fever, and at last small-pox, the number of deaths reached to over 1000 on one day, the 10th December last. Finally, a black-spotted disease has appeared, from which those attacked die in a few hours. Allowing for a very natural amount of exaggeration, it would appear that South American Governments do not give themselves much trouble as to the sanitary condition of their populations.

At the Slough Petty Sessions, last week, the owner of the Wraysbury Paper Mills was summoned for causing the river Colne, within three miles of the Thames, to be polluted. The proceedings were taken under the Thames Conservancy Act, 1866, which imposed upon the Conservators the duty of preserving the purity of the Thames and its tributaries. The Conservators give permission to certain water companies to draw water from the Thames, and, in consideration of an annual payment, they undertake the duty of keeping the river clean. It appeared that a notice had been given to the occupier of the Wraysbury Paper Mills to construct certain works to prevent the pollution of the river Colne, since which the present defendant had acquired the property. As he had promised to construct these necessary works, with the permission of the Bench the present proceedings were ultimately withdrawn.

The Governors of the Royal London Ophthalmic Hospital, Moorfields, held their annual meeting last week, the Treasurer, Mr. H. Sykes Thornton, presiding. The report for the past year, which was presented, stated that of 1340 in-patients received during the period, 955 required operations, a large number being for cataract. Out-patients to the

number of 18,960 were granted letters to be seen by the surgical staff, after due inquiry as to their occupation, means, etc. The Hospital now contains 100 beds, which at the present time are all occupied. During the year 1878 £1500 was received in legacies, but the certain income of the charity was stated to be only £1400 per annum, whilst the annual expenditure is close upon £5000. The report was unanimously adopted, and the proceedings closed with the usual vote of thanks to the chairman.

The recent agitation on the subject of private lunatic asylums may be presumed to be responsible for the return moved for by Mr. Stephen Cave in the House of Commons, showing the number of licensed houses in England and Wales for the care of lunatics, and the number of patients in them, on January 1, 1878. The information given shows that there are ninety-seven of such licensed houses, no less than thirty-seven of which are in the metropolitan district. The largest of these is Grove Hall, Bow, where there are 443 male patients; Camberwell House, Camberwell, stands next with 274 private patients (108 men and 166 women), and 88 pauper lunatics; Peckham House, Peckham, has 218 private patients (126 women and 62 men), and 58 paupers. In the thirty-seven metropolitan licensed houses there were altogether 1871 private patients (1064 men and 807 women), and 109 pauper patients. In the rest of England and Wales the total numbers in licensed houses were, private patients 1588 (774 men and 814 women), and 540 pauper lunatics.

The exceptional character of the two little wars in which this country is at the present moment engaged, may be gathered from the fact that the medical officers, both in Afghanistan and at the Cape of Good Hope, although reckoned as non-combatants, have in several instances been compelled to combine active fighting with their professional duties. Surgeon-Major Shepherd, according to the hurried accounts which have up to this time reached us, may be said to have sacrificed his life in endeavouring to attend to a wounded trooper stricken down in his attempt to escape. But for this effort to do his duty he might probably have got clear away, as he was reported to have been tolerably well mounted. Surgeon Reynolds, again, who was in charge of the temporary hospital at Rorke's Drift, is stated to have passed the long night with Lieutenants Chard and Bromhead, in alternate efforts to defend the hardly pressed position and to administer to the wants of the wounded garrison. And in Afghanistan, Surgeon Burroughs is returned as wounded in the recent attack made upon General Biddulph's rearguard. When peace is once more proclaimed, and honours are bestowed with no sparing hand upon the survivors of these two campaigns, it is to be hoped that the members of the Medical Department will not, as is too often the case, be forgotten, since in many instances they will be able to claim to have been actual combatants.

At a meeting of the Wolverhampton Town Council, held on Monday last, it was decided to borrow £25,000 for the purpose of carrying out improvements in the district under the Artisans and Labourers' Dwellings Act.

ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD.

The seventh annual Report of the Local Government Board for 1877-78 has just been made public, with a supplement containing the report of the Medical Officer for the year 1877. The latter shows more especially the work done by the Medical Department in matters concerning the public health during the period to which it refers. The time of the inspectors attached to the Board has been greatly occupied on account of the increasing desire of local authorities to provide hospitals for the isolation of cases of infectious diseases, and the advice of these gentlemen has been much sought for on the subject; and also through the introduction or the improvement of by-laws for the settlement of particular questions involving health considerations, upon which the various local authorities have considered it expedient to solicit personal conferences with the inspectors. Many local inspections were undertaken which were called for by particular outbreaks of disease or by high general death-rates affording strong presumption of sanitary neglect. The number of these inspections was not, however, so numerous as in the preceding year—a circumstance for which Mr. Seaton offers a more or less satisfactory explanation. It is stated that Dr. Ballard continued during the year his valuable inquiry into the effluvium nuisances which arise in connexion with manufacturing and other branches of industry, and the degree to which such nuisances can be prevented. It appears that the present staff of inspectors is insufficient for the many and various important services asked for from them; and that a considerable increase in the number of inspectors is urgently demanded in the interests of the public health.

The information bearing on the subject of vaccination is, as usual, of the most complete kind; and a digest of the vaccination officers' returns (so far as received to January 31, 1877) with regard to children whose births were registered in 1875 shows the singular fact that, as in preceding years, the results have been much less complete in the metropolis than in the rest of the kingdom generally; the proportion of registered births which are not finally accounted for in the return being in the former 9·3 per cent., while in the latter it is but 3·8 per cent. This difference is greater than in any preceding year; of the registered births of the four years 1872-75, the proportion not finally accounted for in regard to vaccination in each year respectively has been in the metropolis 8·8, 8·7, 8·8, and 9·3 per cent., while in the rest of the kingdom it has been only 4·5, 4·2, 4·17, and 3·3 per cent. In 1875 the proportion of cases unaccounted for, after deduction of the postponed cases in the metropolis and in the rest of the kingdom, was 8·13 and 3·3 per cent. of births respectively.

Dr. Ballard contributes a very full report on an unusual prevalence of enteric fever at Ascot, extending over a period of four years and a half, the chief agent in the distribution of which he found to be the supply of milk from a local dairy; and the report of Mr. W. H. Power is given on the exceptionally fatal prevalence of diarrhœa in the registration sub-district of Winchester during the third quarter of the year 1876.

Mr. Netten Radcliffe communicates his observations on the probable influence on the health of the boys of the reformatory school-ship *Cornwall* by the outfall of the metropolitan sewage at Crossness and Barking, and his report does not appear to be unfavourable to the position chosen for the vessel. The same gentleman has supplied some valuable information on the progress of Levantine plague in 1877 and 1878, together with an account of an outbreak of the bubonic plague of India, which became prevalent in the mountainous district of Kumaun, on the southern slopes of the Himalayas, in November of 1876.

Mr. Seaton records that, as in 1876, he has nothing to report in 1877 on cholera as affecting Europe or countries in the basin of the Mediterranean; but, as it is clear from the events of the past year that this disease will have to be considered in this geographical relation in the Report for 1878, it is as well to note that there was a serious outbreak of it at Mecca in December, 1877, which subsequently extended to Medina and Jedda, parts of the Assyr country, Confuda, and early in 1878 to Hodeida. A copy of a memorandum is printed in the Report, which was drawn up

in the Medical Department of the Board in consequence of inquiries from the Colonial Office for information as to the practice of quarantine in this country, with reference to quarantine ordinances proposed in some of the colonies.

In Appendix B of the Report under notice no less than 110 pages are devoted to recording investigations by Dr. Klein on infectious pneumo-enteritis in the pig. Dr. Thudichum also continues an account of the further researches made by him in chemical biology, in a series of fourteen papers, treating, amongst other things, of the chemistry of the brain, the bile, and the urine. The payment for these auxiliary scientific investigations is provided for by a special annual grant made to the Board by Parliament for such purposes; and it may be mentioned that, in addition to the scientific work undertaken by Dr. Klein and Dr. Thudichum, the Board in the spring of 1877 directed that a certain portion of this Parliamentary grant should be appropriated to an investigation to be undertaken by the Pathological Society of London into the nature, causes, and prevention of pyæmia, septicæmia, etc. This investigation has not yet been brought to a conclusion, but will no doubt be finished in time to be included in the next annual Report published.

TOTTENHAM SANITARY ASSOCIATION.

The fifth annual report of the Tottenham Sanitary Association, for the year 1878, has recently been issued. It will be remembered that the object of this Association is to watch over the sanitary condition of the parish, and to diffuse sound information on all matters connected therewith. The total number of deaths in Tottenham during the year 1878 is stated to have been 590, as compared with 494 in 1877, 514 in 1876, and a yearly average of 475 in 1871-73, three years during which Tottenham was alleged to be suffering from the effects of sanitary neglect. The number of deaths from the seven principal zymotic diseases during 1878 was 101, as compared with 68 during 1877, 57 during 1876, and a yearly average of 114 during 1871-73. The most unsatisfactory feature in the records for 1878 is the comparatively large number of deaths from scarlet fever (21), the increase in the number of deaths from diphtheria (9), the number of deaths from typhoid fever (9)—all occurring during the last six months of the year—and the large increase in the total number of deaths from zymotic diseases. It is pointed out in the report that, with proper means of enforcing isolation of patients, the serious loss of life which has occurred from scarlet fever in Tottenham might have been greatly reduced, and the preliminary step for securing isolation is a compulsory registration of all cases of infectious disease. This system of registration, which is now in force at Bolton, Huddersfield, and other towns, is, the report states, being watched with great interest by all sanitary reformers, in the hope that it may be found sufficiently beneficial to justify the introduction into Parliament of a general Act for the whole of the kingdom bearing on the subject.

THE MEDICAL ACTS AMENDMENT BILL.

The Lord President's Bill has caused a flutter of excitement in Ireland as well as in the other divisions of the United Kingdom. The King and Queen's College of Physicians, and the Royal College of Surgeons in Ireland, have this week sent deputations to London on the subject of the Bill; while the University of Dublin and the Irish Medical Association are also making representations to his Grace the Lord President. The King and Queen's College of Physicians note with satisfaction that some few of the many changes which the Bill has undergone since it passed the House of Lords and was read a first time in the House of Commons last year are more in accordance with the views which the College expressed at that time. The College regret, however, that the Bill makes no provision for the reform of the General Medical Council. They consider that the qualifying certificate of the Joint Examining Boards should not be registrable under any circumstances, and that reciprocity is desirable in regard to the registration of colonial and foreign practitioners. The College regret also to note that absolute uniformity in examination-rules is far from being provided for in Clause 15, to the provisions of Sub-clauses 2 and 4 in which they likewise take decided exception. In the opinion of the College, the General Medical Council should have no control over the application of the surplus funds under the conjoint schemes, as provided in Clause 19; unregistered persons practising for gain should be liable to the penalty named in Clause 24; the registration of midwives should not be dealt with in a Medical Bill; and the delegation of power by the General Medical Council allowed under Clause 27 is objectionable. In conclusion, the College, feeling the important interests involved, as well those of a public nature as those concerning their duties as a licensing body, and fearing that if the Bill be passed in its present form but little practical good would result, feel bound to use their influence to have the Bill modified in accordance with their views. The College are aware that, in the House of Commons, measures have been introduced, dealing with the amendment of the Medical Act, 1858. They therefore are most anxious that, before any measure becomes law, a Select Committee of both Houses of Parliament may be formed, and full evidence be taken on the various questions in dispute concerning medical education and examination.

SWINEY PRIZE.

At a meeting of the adjudicators of this prize, held at the Society of Arts, Lord Alfred Churchill in the chair, the Secretary read the following minute of the Joint Committee of the Society of Arts and the College of Physicians:—"The Joint Committee of the Society of Arts and the Royal College of Physicians recommend that the award of the Cup and Coin, in conformity with the provisions of the late Dr. Swiney, be made in favour of Norman Chevers, M.D., the author of a published work on jurisprudence, entitled 'A Manual of Medical Jurisprudence for India.'—Alfred S. Churchill, Chairman." It was thereupon moved by the Chairman, seconded by Mr. Andrew Cassels, and resolved—"That the prize, a silver goblet, value £100, containing gold coin to the same amount, be adjudged, and the same is hereby presented, to Norman Chevers, M.D., the author of a published work on jurisprudence, entitled 'A Manual of Medical Jurisprudence for India.'" A vote of thanks to the chairman was proposed by Dr. Henry Pitman, seconded by Mr. J. A. Youl, C.M.G., and carried unanimously. The cup has been executed by Messrs. Garrard, from a design made expressly for the Society by the late Daniel Maclise, R.A. The prize is presented, on every fifth anniversary of the death of Dr. Swiney, to the author of the best published work on jurisprudence.

AN UNSANITARY RURAL DISTRICT.

A very reasonable anticipation has been indulged in, that under the steadily increasing advantages of modern sanitary teaching, the time is not far distant when the vital statistics of urban populations will compare favourably with those of rural districts. We are induced to make the foregoing remark from a careful examination of the fifth annual report of the Medical Officer of Health to the Holsworthy Rural Sanitary Authority for the year 1878, Mr. Linnington Ash. He remarks that "Holsworthy parish maintains its reputation for being a conspicuously unhealthy parish as compared with some others in the Union,"—a statement which must occasion some surprise, when it is remembered that this is an elevated moorland district on the borders of Dartmoor, only

sparsely peopled. Yet Mr. Ash reports that all the seven principal zymotic diseases have existed in the district during the year, although deaths have been registered in only four of them, and it is mainly due to this group of diseases that the death-rate for 1878 is considerably above that for the previous year. The cause for this unsanitary condition of affairs is not far to seek, apparently, since Mr. Ash communicates the startling fact that the water-supply of the district is derived from wells, which generally throughout the Union are only shallow surface wells, not one sample of the waters of which could on examination be pronounced "to be pure, or first-class, in the accepted sense of that term as applied to potable waters,"—all were found to be more or less polluted with "previous sewage contamination"; and as a main drainage scheme for the town has been adopted by the Rural Sanitary Authority, and is now awaiting the sanction of the Local Government Board to be carried out forthwith, it is to be hoped that no unnecessary delay will be allowed in the commencement of a work which may do much to bring about a more healthy condition of this, at present, unsanitary district.

THE ROYAL COLLEGE OF SURGEONS.

As we go to press a meeting of the Council of the Royal College of Surgeons of England is being held, for the purpose, among other business, of considering a memorial from teachers of anatomy or of physiology in the medical schools of England, in reference to the mode of conducting the primary examinations for the membership and fellowship of the College; for the consideration of a report, etc., from the Committee of Reference to the medical authorities; and for the consideration of a motion by Sir James Paget, that the Council adopted the principle that candidates who have been rejected at any examination of the College must, on re-examination, pay at least such fee as will cover the expenses of the re-examination, and that it be referred to a committee to prepare draft by-laws for giving effect to this principle. At present we understand that the fees paid by some candidates before they succeed in passing do not nearly repay the College the expenses of their examiners. The consideration of the report from the Committee of Reference will, we imagine, be held over till the fate of the Medical Bill shall have been determined, as will also, we should think, Mr. Hancock's motion, the discussion of which is due, for the appointment of a Committee to consider and report to the Council on the necessary arrangements to be made for the institution of examinations in chemistry, materia medica, pharmacy, and midwifery, to be passed by the candidates (not already qualified in those subjects) for the diplomas of the College.

THE DEATH OF MR. OAKESHOTT.

On Friday, last week, S. G. Coleman, a carman, was tried, at the Central Criminal Court, on an indictment for the manslaughter of Mr. John Oakeshott, on the evening of the 25th ult. The circumstances of the very painful occurrence must be fresh in the memory of our readers, and need not be recounted here, except so far as to say that the deceased was knocked down and killed at the entrance of Northumberland-avenue by one of two vans which were considered by some of the eye-witnesses of the occurrence to have been racing. For the defence, at the trial, it was urged that the pace the vans were going at was not excessive; that there were police on duty at the place, and that had there been any reckless driving it would have been observed; that the roads were slippery, and there was a slight incline between Cockspur-street and Northumberland-avenue, preventing the defendant's attempt to pull up when he saw the deceased crossing the street; that the defendant was quite sober, and that there was no evidence to show that the occurrence was other than a very sad and deplorable accident. The jury returned a verdict of *Not guilty*, and the defendant was discharged, the Judge observing that "it was hardly sufficiently understood by drivers that the public streets did not belong exclusively to them, and that foot-passengers had just as much right in them as they." The accused carman may congratulate himself on having been tried by a very merciful jury, for, if we are not much mistaken, when the charge was taken at the police-court, it was stated in evidence that he had at the time of the "accident" laid the blame on the driver of the other van, for attempting to pass him or cut him out; and that sounds very like racing.

THE PLAGUE.

At the request of Prof. Marey, the Academy of Medicine has nominated a committee charged with the duty of drawing out, for the French physicians about to repair to Tzaritzin, a programme of the researches they should undertake. The committee consists of MM. Pasteur, Bouillaud, Fauvel, Bouley, Davaine, Jaccoud, Marey, and Rochard. The *Gazette Hebdomadaire* urges the Committee not to delay its procedures, as the epidemic is already on the decrease, although doubtless later on in the spring it will reappear. Russia, Germany, and Austria-Hungary, the *Gazette* observes, have already sent to the theatre of the disease epidemiologists of great experience, who have already acquired celebrity by their former works; but still, by the very reason of their anterior investigations, are fully persuaded, doubtless, that it is of great consequence to seek, as has been done to the present time, what have been the hygienic causes of the present epidemic, and what has been topographically its mode of propagation. In France the perilous honour of repairing to Tzaritzin and Vetlianka has been entrusted to one of the youngest *agrégés* of the school of Val-de-Grâce; and learned as he may be, and well up to all modern work, if elaborate researches are to be expected at his hands in pathological physiology, a detailed programme will be of great utility to him. Prof. Pasteur, being persuaded that the disease consists in a virulent agent which may be isolated, great care will be required in collecting, preserving, and expediting the blood of the plague-stricken. If these investigations cannot be conducted on the spot, how will it do to forward these specimens to the Paris laboratories? To expect at the hands of the envoy all the precise, delicate, and rigorous researches spoken of by Prof. Pasteur seems somewhat exacting; and it is to be hoped that the committee will, if they are adopted, indicate the means by which they are to be accomplished. It is to be hoped that all physicians repairing to Russia will not fail to resort to those procedures of purification and disinfection which the Listerian method has placed at the command of all.

A CASE OF MISTAKEN IDENTITY.

The Glasgow police have lately had an excellent opportunity of observing how much caution is necessary in the acceptance of statements regarding the identification of the dead. On a Tuesday morning in February the body of a murdered woman was found in St. Clair-street, and on the Thursday following it was identified as that of a Maggie Macfarlane, the identity being testified to by five or six different witnesses. Amongst these was Maggie's own grandfather, who "recognised her at once, and cried bitterly"; but, on his visiting a house where his granddaughter had frequently called, he was informed that she was in prison serving a short sentence. Confirmation of this statement having been sought for at the prison itself, the presence of the living Maggie Macfarlane showed the necessity for new efforts

towards establishing the identity of the body on which her name had temporarily been conferred.

PILOCARPIN AS A REMEDY FOR ALOPECIA.

Dr. G. Schmitz, of Cologne, has reported the cases of two bald men whom he treated in his ophthalmic practice with subcutaneous injections of hydrochlorate of pilocarpin to produce absorption of inflammatory residua within the eye. In both a secondary effect, consisting in the rapid growth of young downy hairs on the bald parts of the scalp, was observed. In the first case a man of sixty had in four months his whole head covered "partly with grey, and partly with black hairs" of considerable growth, and so as entirely to obliterate the previous baldness. Dr. Schmitz calls the attention of the profession to these facts, with a view to elicit from others whether they have made any similar observations.

THE PLAGUE COMMISSIONERS.

The *London Gazette* of Tuesday, the 11th inst., announces that Surgeon-Major Colvill and Dr. Joseph Frank Payne have been appointed by the Lord President of the Privy Council, British Medical Commissioners to institute an investigation in Russia connected with the recent outbreak of plague in that country.

PATHOLOGICAL SOCIETY.

We would remind our readers that the special discussion on "Lardaceous Disease: its Anatomical Seats and Pathological Relations," will be opened at the next meeting of the above Society on Tuesday, March 18.

MEDICAL PARLIAMENTARY AFFAIRS.

Medical Act Amendment Bill.—In the House of Lords, on Tuesday, March 11, this Bill was read a second time. The Marquis of Ripon said that, though the measure might be improved in Committee, he would not insist on objections at the present stage. He thought that there should be a distinct statutory limitation to the amount of fees leviable upon persons desirous of entering the medical profession. He hoped that the Committee to inquire into the composition of the Medical Council would be appointed as soon as possible, to consider the objects for which the Medical Council were appointed. The composition of the Council ought to be determined by the objects for which it exists, and not the objects by the constitution. The main object to be effected by this Bill would be the unification of method and system of qualification for admission to the Medical Register. Other medical reforms might follow upon the passing of this Bill. It would be undesirable to press them at present, and endanger the passing of this useful measure. The Duke of Richmond remarked upon the proposal for limitation of fees by saying that it would be subject to be dealt with in Committee. He hoped the Committee to inquire into the constitution of the Medical Council would be appointed this week, and that the reference would be sufficiently large to include all the points raised by the Marquis of Ripon. If from unforeseen circumstances the Bill should be shipwrecked, he should be very much disposed to conclude, with the noble Marquis, to give up the attempt to legislate for medical reform. The Bill was read a second time, and the Committee are to meet on Thursday, the 20th inst.

Rivers Conservancy.—On Friday, March 7, the Duke of Richmond and Gordon presented a Conservancy Bill. Having stated that legislation on this subject dated as far back as the reign of Henry III., and that the Statute of Sewers, passed in the reign of Henry VIII., as amended by other Acts, was still in operation for the conservancy of rivers, his Grace referred to the report of a Committee of their Lordships' House appointed in 1877 to show that the existing system of conservancy was very defective. Under the Bill, the first reading of which he now proposed, any ten or more landowners, or any sanitary authority or conservancy board in a district, would be able to apply to the Local Government Board for the establishment of a new Conservancy Board. The Local Government Board would hold an inquiry and hear any objections that might be urged against the proposal. It might then, if it so thought fit, issue a provisional order for the establishment of the conservancy board; but before doing so it might require an undertaking from the promoters that they would, if necessary, appear before Parliament to sustain the provisional order. One-third of the members of a conservancy board under the Bill would be life members, and the rest members elected by the sanitary authority. All of the former class of members and one-half of the latter must be landowners. The board would have power to tax the whole district, to grant exemptions from taxation where lands were injured, and to impose an improvement rate where lands were benefited by conservancy operations. Tenants would be entitled to deduct from their rent one-half of the rate paid by them to the conservancy board. Such were the main provisions of the Bill, and he believed they were well calculated to effect the object for which they were intended. The Bill would not apply to the river Thames. After a few words of approval by Lord Ripon, and of inquiry by the Duke of Somerset, the Bill was read a first time.

Lower Thames Valley Main Sewerage Board Bill.—In the House of Commons there was a long discussion on this Bill, the object of which is to dispose of the sewage of the district below Staines by means of a large sewage farm. Its rejection was moved by Mr. Isaac, who pointed out that it would injuriously affect the comfort and the property of inhabitants, who would have no *locus standi* before the Select Committee; and Sir W. Barttelot and Mr. Sclater-Booth supported the Bill, on the condition that it be referred to a Hybrid Committee, where all persons affected could be heard. The House rejected the Bill by 168 to 146.

Zymotic Disease in the Metropolitan District.—Dr. Playfair gave notice that on an early day he will call attention to the increase of zymotic disease in the metropolitan district, owing to the impurity of the water-supply, and will move a resolution.

VACCINATION (IRELAND) AMENDMENT BILL.

This measure, which has been introduced into Parliament by the Chief Secretary and the Attorney-General for Ireland, is intended to assimilate the Irish vaccination laws to some extent, at all events, to those of England. The most important provisions are those (1) whereby the age before attaining which children must be vaccinated is reduced from six to three months—Clause 3; (2) whereby the certificate of successful vaccination is to be transmitted to the registrar of the district within which the birth of the child was registered, and not, as heretofore, to the registrar of the district in which the operation was performed; (3) whereby the rate of payment for successful vaccinations is increased from one shilling to one shilling and sixpence.

The Bill is drafted on the lines of the measure proposed some two years ago by the Council of the Irish Medical Association (see *Medical Times and Gazette*, February 1877, page 176); but there are some important alterations and omissions in it, to which the Council take exception. Thus, no provision is made in the Government Bill for allowances of awards for successful vaccinations and for the appointment of inspectors, as in England. Both of these important matters were fully provided for by Clause 5 of the draft Bill of the Irish Medical Association—a modification of Section 5 of the English Act. Commenting on the necessity for inspection, the Council of the Irish Medical Association remark that Dr. Edward C. Seaton, Medical Officer to the Local Government Board for England, in an article on the working of the Vaccination Laws (*British Medical Journal*, June 22, 1878, page 887), attributes the great improvement, which had taken place within the last eight or ten years in the quality of the vaccination done by the public vaccinators of England, to the systematic inspection of such vaccination. The Irish Medical Association believe that the importance of these provisions—allowances of awards and institution of inspection—cannot be over-estimated, and that their insertion in the Bill is urgently needed.

Both the King and Queen's College of Physicians and the Irish Medical Association object to the fee of one shilling and sixpence for successful vaccinations, believing that the adoption of a uniform fee of two shillings and sixpence per case would prove more satisfactory.

Clause 7, which provides for the payment of a fee by a re-vaccinated person, who, failing to report himself, is not inspected on the eighth day, meets with decided opposition on the part of the College and the Association. The clause appears to be calculated to deter persons from re-vaccination, and it ought, we think, to be altogether omitted.

In Clause 11 a fee "not exceeding £1 1s." is provided for attendance of a public vaccinator at vaccination prosecutions. The Irish Medical Association propose that the clause should read "not less than £1 1s., and not exceeding £2 2s." This seems reasonable, for, as the Association point out, if the clause be not altered to the foregoing effect, a medical officer attending a prosecution may receive a merely nominal fee.

Under Section 258 of the "Public Health (Ireland) Act, 1878," the Irish Local Government Board have fixed by their Circular of October, 1878, the above rate of remuneration for each case to medical officers of health for attending at sanitary prosecutions; and by the most recent rules of the Attorney-General for Ireland, regulating fees to be paid to medical witnesses for attendance and evidence at sessions, in Crown cases a fee of £1 1s. is allowed if the medical witness reside in the sessions town, and be not detained in court more than three hours. If detained longer than three hours he is entitled to £2 2s. a day, and any medical witness who does not reside in the town in which the sessions are held is entitled to £2 2s. a day besides his expenses.

The Government Bill defines "public vaccinator" as follows:—"The words public vaccinator shall mean, in Ireland, the dispensary medical officer, or any other person authorised to act as such by the Local Government Board for Ireland" (Clause 11).

In the Bill of the Irish Medical Association the term "public vaccinator" is used as in the English Act, instead of "dispensary medical officer"—the term used in this Bill, which does not include the public vaccinators of the Vaccine Department of the Irish Local Government Board. Unless the term "public vaccinator" be adopted, there is no provision to compel children vaccinated at that institution to be brought back on the eighth day for inspection of the result. A very large number of children are vaccinated at that institution.

We trust that the Government may see their way to adopt the suggestions thus thrown out, so as to render the proposed measure a really useful and a complete enactment.

Royal College of Surgeons in Ireland.—At a meeting of the Council of this body, held on Thursday, March 6, Dr. William Frazer was elected an Examiner for the Licence of the College, in the room of Dr. John Barker, recently deceased. Dr. Fraser is a Fellow of the College, was late the Lecturer on Materia Medica and Therapeutics in the Carmichael School, and is author of works on "The Elements of Materia Medica," and "The Treatment of Skin Diseases."

St. Mary's Hospital.—The *conversazione* in connexion with the St. Mary's Hospital Medical Society was held on Thursday, the 6th inst., in the board-room and library, with more than usual success. The visitors numbered about 200, and were received by the President of the Society, Mr. Herbert W. Page, F.R.C.S. Several glees and quartetts were well rendered by the Hospital Musical Society during the evening. A principal feature was a large contribution of telegraphic and general electric apparatus kindly lent by Charles Spagnoletti, Esq., illustrative of the block system, and also the tell-tale clock of the Burnly Sussex Asylum. A fine collection of photographs, the property of J. O. Griffits, Esq., Q.C., were kindly lent for exhibition, and also several ophthalmoscopic drawings by Dr. Hughlings-Jackson. Recent pathological specimens from the Hospital, and numerous microscopical sections, were shown by members of the staff and students of the school. Messrs. Arnold and Co., Messrs. Krohne and Sesemann, and Messrs. Lambert and Co. displayed some novelties in surgical and optical instruments.

MR. LE NEVE FOSTER, M.A.

The Society of Arts has just sustained a severe and sudden loss by the death of its well-known and greatly respected Secretary, Mr. Peter Le Neve Foster. Since Christmas last Mr. Foster had been suffering rather severely from gout, but it was hoped that the disease had left him, and he was recently enabled to resume his duties at the Society. On Thursday last, however, immediately on his return home to his own house at Wandsworth, he was seized with a sudden attack of heart disease, and some of his family coming into the room, where he had been sitting by himself for a few minutes reading the newspaper, found that he had fallen back from his chair, dead. So little expected was the illness that he had finished his ordinary day's work at his office, and had even walked up from the railway-station to his own house. Mr. Foster was born August 17, 1809, and was the son of Mr. Peter Le Neve Foster, of Lenwade, Norfolk. He was educated under Dr. Valpy, at the Norwich Grammar School, from whence he went up to Trinity Hall, Cambridge. After having taken his degree as thirty-eighth Wrangler in the Mathematical Tripos of 1830, he was elected Fellow of his College. He was called to the bar at the Middle Temple in 1836, and practised as a conveyancer till he became Secretary to the Society of Arts in 1853.

Mr. Foster was intimately associated with all the earlier Great Exhibitions. He was appointed to carry into effect the provisions of the Act for the protection of inventions in the Exhibition of 1851, and was also named treasurer for payment of all executive expenses in the original commission. During his term of office the Society of Arts has flourished as it never previously did, and, owing in no small degree to his exertions, it has quadrupled its number of members, and increased its resources in a still greater proportion. Much of its work was originated by the late secretary, and all of it was carried out by him. Even the regular working of such a society involves no small amount of labour and responsibility; but, besides this, the Society has been instrumental in promoting a great many public objects, and in all of these it was necessarily upon the secretary that the burden of the work always fell. From his boyhood upwards Mr. Foster took a keen and enlightened interest in many branches of science. He was one of the first to take up, and practise as a scientific amateur, the art of photography, and on this subject he has written a good deal in the pages of the photographic and other periodicals. He was one of the founders of the Photographic Society, and was on its Council for many years. He was President of the Quekett Microscopical Club for a year, and also served for some time on the Council of the British Association, the meetings of which he has attended regularly for the past twenty years. For many years he acted as secretary of the Mechanical Section of the Association. He read several papers before the Society of Arts, and was, of course, a constant contributor to its *Journal*, the whole series of which, from the middle of the first volume, was published under his direction. Mr. Foster leaves behind him a very numerous body of friends, to all of whom his genial and kindly character had endeared him. There must be literally some thousands of persons who have profited by the ready advice and generous help which was at the service of all applicants, known or unknown, who came to the office in the Adelphi. On the occasion of his completion of twenty-five years' service as secretary, a strong committee was formed to present Mr. Foster with a testimonial. The list for this was just about to be closed, the amount subscribed being over £1200. Under present circumstances it is probable that a fresh effort will be made to increase this amount, so that a fitting memorial may be presented to Mrs. Foster.

The Swiney Prize.—We are glad to be able to record that the joint committee of the Royal College of Physicians and the Society of Arts have, in conformity with the trust in the will of the late Dr. Swiney, awarded the Swiney prize to Dr. Norman Chevers, for his work, "A Manual of Medical Jurisprudence for India." The award is a just recognition of labours of European reputation and value.

FROM ABROAD.

The Metric System.

In the course of a lecture delivered before the New York Academy of Sciences (*New York Med. Record*, January 18), Dr. Seguin, demonstrating that the metric system should be taught more through the senses than the mind, shows some of the advantages which physicians would derive from the use of this quantitative language in practice and in recording observations.

"Foremost in human interest is the *uniformity of weights* in prescriptions, which would prevent the grave or fatal results attending the composition abroad of medicines prescribed here; and the *uniformity of measures*, which would give the possibility of writing observations uniform—that is to say, comparable at sight—with those of other nations. Then comes the possibility of materially accounting for the vital functions entrusted to the physician, in health at first, during their waste in disease, and in the course of their recuperation under treatment; and to make these individual records serve as mathematical elements of true medical statistics. These records and the following ones could be made much more valuable by being made on *metric paper*—a paper water-lined one way with the millimetre, the centimetre, and the decimetre lines, and the other way with decimetric and centimetric water-lines only. I will name, among the applications of this paper to the precision of our art, the tracing of the curves of the diurnal and pathological variations of the temperature, pulse, and respiration, the figures furnished by the hæmatometer, spirometer, dynamometer, various urinoscopes, etc.; the graphics of the sphygmograph, the myograph, and of other self-graphing instruments; the drawings or photographs of microscopic specimens; and other perishable or evanescent data, which lose part of their interest if their proportions have not been taken on an invariable scale. I cannot omit the case of the metric paper bands, on which, in important cases, must be telegraphed from the bedside to the doctor's desk the sudden break in the course of the vital functions which foretells a crisis avertible only by telegraphic swiftness. Now that instruments of medical precision are invented as fast as the advancing nicety in diagnosis demands them, nothing is more necessary than a means of concentrating their data on the uniform and all but uniformly accepted plans of the metric system, of the metric scales, and the metric paper. The great founders of the first societies of medical observation longed in vain for such means of record of their admirable observations as are now within the grasp of the whole profession.

"Let us, therefore, follow Europe in the use of the metric system; but let us show European physicians the use of the 'metric plan' in medical observation, beating them on their own ground, literally with a piece of paper. Our mind has come to that, but not our routine and automatism. Most of our medical schools and hospital clinics teach by the old weights and measures; few physicians prescribe in the metric language; and those of the druggists who know better, smile and 'put up' according to direction. The best surgeons import their instruments for no other superiority over our home manufactures than their metric scale. The Massachusetts, Pennsylvanian, and New York State medical schools recommend the use of the metric system; and the United States Medical Marine Service makes it official and obligatory, the Secretary of the Navy sarcastically remarking, in his last report, that the change has caused no evil results."

Chronic Trigeminal Neuralgia.

Dr. Seguin terminates a paper upon this subject, read before the New York Neurological Society (*New York Medical Record*, January 4), with the following conclusions:—"1. That there is a possibility of relief in most severe epileptiform trigeminal neuralgia. The usually received opinion is, that in such cases recourse must be had to operation upon deep branches of the nerve, excision of Meckel's ganglion, etc., and to the systematic use of morphia, to render life endurable. I am disposed to urge a sufferer to make a trial of medicinal treatment. 2. The advantage of using medicines systematically. Not only should the doses of any one remedy be administered regularly and in progressively increasing doses, but several remedies may be used in succession, so as to profoundly affect the system. Of the medicines applicable to the treatment of neuralgia the following are those which I can recommend most highly:—Aconitia, arsenic, iodide of potassium, gelseminum, belladonna, quinia, morphia, galvanism, the actual cautery, Thompson's solution of phosphorus. 3. In the treatment of chronic neuralgia and of many neuroses it is necessary to obtain the physiological effects of the drug employed in order to do good. This principle of heroic medication is one which insures success in seemingly desperate cases, and its execution requires the greatest watchfulness on the part of the physician, and intelligence and faithfulness on the part of the patient and his attendants. Many unpleasant consequences of such treatment may be avoided if we at first give very small doses and make a very progressive increase." As most of the good effects in Dr. Seguin's cases were produced by the use of Duquesnel's aconitia, he quotes the opinion of a committee of the New York Therapeutical Society concerning it. While not agreeing with Prof. Gubler that it never fails, the committee is of opinion that Duquesnel's aconitia is one of the most powerful and best agents for relieving and curing trigeminal neuralgia. It also calls attention to the enormous variations observed in the susceptibilities of individuals to the action of this drug. Thus, while one patient was severely affected by $\frac{1}{25}$ gr., another tolerated with no special symptoms $\frac{1}{4}$ gr. every three hours. On the average distinct physiological and therapeutical effects were obtained by $\frac{1}{100}$ gr. three times a day.

REVIEWS.

Medicinal Plants: being Descriptions with Original Figures of the Principal Plants employed in Medicine, and an Account of their Properties and Uses. By Robert Bentley, F.L.S., Professor of Botany in King's College, London, Professor of Botany and Materia Medica to the Pharmaceutical Society of Great Britain, etc.; and Henry Trimen, Department of Botany, British Museum, late Lecturer on Botany at St. Mary's Hospital Medical School, London. London: J. and A. Churchill. Parts XXXII. to XXXVII.

It is now some time since we noticed the continued and regular issue of this valuable and beautiful work. We have already expressed our opinion that this is by far the most important book of the kind in our language, so that here, beyond complimenting all concerned on the fineness and excellence of the illustrations, we need only remark that the letterpress is in keeping with, and worthy of, the plates. A short note of some of the figures given in the parts now before us may be of use in giving our readers some idea of the scope of the work, which is very far from being confined to mere pharmacopœial drugs and their belongings. Thus in Part XXXII. we have a representation and description of the plant supposed to yield jaborandi, though it is by no means clear that the source of this is at all times the same; it is called Pilocarpus pennatifolius, whence the term pilocarpin given to the active principle of jaborandi. Next come Astragalus gummifer, the source of tragacanth; Copaifera Lansdorffii, the yielder of copaiba; Manihot utilissima, which yields cassava; Juglans cinerea, which yields the so-called butternut, a favourite purgative and slight rubefacient in the United States; Quercus alba, the bark of which is used in America as we use ordinary oak-bark, and Quercus tinctoria, or black oak, possessed of very similar properties; with, finally, a capital plate of the ginger plant, Zingiber officinale.

In Part XXXIII. we find plates of the beautiful cotton plant, Gossypium Barbadense; Citrus vulgaris, the bitter orange, the citron, or Citrus medica; Prunus serotina, which is perhaps better known in this country as Prunus Virginiana, the American wild cherry, whose bark has been strongly recommended by certain American authorities in irritative dyspepsia and in certain forms of heart disease; Citrullus Colocynthis, the source of the well-known colocynth, yielding, curiously enough, edible seeds; Dorema Ammoniacum, a little-known plant, which yields the gum resin known as Persian ammoniacum; and Statice Caroliniana, the marsh

rosemary, whose root is used as an astringent in the United States.

In Part XXXIV. there are also, as usual, seven plates with descriptive letterpress. These include the well-known Coffea Arabica, or coffee-berry tree; Taraxacum officinale, the equally well known dandelion plant, the properties of which are so very doubtful; the Ulmus campestris, or common elm, whose bark is sometimes, but nowadays rarely, used as a slight astringent; the Ulmus fulva, or slippery elm, whose bark, chiefly in the shape of infusion, is much used in America as a demulcent; Salix alba, the white willow, and formerly our main source of salicin (salicylic acid, which has now greatly taken its place, may be obtained from carbolic acid or oil of cloves); Allium sativum, or garlic, can hardly be considered a medicinal remedy in this country, though still used for various purposes abroad. Finally, we have a two-page illustration of the well-known sugar-cane.

Part XXXV. is introduced by a figure of the Hibiscus esculentus, the okra plant of the East and West Indies, the fresh immature capsules of which yield an abundant mucilage. This gives it valuable demulcent properties, applicable either externally or internally; it is moreover largely employed for thickening soups. Of the vine, the Vitis vinifera, next figured, we need say nothing; but the next, Dichopsis gutta, is less known to us, though its product, guttapercha, is familiar to all. The Menyanthes trifoliata, buck-bean or bog-bean, is now rarely employed; its leaves yield a slightly bitter tonic substance, whose use is mostly confined to domestic practice. The Salvia officinalis, or garden sage, is best known as a culinary herb, though in America "sage tea" is not yet despised. The Metroxylon sagu, or sago plant, need not be referred to beyond recalling that it is the so-called pith which yields the article of commerce. An excellent figure of the male fern, Aspidium filix mas, concludes the list of illustrations contained in this part.

Part XXXVI. opens with Fig. 105, the Rosa centifolia, of which we have many varieties, the moss-rose being apparently here figured. Fœniculum capillaceum, or sweet fennel, whose fruit yields a volatile oil, is not nowadays much used; the herb is better known in connexion with cookery. Less known to us is the Erigeron Canadense, or Canada henbane; it is officinal in America, but its properties are ill defined—a little, perhaps, of everything. Of the garden lettuce, Lactuca sativa, it may be said that it is much more esteemed as a salad than as a medicine. And something of the same kind may be affirmed of the next substance figured here—and beautifully figured too—namely, the Rheum rhaponticum, the source of English rhubarb; the roots are, however, used medicinally. The mulberry, Morus nigra, is also better known as the bearer of an excellent fruit than as the source of a medicinal agent.

In Part XXXVII. we have first the dog-rose with its hips (Rosa canina); then Æthusa cynapium, or fool's parsley, more dangerous than useful; the Humulus lupulus, or hop, whose tonic properties are best recognised in the form of pale ale; the Crocus sativus, or meadow saffron, now hardly used except as a condiment or tinting agent; Smilax officinalis, the source of sarsaparilla, the real properties of which who can tell? Smilax medica, which yields the Mexican variety of sarsaparilla, comes next; with, finally, the Lycopodium clavatum, or club moss, whose spores are sometimes used as a dusting powder or for coating pills.

Atlas of Histology. By E. Klein, M.D., F.R.S., Lecturer on Histology at St. Bartholomew's Hospital Medical School; and E. Noble Smith, L.R.C.P., M.R.C.S., late House-Surgeon to St. Mary's Hospital. Part I. London: Smith, Elder, and Co.

The work, of which the first instalment now lies before us, is one which promises to be not only a work of art, but one of exceeding usefulness. Dr. Klein is well known as one who has done more for the accurate study of physiological histology than anyone now among us. He has been the pioneer in, and the exponent of, the new methods which have done so much to increase our knowledge of natural structures; in his own department he is *facile princeps*. Of Dr. Noble Smith we know less, but the samples of his work now before us show that he can draw from the microscope most exquisitely; so that from such conjoint authorship we have much to hope and expect. It is perhaps in this direction—as showing what can be done—that the work, as it seems to us, is likely to prove most useful. It will constitute a sort of standard of excellence, up to which men may endeavour to work, to surpass if they can, but at all events indicating a point which they should eagerly and industriously try to reach.

As regards the work itself, the subjects treated will be dealt with in the following order:—First, the simple or elementary tissues, blood, epithelium and endothelium, the connective tissues, muscular tissue, with the nervous, vascular, and lymphatic systems; next, the compound tissues, as seen in the digestive, respiratory, urinary, and genital organs, the skin, and the special organs of sense, will be dealt with. Separately, the supra-renal capsules, the thyroid, and the coccygeal bodies will be treated. It is perhaps a pity that there is no estimate given by the publishers as to the number of parts which these various subjects are likely to occupy. Most men are unwilling to enter into an engagement, either in subscribing to a book or otherwise, when they do not see a definite term before them; and so it may be here.

Turning to the contents of this instalment of the work, we find that it consists of four plates, with the necessary explanatory letterpress, and some wood engravings. Of these plates, two are occupied with the illustrations of the solid constituents of blood, white and red corpuscles, and the various coloured derivatives from the latter. The other two plates are devoted to the representation of the various forms of epithelium—some of them most beautifully executed. Here it may be worth while to note, for the sake of workers, that nearly all the coloured figures are representations of specimens stained with logwood, the soft, mild colour yielded by which is so much more pleasant to the eye than is the glare of carmine. The figures, we repeat, need only to be seen to be appreciated; but we add—we think without offence—that the letterpress would bear improvement. The style is confused and involved, and sometimes the English might be very much better. This, however, is a matter which may easily, and ought to be carefully, mended in subsequent parts. After all, the plates are the main thing: of the novel views these plates are intended to enforce, perhaps the most important is the doctrine that both leucocytes and epithelial cells are constructed on a type not unlike the red blood-corpuscle—that is, consist of a contractile network, with an interstitial hyaline substance. The account of the beaker cells is also very interesting.

On the Surgery of the Face. By Francis Mason, F.R.C.S., Surgeon and Lecturer on Anatomy at St. Thomas's Hospital; Hon. Fellow of King's College, London, etc. With 100 Illustrations. J. and A. Churchill. Pp. 170.

Mr. Mason has republished in the form of a book the three Lettsomian Lectures delivered by him during the session 1877-78, at the Medical Society of London. The lectures stand, apparently, pretty much as they were spoken; and thus they constitute, as might be expected, two or three hours' easy reading. A large proportion of the 150 pages of which the work consists is taken up by 100 well-executed engravings, many of which are taken from photographs.

Mr. Mason touches, in a light and easy style, on all, or almost all, the deformities, diseases, and injuries which can be included under the subject of the Surgery of the Face, and indicates with greater or less exactness the appropriate treatment in every instance. This style of dealing with the subject was, no doubt, well calculated to make the lectures, *qua* lectures, interesting and attractive; but when the material is presented in the form of a book, one must confess to a slight feeling of disappointment that the author has not elaborated his descriptions somewhat more exhaustively. This disappointment might, we think, have been avoided if Mr. Mason had not given such a comprehensive title to his work. But in a treatise on "The Surgery of the Face" the reader may reasonably expect more than about nine pages of large type on the subjects of hair-lip and cleft palate, at least four of which are occupied by illustrations.

Mr. Mason dwells upon the effect of maternal impressions in producing deformities in the infant. The subject has been almost worried to death, but will, we expect, continue yet a long while to be a bone of contention for imaginative minds. The notion itself is so attractive, the chapter of

accidents and coincidences so remarkable, the female mind essentially so credulous and prone to jump at a conclusion, and may we not add, especially under certain interesting circumstances, that evidence in favour of the reality of maternal impressions is sure to be forthcoming in abundance, at least until the next generation of highly educated women occupy the position of the mothers in the community. We are reminded of the extraordinary occurrences which Edgar Allen Poe describes in such a realistic manner, that it is scarcely possible not to believe them, when we are told of certain "instances which appear to have characteristic significance": the mother who was frightened by a rat, or a monkey, and whose child had a rat-like or monkey-like hairy mole on the face or elsewhere; the one-eared infant whose mother had rashly taunted her similarly deformed sister by calling her "Old one-ear!" or the child, "the half of whose body, including the face, closely resembled a piece of charred wood," and whose mother, it appeared, "during pregnancy resided opposite the Covent-garden Theatre at the time of the fire, and attributed the condition of the child to the fright that the fire occasioned."

In conclusion we would refer especially to the end of the third lecture, which brings together a large amount of very useful information on the plastic surgery of the face that will well repay a careful perusal.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

March 8.

FACTORIES AND WORKSHOPS ACT—SALE OF FOOD AND DRUGS ACT—COCOA-HOUSES—SCURVY—HOSPITAL SATURDAY.

A VERY suggestive correspondence has recently been carried on between the Liverpool Trades Council and her Majesty's Chief Inspector of Factories and Workshops, concerning the practical working of the Factories and Workshops Act. The Council, as the representatives of those most vitally interested in the efficient administration of the sanitary clauses of the Act, drew attention to certain facts which, in their opinion, rendered it necessary that additional inspectors should be appointed; that lime-washing, painting, and ventilation should be insisted on; and that a careful register should be kept of the dates when such lime-washing, etc., was completed. The alleged facts, reported to have been collected by a special committee during the past two years, were to the effect that there were many workshops in Liverpool that had never been cleansed or lime-washed for twelve or fifteen years; that very few had any ventilation except what was obtainable by opening doors and windows; and, in general terms, that some of them were hardly fit to place beasts in. In his reply, the Chief Inspector pointed out that the Act would give no control, other than that now exercised by the local authority, over workshops in which men only were employed; and the Council, feeling that experience had proved that control by the local authority was inefficient to remedy the evils complained of, expressed the hope that the Act would be amended in the direction indicated by them.

In his report on the work done in the borough during 1878, under the Sale of Food and Drugs Act, 1875, the Borough Analyst (Dr. J. C. Brown) draws attention to the very inadequate fines imposed on those found guilty of adulterating milk and some other articles. He states that "the average amount of penalty was only 18s. 7¼d."; and goes on to remark: "It was pointed out last year, that while the average penalty in the borough of Liverpool was only 15s. 11d., the average penalty in the county of Lancaster was £2 17s. 4d.: the effect has been, that while the percentage of offences in the county fell to 22·5 in 1877-78 from 27·3 in 1876-77, the percentage of offences in the borough has risen to 38·9 in 1878 from 31·8 in 1877. In the cases of milk, the percentage of offences in the county fell from 32 to 21, while in the borough the percentage only fell from 31·2 to 27·1. This difference appears to be due to the small amount of the penalty inflicted in the borough—a penalty so small that it would pay a dishonest dealer to continue the practice of watering milk, even if he were detected and fined once in every three weeks." In contrast with the small effect produced hitherto on milk adulteration is that produced on the adulteration of other articles by the imposition of heavier penalties. Thus, at the end of his report Dr. Brown remarks that "the only articles formerly extensively adulterated whose sophistication has been effectually suppressed are tea, preserved peas, and sweetmeats. In these cases the fines were higher than the average, having varied from £1 to £5." The hope was expressed in the Town Council, on the report being read, that the magistrates would endeavour to make the Act operative by the imposition of really substantial penalties in future.

It is with great satisfaction that I record the continued success of a movement which was instituted in this town, and which is likely to exercise a wholesome effect on the health and social well-being of the working-classes. The British Workman Public-House Company—a company formed for the establishment of cocoa-houses as a counter-attraction to gin-palaces—has just held its fourth annual meeting, during which it was reported that thirty-three houses were now in operation; that two new and very important ones were in course of preparation; that a cocoa-cart had been established, and was doing a great business early in the morning among workers in coal; and that after appropriating an ample sum to a depreciation account, and carrying over a large amount to the next financial year, it was possible to declare a dividend of 10 per cent. free of income-tax.

Considering the immense number of sailors that disembark at Liverpool, the cases of scurvy that are received into our general hospitals must be admitted to be very few. As the disease is so easily prevented it is proper that carelessness to provide an adequate supply of lime-juice for the wants of crews should be punished; and the imposition of a penalty of £10 on the owner and 40s. on the master of the British ship *Arvonia*, by our stipendiary magistrate recently, for default in this respect, whereby six men were affected with scurvy, will perhaps have a wholesome effect on others who might be tempted to imperil the health of their crews for the sake of a trifling saving.

It has been wisely determined by the Committee to defer for some time the Hospital Saturday collection, until the distress among the working men consequent upon the recent extensive strikes shall have subsided.

SCOTLAND.

EDINBURGH, March.

LUNATICS AND IMBECILES.

AT the annual meeting of the managers of the Edinburgh Royal Asylum, held in the Council Chambers lately, Dr. Clouston, the Medical Superintendent, submitted his official report. It is gratifying to find in the names of those who were present at this meeting evidence that the management of the Morningside Asylum commands the attention of the best class of professional men in Edinburgh, for the institution is one of a national character, and unlimited both in its capability and exercise of usefulness.

To read about asylums is to read of increased outlay; and the history of Morningside for the past year is no exception to the rule, inasmuch as the Lord Provost of Edinburgh was called upon to announce that £24,000 has recently been spent in improving the accommodation for better-class patients, and that £24,000 more has been expended in the purchase and renovation of the beautiful Craig House Mansion for the treatment of patients of the highest ranks of society. Some idea of the importance of Morningside as an institution for the treatment of the middle class insane may be formed from the statement of the Lord Provost that at the end of the year it accommodated one-sixth of all the private patients in Scotland at a cost of less than £1 a week, and that during last year between one-fourth and one-fifth of all the new cases of this class sent to asylums had been treated in Morningside. Whatever profits are made by the Asylum go to improve the house, pay off the debt, and help the charity fund, the object of which is to increase the comfort and promote the recovery of poor but educated patients by providing for their treatment amongst more highly favoured and equally intelligent members of the community.

Dr. Clouston's report is characterised by great ability, and contains much of an instructive and suggestive nature. The increase in the number of rate-paid patients has, unfortunately, been much greater than Dr. Clouston had

anticipated, the number having risen from 460 in December, 1873, to 518 in December, 1878—a statement which commands attention. The cumulative character of modern insanity is a consideration which has attracted much notice, and which requires to be kept constantly in view. It is impossible not to share Dr. Clouston's dread that accommodation provided at very great expense for the treatment of presumably curable lunacy should almost at once, and before it has been really put to its proper use, be unavoidably appropriated to the storing of chronic and incurable cases. The grievance is not a local one; it repeats itself everywhere, and before very long the question must be solved, to what extent local authorities can provide for quiet and incurable cases; so that institutions equipped as curative hospitals may cease to have their functional activity impeded by their becoming choked with a residue of incurable cases, which could be equally well cared for elsewhere. Some parts of Dr. Clouston's report are more gratifying. He says:—"Out of our 365 admissions, 199 (or 55 per cent.) were sent here within the first month of their illness; year by year patients are sent at an earlier period of their disease. The proportion of cases sent here in the first month of the disease has risen from 32 per cent. in 1873 up to its present rate of 55 per cent.—the average of the previous five years having been 43 per cent." It is to be hoped that other superintendents of asylums are or will be able to make a similar statement to this advanced by Dr. Clouston. The number of registered insane has been much increased by the relatives and parochial guardians of chronic and incurable cases having recognised the great advance which has during recent years been made in the construction and management of asylums; and it is a source of gratification to see that persons to whom the insanity of their relatives is an appalling novelty are now in a position to estimate asylums at their real value, and have confidence in them to such an extent as leads them to give their insane relatives that opportunity of early treatment by which so large a proportion of the probability of recovery is determined.

The retrospect of Morningside cases during the past year shows that 14 per cent. have had their direct cause in excessive drinking, but Dr. Clouston cannot discover that the depression of trade has had much influence in the increase of insanity, unless it can be made to explain the fact that the cases labouring under depression of mind were never so large in absolute number or in proportion, inasmuch as they reach 32 per cent. of the whole. One case of desperately suicidal melancholia was induced by losses indirectly caused by the failure of the City of Glasgow Bank.

The long succession of improvements which has characterised Dr. Clouston's superintendentship of the Morningside Asylum has naturally resulted in a diminished mortality. The average death-rate among the men has fallen by 2·2 per cent. in the five years from 1874 to 1878, as compared with the ten years from 1865 to 1874. This is a saving of 22 per 1000 a year, being the entire mortality-rate of Edinburgh. There can be no doubt that this marked diminution of mortality reflects very great credit on the sanitary science and on the humanity of the managers. It would be more unreservedly gratifying if we could shut our eyes to all else that it suggests, but the accumulation of chronic and incurable lunatics is a costly luxury which communities cannot appreciate without special education, and we are doubtful whether all boards of guardians, and parochial boards and their constituents, will confine themselves to respectful admiration when they think of the success which has characterised the efforts of sanitary science and humanitarian management in this particular direction.

The Scottish National Institution for Imbecile Children held its eighteenth annual meeting in Glasgow on the 27th ult. Dr. Ireland, the medical superintendent, reported that he had at present under his care seventy-one male and forty-one female pupils, and that the discharges last year were twenty, and the deaths four. Sir Peter Coats, the chairman of the meeting, said that 400 children had been admitted to the benefits of the Institution since its beginning, and that great good must have resulted from its labours. Imbecile children had, he said, in some instances been rendered self-supporting; and at present "there were some of the latter class employed in the Institution as under-servants at wages of £5 a year." This question also requires consideration in many of its bearings. Has anyone considered fully what is implied by the culminating success of the education of imbeciles—the sliding of a human being so far beyond the borders of imbecility as to make him, under favourable conditions, a self-supporting worker? It has to be assumed that he will marry; that the woman whom he marries will bear some mental resemblance to himself; and that posterity will gain (in numbers) by this triumph of artificial education. Medical men know what that means. Born idiots are not, as a rule, long livers, but it is doubtful whether any reasonable computation could bring their cost to the parish and the State to less than £300 per head.

GENERAL CORRESPONDENCE.

"SATISFACTORY AT LAST."

LETTER FROM MR. E. L. HUSSEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the *Medical Times and Gazette* of the 8th inst., referring to what you call "the differences between the City Coroner and the authorities of the Radcliffe Infirmary," are some statements which need contradiction.

The "chief cause of these differences" was that one of the Surgeons (not the one you mention), after receiving the usual notice to attend an inquest, did not attend, and did not give any reason for being absent. I brought the subject immediately to the notice of the governing body by a letter to the President. The letter was referred by him to the chairman of the Committee of Management, and, as far as I have been able to learn, no notice was taken of the subject.

Afterwards, at another inquest, one of the other Surgeons, who failed to attend under a summons, was brought as a witness under a warrant. Upon complaint made in due course by a solicitor on his behalf, the warrant and the proceedings under it were submitted to the lawyers. Under their opinion, that the numerous legal formalities required had not all been properly observed, a written acknowledgment was immediately made by me that I was not legally justified in issuing the warrant. No "action-at-law" was commenced till after this—two months, in fact, after the warrant—and the "legal proceedings" were limited to issuing a writ and sending a copy to a solicitor for me.

It cannot be necessary to remind your readers of the general rule of justice, that when a man injures another he should bear the expense, or a reasonable part of it. This case offered no exception, and I readily agreed to the proposal made on behalf of the practitioner supposed to be injured, that I should pay something toward the charges of his solicitor.

I have no knowledge of any "disagreements between the Coroner and the medical profession." Whatever they may have been, they were confined to the two junior medical officers of the Infirmary, neither of whom had been a twelvemonth in office.

I am, &c., E. L. HUSSEY.

Oxford, March 10.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN FEBRUARY, 1879.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen as Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.	
				Saline.	Organic.	Before Boiling.	After Boiling.
Thames Water Companies.	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	22·10	0·061	0·183	0·000	0·007	14·3	4·6
West Middlesex...	22·00	0·047	0·180	0·000	0·009	13·2	4·6
Southwark and Vauxhall ...	21·70	0·038	0·150	0·000	0·008	13·2	3·3
Chelsea	22·30	0·062	0·135	0·000	0·007	13·7	3·7
Lambeth	21·70	0·087	0·185	0·000	0·004	13·2	3·3
Other Companies.							
Kent	30·90	0·002	0·380	0·000	0·008	18·8	6·5
New River ...	22·40	0·032	0·180	0·000	0·006	14·3	3·7
East London ...	26·00	0·062	0·180	0·000	0·007	16·5	4·6

Note.—The amount of oxygen required to oxidise the organic matters, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and, in the case of the metropolitan waters, the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 25.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

ON THE DIAGNOSIS AND TREATMENT OF RUPTURED BLADDER.

MR. CHRISTOPHER HEATH narrated a case from his own practice, in which rupture of the bladder had occurred forty hours before the patient came under his notice, and in which the lesion was diagnosed principally from the tense condition of the abdomen; from the fact that a catheter on entering the bladder drew clear urine, but on passing further gave exit to bloody urine, which ebbed and flowed as the patient breathed; and that warm water, injected through the catheter, was felt in the groins and abdomen by the patient. Under ether the abdomen was opened, and the opening in the bladder closed with a continuous catgut suture. A catheter was tied in, and gave exit to clear urine till the fifth day, when it became bloody, and symptoms of peritonitis developed, the patient dying just six days after the accident. At the post-mortem examination the lower part of bladder-wound was found open. Reference was made to Mr. Willett's case, in which a similar procedure was adopted with a fatal result; and four recorded cases of recovery after rupture of the bladder into the peritoneum were then discussed. They were—(1) Mr. Chaldecott's case, treated by catheterism only; (2) Dr. Walter's case, treated by abdominal section for the removal of the urine; (3) Dr. Thorp's case, treated by catheterism of the peritoneum and washing out; (4) Dr. Mason's case, treated by lateral lithotomy. Having regard to the great difficulty of closing the bladder with stitches, which had now been tried in two cases without success, the author recommended in future cases a trial of the catheterism and washing out of the peritoneum, as practised by Dr. Thorp, reserving lateral lithotomy for cases in which the rent in the bladder could not be reached with the catheter.

Mr. BRYANT thought that if the abdomen was to be opened in such cases it should be done early, though, theoretically, the operation was not to be recommended. The rupture of the bladder was usually situated posteriorly, and hence was not easily got at. In such cases they must look for some outlet for the extravasated urine and for its being constantly secreted. An opening in the peritoneum did the former, but not the latter. Hence he thought it better to open the bladder from the perineum, to wash out the bladder, and, by introducing a tube through the rent, to wash out the peritoneum also. This was not possible in every case, and he had only seen three such cases. It was, however, not necessary to try too long or too hard, especially when the bladder was contracted. He mentioned the case of a boy who had been impaled on an iron spike, which had afterwards moved forwards, injuring the bladder. Here he cut into the bladder through the perineum, and the patient did well. When the pelvis was ruptured as well as the bladder he thought the same principles prevailed. He would use the knife freely and cut down deeply as often as the urine was contained in a cavity in front of the bladder and behind the pelvis.

Mr. WILLETT did not consider Mr. Heath's case discouraging, nor should he, for his part, be inclined to abandon the practice. At first the patient did very well, and it was only the fresh extravasation of urine which did the mischief. In dealing with such accidents they ought to bear in mind the earlier experience as regards ovariotomy: and surely this operation was not more dangerous than dealing with an inflamed or ruptured ovarian cyst. They must, moreover, remember the extreme fatality of such cases when left alone. Only one doubtful case of recovery was recorded in about eighty. Then, too, catheterism would not remove the blood-clot, whilst clear urine can soon be drawn off after the accident. Mr. Bryant recommended opening the bladder by the perineum: he thought the use of the catheter quite enough. He also thought that abdominal section was quite justifiable, both in Mr. Heath's case and his own. In both cases it was the lowest suture—always the most difficult to make—which gave way, but he thought it was quite possible to close the wound satisfactorily. For his own part he would do the same operation in a similar case.

Sir JOSEPH FAYRER mentioned the case of a man who was impaled on a bamboo stump. The bladder was lacerated, but after long treatment the man recovered. When he saw the patient he was the subject of stone.

Mr. PAGE referred to the experience of his father and others in Carlisle. He mentioned two cases, one a farmer who was run over; there was undoubtedly rupture of the bladder. Opium, catheterism, and washing-out were employed. The man did well. In the other case there was rupture of the pelvis. Here the aspirator was used; a quantity of bloody fluid was drawn off. Some peritonitis was set up, but under similar treatment to the last the patient did well.

Mr. RIVINGTON referred to the case of a man who had been run over and had separation of the pubes. He lived six days. About the fifth day he seemed much better, and could retain his urine. The rent was found on the upper and posterior part of the bladder, and a coil of intestine was glued to it, but some urine had escaped into the cavity beneath. It was questionable whether it was a good plan to sew up such a wound; he rather inclined to Mr. Bryant's plan. Long ago Dr. Blundell had recommended passing a ligature round the opening.

Mr. HOLMES was quite surprised that Mr. Bryant should hold that the operation was not justifiable. He thought it was really encouraging, especially if had recourse to early. In Mr. Heath's and Mr. Willett's cases nothing was attempted until about thirty-six hours after the injury. The fatal issue in either case was due, not to the operation, but to the giving way of the suture. He did not hold with the plan of opening the bladder through the perineum: the fluid was not more likely to escape by this than by the rupture; and it must certainly injure the peritoneum, and do away with any attempts at union, to thrust a catheter through the opening in the bladder. It was far better to prevent any extravasation by sewing up the rent. Mr. Heath's case quite proved this. He mentioned the case of a powerful man who walked into St. George's Hospital on Monday morning, having been injured on Saturday night. He was drunk at the time, and soon after being injured he tried to pass water, but failed; the same on Sunday. He died, and a rent in his bladder was found freely open. The whole peritoneum was found filled with urinous fluid. If the bladder had been sewn up at the time of the injury he would have had a better chance. No doubt there were mechanical difficulties in the way of sewing up the wound, but these might be overcome.

Mr. MORRIS asked if there were any means of determining whether the rupture was intra- or extra-peritoneal, as the treatment would materially differ in the two cases. If the injury affected the peritoneum, he thought it ought to be opened; but if extra-peritoneal, perineal section would be best.

Mr. MARSH professed himself an advocate for the operation, and he avowed his surprise at Mr. Heath's conclusions. It was hardly possible to clear out the clots except by opening the peritoneum, and they might well take example by the procedure in ovariotomy. For his own part he did not think much of opening the abdominal cavity. It was no desperate resource, and the operation had as yet had no fair chance. For drainage he would try median lithotomy with the use of a tube.

The PRESIDENT thought that the comparison with ovariotomy did not hold good. After ovariotomy there was no chance of fresh mischief, but here there was.

Mr. HEATH, in reply, said he did not exclude cystotomy, but held that it was not enough alone, neither was it enough to pass a catheter; the peritoneum had to be reached one way or another, so as to enable it to be washed out. The only certain diagnostic in these cases was passing the catheter into the peritoneum and drawing off bloody fluid, whilst the urine in the bladder was clear. The injection of warm water, the impossibility of thus causing distension of the bladder and the feeling it in the groins, was also important. The giving way of the catgut sutures was important. He was anxious to get a general line of practice to guide men, however placed, so as not to delay operation too long; but no single surgeon could have performed the operation he did, nor, for the matter of that, could a single man very well cut into the bladder.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 28.

Dr. GREENHOW, President, in the Chair.

LAPAROTOMY IN A CASE OF ACUTE INTESTINAL OBSTRUCTION.

MR. THOMAS BRYANT read the notes of a case of acute intestinal obstruction in which laparotomy was performed, and a large impacted gall-stone removed from the ileum, death ensuing from peritonitis. This case was one of a lady, who had been in good health until the day in question, having no symptoms of disease, except indigestion from time to time. On August 8 she went to bed in health, and awoke at twelve o'clock with sickness and severe abdominal pains. She was thought to be suffering from a bilious attack, but the symptoms persisted. The attacks of pain became more and more frequent, and the vomit ultimately stercoraceous. During the exacerbations of pain she writhed in agony. The abdomen was everywhere tympanitic and tender, but the centre of distress seemed to be on the left of the umbilicus. The countenance was anxious, and pulse feeble; no external hernia. The diagnosis was that of acute intestinal obstruction, due to a band or twist, or internal hernia; but there was no history to confirm any particular view. It being evident that death must ensue without surgical interference, laparotomy was proposed. Operation:—A downward incision, four inches long, was made in the central line of abdomen, commencing at the umbilicus; blood-stained serum escaped, and the small intestines were ecchymosed. The coils of intestine were followed, and a hard ovoid body was found impacted, or rather grasped, by the intestine. The body, which proved to be a gall-stone (exhibited before the Society), was removed; the wound in the intestine stitched with carbolised catgut, and the bowel returned. The patient never rallied from the collapse, but sank in eight hours. At the post-mortem examination no extravasation from the wound in the intestine had taken place; on the contrary, it was well sealed with lymph. There was advanced peritonitis. The point of impaction was in the ileum, one foot above the ileo-cæcal valve; the gall-bladder was a thickened pouch, about the size of a walnut, and the duodenum was adherent to it, and their cavities continuous. The gall-stone removed weighed 238 grains, and measured one inch and seven-eighths in length, one inch and one-eighth in breadth, and three inches and a quarter in circumference. Mr. Bryant remarked that the gall-stone must have made its way into the duodenum by ulceration, without any symptoms more than could be attributed to indigestion. He commented on the advisability of not delaying operative interference in cases of recognised intestinal obstruction, and mentioned that probably success did not follow the operation in question because it was performed at too late a period; seventy-two hours of acute obstruction, together with mechanical injury from the passage of the calculus, giving rise to acute peritonitis, which rendered success almost impossible.

LUMBAR COLOTOMY.

MR. RICHARD BARWELL read the notes of two cases of lumbar colotomy. John D., aged thirty-nine, admitted into Charing-cross Hospital, under the care of Dr. Silver, November 8, 1878; had always enjoyed very good health until last harvest, when he had frequent pricking pains in lower part of the abdomen, accompanied by constipation, which culminated in complete obstruction, nothing having passed by the bowel for nine days. The cause of this obstruction was obscure, a hardened mass above the left groin being very possibly either impacted fæces, a tumour, or a thickened bowel. Turpentine stupes, enemata, followed by frequent doses of opium and belladonna, seemed to act beneficially for about ten days; then obstruction again set in, and the man rapidly became so ill that Mr. Barwell was called in consultation, and proposed immediate lumbar colotomy to relieve the inordinate distension of the bowel. At this time the man was much exhausted, and blue at the finger-tips from difficulty of breathing. The operation was therefore rapidly performed, the colon opened, and a very large quantity of semi-fluid lumpy fæces evacuated. Although very greatly relieved, exhaustion continued; the system made an attempt to rally, but failed, and he died the next day at 5 p.m., about twenty-six hours after the operation. Post-mortem: The stricture was caused by a ring-shaped cancerous mass, about an inch broad, and in the thickest part half an inch thick, situated at the upper extremity of the sigmoid flexure. This was so tight that when the bowel was removed, and filled with water, none ran through. At the place of operation no sign of a wound or any inflammation was to be seen from the abdominal aspect, the peritoneum having been untouched. Over a great part of the small intestine there was incipient peritonitis, chiefly evidenced by a slight stickiness of the surface. Case 2.—Leah C., aged thirty-two, came into Charing-cross Hospital, May 11, 1877, under the care of Mr. Barwell, suffering from almost complete obstruction of the bowels, which had been slowly coming on since a difficult confinement fifteen months before, and which had been variously treated as habitual constipation and as piles. On digital examination of the rectum, Mr. Barwell found the intestine almost occluded by a hard cancerous growth, through which a central opening barely admitted the tip of the finger. After a week of careful treatment, the obstruction became more and more complete, and the abdomen greatly distended; and after consultation with his colleagues, Mr. Barwell opened the colon on the left loin. Three large basinfuls of fæculent matter escaped. The woman was greatly relieved. A vulcanite plug was fitted at the end of a fortnight, and when she had learnt its use she went out of the hospital. All this time the cancer was invading more and more the pelvic viscera, and from reports brought by her husband it appeared that great bladder troubles, followed by complete incontinence of urine, set in. All the lower part of the body was an open sore, discharging largely, and she died exhausted three months after leaving the hospital—five months after the operation. Mr. Barwell remarked that these two cases were in many ways similar, but in the first such exhaustion had already set in that very little chance of effecting more than relief could be hoped for. In the second case nothing could be more marked than the relief afforded by the operation; had the stricture been caused by a remediable malady every chance of getting well was afforded by the operation. The obstruction was cured; the woman died of an incurable cancer. If physicians could be imbued with the same faith as Mr. Barwell has in the value of early operation, the surgeon would be earlier called upon to give relief. An obstinate obstruction tending to threaten life is, after failure of one or two remedies, much more safely dealt with by the knife than by delay.

CASE OF A RARE FORM OF INTESTINAL OBSTRUCTION DUE TO INVAGINATION OF SMALL INTESTINE IN THE WALLS OF THE RECTUM.

MR. EDWARD BELLAMY communicated notes of this case. "The patient was a pale, delicate-looking woman, aged thirty-four, of intemperate habits. She was admitted into the Charing-cross Hospital under my care on February 15, 1879, with all the symptoms of intestinal obstruction. I ascertained that she had passed nothing per anum for nine days prior to admission. She had an inguinal rupture on the left side, and had worn a truss, which was left off just prior to the present attack, and the hernial protrusion does not seem to have come down since. She had been subject to obstinate constipation, and on three occasions the retention of fæcal matter had given rise to very serious symptoms. These, however, have always been relieved by ordinary means. On her admission a hard swelling was to be felt in the left iliac fossa, in the region of the inguinal canal and sigmoid flexure. She had intense pain over the lower part of the abdomen, and her eructation smelt stercoraceous. I had her placed under the influence of an anæsthetic, and introduced my entire hand into the rectum, and found that I could not get my fingers past the upper part of the rectum, which seemed to be filled up by some protrusion into it, and which itself appeared to be constricted. I, however, determined to wait a while before operating, and to give the patient all chance of treatment prior to doing so. She, however, rapidly became worse, the vomit becoming absolutely stercoraceous. I therefore on the evening of the 19th proceeded as follows, strict antiseptic precautions being adopted:—I first made an incision down to the external ring, thinking that perhaps, from the history, there might be some implication in the canal. On passing my finger, however,

into it, I found that this was not the case, but I did find the sigmoid flexure greatly distended. I now enlarged my incision upwards and obliquely outwards, so far as to enable me to pass my entire hand within the abdominal cavity and feel for the constriction. Thinking it possible that the sigmoid flexure might have been constricted anteriorly by that fold of peritoneum extending from the posterior wall of the bladder and uterus, and mesenterically attached in front of the sacro-iliac synchondrosis (the posterior utero-vesical fold), I felt for it, and found it not only very much developed, but obscuring a knuckle of small intestine, which was obviously invaginated in the interior aspect of the first part of the rectum; and, in addition, there were what appeared to be (I did not see, I only felt) bands of organised lymph, and stretching across in the same place, and probably the result of some earlier inflammatory process in the locality. (The existence of these bands, and the hypertrophy of the peritoneal fold, will account for the non-reduction of the hernia per anum.) I again introduced my entire right hand into the rectum, and pushed the prolapsed mass upwards and toward my left hand, which was in the pelvic cavity, at the same time breaking down the adhesions, and gently drawing out the knuckle and small intestine from its invaginated position, and freeing it from the peritoneal fold. Very soon afterwards flatus was passed, and in a few hours a copious evacuation followed, of course affording immense relief. I need not detain the Society by detailing the consequent conduct of the case, beyond stating that she became very delirious on the fourth day, but the symptoms yielded to morphia and chloral. The wound was, of course, treated strictly in accordance with Lister's method, and she had absolutely no bad symptoms till Thursday, 26th, when she had some symptoms of peritonitis. In looking up the literature of the subject I am unable to find any case where gastrotomy has been performed for a similar condition, although Lockhart describes the form of hernia; but he states that he has never known operation necessary. It will be concluded, of course, that the cavity of the peritoneum was opened. This was unavoidable from the nature of the adhesions, and I made my examination from within its walls."

Mr. H. Marsh regretted the end of Mr. Bryant's case. The operation had been too long delayed. Other cases on record showed that, if the operation had been done earlier, it might have been more successful. Mr. Spencer Wells had met with two cases where the bowel had been wounded and stitched up in the course of an ovariotomy; both did well. In one case the bowel was all but divided transversely; it was united, bringing the peritoneal surfaces together, and the patient recovered. In another a portion had been snipped out of the rectum; here, too, the edges were brought together, and the wound did well. Another case had been recorded abroad, where a vessel had been introduced into the rectum; it gradually passed upwards to the transverse colon; the abdomen was opened, the foreign body removed, and the patient recovered. Billroth had also recorded an interesting case where a false anus had followed a femoral hernia, and obstruction had resulted. The bowel was united at a higher level, and the patient did well.

Mr. Maunder said there was plenty of material for discussion; yet, although the three sets of cases were connected with the abdominal cavity, they must be held distinct from a clinical point of view. Doubtless, as Mr. Bryant had suggested, many physicians and surgeons would not have advocated the treatment which he adopted, but might regard it as somewhat rash. Personally, he (Mr. Maunder) was opposed to abdominal section by reason of the rough handling and exposure, to which its contents were of necessity very obnoxious, except in rare instances. It was true that during the last ten years several cases of obstruction had been relieved in one way or other through the peritoneum, but we must take care lest we be over-sanguine. Neither did he think that an impacted gall-stone should be compared to an external hernia strangulated for seventy-two hours. In this latter delay would be most dangerous, but in the case of the gall-stone there was no evidence to show that serious pathological changes had taken place in the intestinal coats. Neither could he advocate the use of a catgut suture on the incised bowel. He feared it might yield too soon, supposing the patient to survive a few days, and give rise to extravasation of fæces. Mr. Barwell's cases were common instances of obstruction followed by lumbar colotomy, and required on further comment. He heartily congratulated Mr. Bellamy on the happy progress of his case.

Mr. Howse said it was necessary to distinguish between the condition where great distension existed above the seat of obstruction, and where the bowel was flaccid. In the latter condition he thought it was best to open in the median line; where there was distension this was dangerous. Hence he thought Mr. Bryant's operation was not a happy one. In his case it would have been best to open in the groin. Nothing was to be said against opening the intestine. This was often done in internal hernia. He did not think the catgut sutures quite reliable. As regards the cases recorded by Mr. Barwell, he hardly thought them justifiable. Where the disease was cancerous the operation only served to prolong the patient's misery. On the other hand, the plan was very valuable where there was a large effusion of lymph round the colon.

The President said that personally he should be very thankful to have his life prolonged for five months in comparative comfort by such an operation. As regarded the whole question, not much had been contributed that night, especially as regarded the diagnosis. The result seemed to be that each case must be treated on its own merits. He mentioned the case of a female who came under his care with symptoms of acute obstruction. He thought of an operation, but under the use of belladonna she did quite well. Here the patient was suffering from pelvic cellulitis, with an accumulation of pus round the bowel.

Mr. Bryant, in reply, said he had dealt with his case simply as one of acute intestinal obstruction. He could not understand Mr. Bellamy's case, especially as regarded the symptoms of obstruction and hernia into the rectum.

Mr. Barwell referred to the case of a gentleman, the subject of piles, who applied for relief; they were, however, quite recent, and he had declined to remove them. Formerly this patient had suffered from jaundice, and when under observation obstinate constipation came on. Mr. Barwell removed from the rectum a large biliary calculus; there was an enormous discharge of fæces, and the patient did quite well. Probably this had opened into the colon.

Dr. Silver said that one main point of interest in his case was with regard to the diagnosis. This clearly lay between impacted fæces and malignant disease. The history of the case was rather against the latter view, especially as regarded the man's age, his look, the history of the case, and finally the character of the small mass in the groin. The mode of death was also interesting; it seemed to be due, in great measure, to interference with the action of the diaphragm and heart, either directly or indirectly.

Mr. Bellamy said that in his case it seemed as if the wall of the rectum had yielded somewhat, and a knuckle of small intestine had protruded through at the weakened spot.

Case of Successful Tracheotomy performed in the Last Stage of Diphtheria.

Mr. Lawson read notes of the above case. The patient, a little girl, aged eight years, was attacked with diphtheria on May 15 of last year, and was under the care of Mr. Morton, of St. John's-wood. The throat symptoms were those of well-marked diphtheria. Some hoarseness of the voice commenced on the 18th, but the diphtheritic throat symptoms seemed to have decidedly improved, and the child appeared to have taken the turn for the better. On May 20 there was slight difficulty of breathing, and this gradually increased until the early morning of the 22nd, when Mr. Lawson was asked up to meet Mr. Morton and Dr. Dobell. The breathing was then loud and stridulous, her countenance dusky, and her face covered with perspiration; her finger-ends were livid, and there was a distinct pitting above the sternum. As it was evident the child was rapidly sinking, it was decided to open the trachea. This Mr. Lawson did by the high operation, opening the trachea above the thyroid gland. On making the incision into the trachea, a large piece of false membrane escaped by the wound. He introduced one of Durham's tracheotomy-tubes, using only the single outer tube. The patient was then returned to a bed, which had no curtains and was drawn into the room away from the walls. The temperature of the room was kept as nearly at 65° as possible, but never warmer. A bronchitis-kettle was placed on the fire away from the bed, so as to moisten the air generally, but not to

make it too hot or moist immediately around the patient. In the treatment afterwards, the tube was removed once, and sometimes twice, daily, as it was found that on each removal false membrane and thick secretion were blown through the wound, which would not escape by the tracheotomy-tube. The child progressed favourably. The tube was removed for good on the seventh day, and she ultimately completely recovered. Mr. Lawson stated that the points in the case to which he wished specially to refer were—1. The position of the tracheotomy. He said that an opening above the thyroid gland was more easily performed than below that body. The trachea in the upper region of the neck was more superficial, and the veins were smaller than lower down in the neck. The high operation was therefore the safer one for the patient. 2. By having only the one tube, there was a larger channel for the escape of the secretion, and it was more easily cleared. The danger of its becoming choked was therefore less. If it does get blocked, the removal of the tube will frequently allow viscid secretion to escape by the wound. In this patient the removal of the tube once or twice daily probably contributed materially to the successful results, as on each occasion during the first three days large masses of secretion escaped by the wound. There is no difficulty in replacing the tube if the wound be first opened by Trousseau's tracheotomy forceps. 3. The having no tent or covering to the bed, and no steam close to the patient, to heat and moisten the air immediately round the bed. Mr. Lawson said he had long thought that the tent-bed, with the pipe conveying steam close to the patient, a mistake; he therefore decided in this case to give the patient plenty of air, by having no curtains, and the bed away from the wall, and with the spout of the bronchitis-kettle away from the child. In conclusion, he stated that he thought it only right to add that the success of the operation was in a great measure due to the judicious care and constant supervision which Mr. Morton kept over the patient, assisted by the intelligent nursing which the father and nurse bestowed on the child.

Case of Successful Tracheotomy in the Last Stage of Diphtheria.

Mr. Pugin Thornton read particulars of the above case. "An outbreak of diphtheria occurred in St. John's-wood in the early part of September last. It was confined to a small radius, for, as far as can be gathered, only four houses were attacked. Each family was affected about the same time. This outbreak of diphtheria, for which no cause could be ascertained, followed the epidemic which gave so much anxiety during the summer months in the N.W. district, and concerning which Mr. Power has issued a most carefu lreport, A. S., the subject of this paper, is a boy of three years of age. He was one of a family of three, the other two children having died before he was tracheotomised; their ages being respectively four years and a quarter and one year. This child was first taken ill on September 16, the day after the eldest had died. At first he was taken with laryngeal symptoms, but these passing off, the tonsils were found to be covered with membrane. On the 27th (the eleventh day of his illness) his larynx again became affected, and from that day to October 1 his breathing progressively grew worse. It was at this date that I was asked to see the child, and on this day that I performed tracheotomy upon him. The youngest had died in the morning. At the time of the operation the boy was labouring under urgent dyspnœa, being extremely restless, with his face slightly livid. There was no albuminuria. For some days following the operation, pieces of membrane were coughed up through the mouth, or removed with forceps through the tracheal wound, and three weeks after, double strabismus set in, lasting for a fortnight. A further proof of the diphtheritic nature of the disease was, that I myself was seized on the fourth day from first seeing the case with a mild tonsillar form of the complaint, being kept indoors about ten days. I had sat up the whole of the first night and part of the two following nights with the child. The boy has since done well, and I think it may be called a successful case, although the progress of recovery has been very slow, for it is now five months, and the canula has still to be worn. During the day the tube is completely closed up with a cork, the child talking freely, and running about the house; but at night-time the cork has to be removed, for after he has been asleep for a short time an attack of suffocation comes on, which can only be relieved by removal of the plug. The treatment throughout the case has been iron and chlorate of potash, and for the membrane a lactic acid spray was used. The other two children died with laryngeal symptoms, showing the family to be one of the unfortunate instances of fatal family susceptibility. I know of another family of three small children who, during the summer epidemic in St. John's-wood, all died with, I believe, laryngeal symptoms. My remarks have, of necessity, been few, as no notes of the case have been kept. Had it not been that Mr. Lawson was bringing forward a similar case, I should not have published it. I trust, at the same time, that its publication with Mr. Lawson's may help to strengthen all of us in the conviction that tracheotomy in diphtheria is somewhat a more hopeful procedure than many consider it to be; at any rate, an operation which should be more frequently carried out than I believe it is. Undoubtedly here are instances of its successful performance in children who must have succumbed in a few hours if left unoperated upon."

Mr. Maunder said that it was most gratifying to have evidence of successful tracheotomy in two instances, because it must be the experience of most present that the majority of cases associated with false membrane perish. He believed Mr. Lawson had "hit the right nail on the head" when he said recovery resulted from the close attention of two competent and indefatigable assistants. If it were possible, no tube should be used in these cases, but the membrane should be picked out as fast as it appeared at the wound. Some years ago he had a pair of forceps made to maintain the tracheal wound open, and so obviate the use of a tube.

Dr. Coupland mentioned the case of a child aged five, who had been admitted with great dyspnœa. There were diphtheritic patches on the tonsils and albuminuria. The voice was nearly suppressed. Mr. Morris operated by the low operation. He used only one tube, and the child was treated quite in the open. This patient had done well.

Mr. Barwell said the success might be in part due to the plan of after-treatment adopted. He referred to a case under the care of Dr. Silver where he performed tracheotomy, but where the extent of the mischief as seen post-mortem rendered success almost hopeless.

Dr. Silver said that in the case of this child's sister the membrane only extended over the fauces, and nothing required to be done. Had this extended a little farther backwards, and the trachea been opened, it might have been said that the operation saved the child's life.

The President had had a large experience of these cases, but it was generally bad, and he had long thought that the want of success was partly due to the use of the bed-tent and steam. The experience of Glasgow and Edinburgh was good, whilst in London cases seemed generally to do badly.

Dr. Duckworth had often found the temperature in these tents as high as 70°. This could only promote weakness.

Mr. Marsh said the general opinion at the Children's Hospital since the time of Sir W. Jenner had been against steam, except the trachea became dry and the breathing stridulous. He had had eight or nine successful cases in about fifty.

Mr. G. Lawson said that in his case the temperature had been kept strictly at 65°.

Mr. Thornton had opened the trachea low down. He had found Mr. Baker's tubes very successful.

Professor Köhler.—We are sorry to announce the death of Dr. Hermann Köhler, Professor of Pharmacology in the University of Halle, reference to whose experiments on the action of various drugs has been several times made in this journal. He died of heart disease on February 6. His most important work was his "Handbook of Physiological Therapeutics and Materia Medica," published at Göttingen in 1876.

Royal College of Surgeons.—The half-yearly preliminary examination in Arts, etc., for the diplomas of Fellow and Member of the College, which was commenced on Tuesday last, at Burlington House, by a staff from the College of Preceptors, was not brought to a close until this day (Friday), when 389 candidates had been examined, viz., 100 for the Fellowship, and 289 for the Membership. Owing to the large number of papers to be read, the result cannot, of course, be known for some weeks.

OBITUARY.

JOHN EVANS, M.B. Lond., M.R.C.S., L.S.A.

We regret to have to record the sudden death of Dr. Evans, of Church-street, Sunderland. The deceased gentleman had been unwell for some days, but was not incapacitated from performing his duties, and last week attended the Durham Assizes to give evidence in a case for personal damages brought against the North-Eastern Railway Company. On Sunday week he left his bedroom at half-past seven in the morning, and proceeded to his consulting-room to attend to his practice. About an hour afterwards a servant entering the room found the doctor lying on the floor, and quite motionless. Dr. Abrath was sent for, and on his arrival pronounced life to be quite extinct, death having resulted from heart disease. Dr. Evans was fifty-nine years of age, and was well known in the district as a practical accoucheur. For about thirty-five years he had also held the appointment of District Medical Officer for Sunderland Parish.

BENJAMIN F. McDOWELL, M.B. Dub., F.R.C.S.I.

This well-known member of the profession died at his residence, in York-street, Dublin, on Saturday, February 8, at the comparatively early age of thirty-eight years. Dr. McDowell had been in failing health for some months, and it was known that the fatal issue of his illness could only be a matter of time. During his short professional career, Dr. McDowell had worked his way steadily onwards, and before his last illness had been rewarded by the attainment of a valuable practice. He was a man of indomitable industry and perseverance, and the success he had attained had been well earned. He leaves a widow and four children. Dr. McDowell became a Licentiate of the Royal College of Surgeons in Ireland in 1864, and proceeded to the Fellowship in 1872. He was at the time of his death, and had been for some years previously, a member of Council of the College. He was also Surgeon and Lecturer on Clinical Surgery at Mercer's Hospital, Senior Surgeon to the Westmoreland Lock Hospital, Honorary Surgeon to the Dublin Sailors' Home, and Lecturer on Materia Medica and Therapeutics in the Ledwich School of Medicine and Surgery. Among his contributions to medical literature we may mention his papers on "Locomotor Ataxy of Syphilitic Origin, and its Treatment" (*Medical Press and Circular*, 1868), "Lupoid Ulcer" (*ibid.*, 1869), and his "Observations on Laryngitis and Tracheotomy" (*Proceedings of the Surgical Society of Ireland* for 1870 and 1872).

The Hot Bath as a Restorative.—Under this title the *Philadelphia Med. Times* (February 15) calls attention to Dr. Charles Hunter's "new treatment of shock," (noticed in our number for March 1, page 246), by means of the hot bath. After adverting to the uselessness of the treatment by the ordinary stimuli, the writer observes:—"Enough has been said to illustrate the principle that *whenever the bodily temperature falls below the normal, pyretic treatment is demanded.* The vigour of this treatment should always be in direct proportion to the suddenness and extent of the fall of temperature. In regard to the methods of applying heat, it must first be understood that wrapping in blankets, etc., is only useful as a means of preventing cooling of the body, and that when the animal temperature has already fallen they will not suffice. The same may be said of air heated to temperatures which can be readily obtained, or can be borne by the attendants. Radiated air is somewhat better, and often the use of a good, brisk, open fire is of service. The *hot bath*, however, is the only pyretic remedy which can be relied on when a Turkish bath is not at hand. It should be always a full bath, in as warm a room as can be procured, and should be at a temperature of about 103° Fahr. when the patient is put into it. The duration of the bath must vary with the circumstances of the case. Frequently ten minutes will be long enough, but if the mouth-temperature do not rise to the normal, a much longer duration may be advised. During the bath the heat of the water should steadily be increased as fast as it can be borne, if the patient be conscious. It will be found that 110° is about the limit of endurance for most persons, and in unconscious subjects this limit should not be passed."

MEDICAL NEWS.

Apothecaries' Hall, London.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 6:—

Alexander, Samuel, Spring-grove, Isleworth.
Harvey, Alfred, Wheeley's-road, Birmingham.
Hodgson, George Goodfellow, Royal Infirmary, Liverpool.
Prichard, James Edward, Clifton, Bristol.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Branthwaite, Robert Welsh, Charing-cross Hospital.
Rice, Richard, Charing-cross Hospital.
Studer, Benjamin, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

Cripps, Edward Charles, M.R.C.S. Eng. and L.R.C.P. Lond.—Assistant Medical Officer to the Central London Sick Asylum, Highgate, N., *vice* W. E. Hacon, resigned.

Gadsby, J. T., M.B. and B.S. Lond., M.R.C.S. Eng.—House-Surgeon to the Richmond Hospital, Surrey, *vice* Ward, resigned.

Pye, Walter, F.R.C.S.—Assistant-Surgeon to the Victoria Hospital for Children, Queen's-road, Chelsea.

Vacher, F., F.R.C.S. Ed.—Public Analyst for the Borough of Birkenhead.

NAVAL, MILITARY, &c., APPOINTMENTS.

Admiralty.—Staff-Surgeon Henry Nanton Murray Sedgwick has been promoted to the rank of Fleet Surgeon in her Majesty's Fleet, with seniority of February 17.

BIRTHS.

Bond.—On March 4, at 17, Delahay-street, Westminster, the wife of T. Bond, F.R.C.S., of a son.

Bushell.—On February 8, at H.B.M.'s Legation, Peking, the wife of S. W. Bushell, M.D., of a daughter.

Fraser.—On March 8, at Greenlaw-park, Milton Bridge, Midlothian, the wife of Henry Martyn Fraser, M.D., Deputy Surgeon-General, H.M.'s Service, of a son.

Parker.—On March 4, at Havering House, Gosforth, Cumberland, the wife of Charles A. Parker, M.D., of a daughter.

Shuttleworth.—On March 6, at 25, Hans-place, the wife of L. E. Kay-Shuttleworth, M.R.C.S., of a son.

Turtle.—On March 8, at Kirkmead, Woodford, Essex, the wife of Fredk. Turtle, M.D., of a daughter.

MARRIAGES.

Garden—Bryce.—On March 6, at Aberdeen, Robert John Garden, M.D., to Jane, third daughter of James Bryce, advocate.

Robertson—Pearson.—On February 1, at Rangoon, British Burmah, William Robertson, M.B., Surgeon-Major A.M.D., to Georgina Elizabeth, only daughter of John Pearson, Esq., South Wingfield, Derbyshire.

DEATHS.

Beevor, John, M.D., of Mansfield Woodhouse, Notts, at Bawtry, Yorks, on March 9.

Brims, James, M.D. Edin., at Mount Villa, Burnley, on March 9, aged 48.

Emmerson, Elizabeth, wife of Charles Emmerson, M.D., late of Sandwich, Kent, at Ventnor, Isle of Wight, on March 2, aged 58.

Fletcher, George Frederick, M.R.C.S.L., at 6, Brook-road, Stoke Newington, N., on March 7, in his 57th year.

Good, D'Oyly John, eldest son of John Good, M.R.C.S. Eng., at Dorchester, on March 6, aged 25.

Hughes, Thomas, M.D. Edin., formerly of St. Peter's College, Cambridge, at 34, Abingdon-villas, Kensington, on February 25, aged 75.

Jones, Elizabeth, wife of Thomas Jones, M.R.C.S. Eng., at 20, Clwyd-street, Ruthin, N. Wales, on February 14, aged 75.

Jones, Thomas, M.R.C.S. Eng., at 20, Clwyd-street, Ruthin, N. Wales, on March 6th, in his 80th year.

Jordison, Robert Lloyd, M.R.C.S. Eng., eldest son of R. B. Jordison, M.R.C.S. Eng., of South Ockenden, Essex, at The Cottage, Hornchurch, Essex, on March 10, aged 37.

Joubert, Leila, eldest child of C. H. Joubert, M.B., Bengal Army, at Calcutta, on February 3, aged 3.

Oakshott, John, M.R.C.S. Eng., of Highgate, instantaneously killed by being run over at Charing-cross, on February 26.

Ollard, William, M.R.C.S., at 8, York-row, Wisbech Saint Peter, on March 8, aged 79.

Ross, Charles, M.D., at Hermon-hill, Wanstead, on March 6, aged 71.

VACANCIES.

Cancer Hospital, London and Brompton.—Resident House-Surgeon and Registrar. Candidates must be unmarried, registered members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and thoroughly acquainted with the use of the microscope. Applications, with testimonials, to the Chairman of the Weekly Board, 167, Piccadilly, W., on or before March 22.

DORSET COUNTY HOSPITAL.—House-Surgeon. Candidates must be unmarried, and must possess a medical and surgical qualification from one or more of the British universities or colleges recognised under the Medical Act, and be duly registered. Testimonials as to moral character, general health, and professional ability, to the Chairman at the Hospital, Dorchester, on or before March 19.

GATESHEAD DISPENSARY.—Assistant-Surgeon, with double qualification. Apply to Mr. Joseph Jordon, 25, Close, Newcastle.

INFIRMARY FOR CONSUMPTION, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Every information may be obtained from the Secretary.

LEEDS GENERAL INFIRMARY.—House-Physician. Candidates must possess a medical degree in a British university, or be members or licentiates of a British College of Physicians. Testimonials to Dr. Heaton, the Infirmary, Leeds, on or before March 19.

ST. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer. Candidates must be legally qualified to practise medicine and surgery in Great Britain and Ireland. Copies of testimonials to W. M. Teulon, Esq., 18, Upper Woburn-place, W.C., on or before March 24.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bolton Union.—Mr. Charles Seagrave has resigned the office of Resident Assistant Medical Officer at the Workhouse; salary £150 per annum.

Kingsbridge Union.—Mr. F. J. Cornish has resigned the Third District; area 2286; population 1676; salary £34 per annum. Also the Fifth District; area 3568; population 804; salary £15 per annum. Also the Tenth District; area 7341; population 1737; salary £82 per annum. Also the Workhouse; salary £44 per annum.

APPOINTMENTS.

Downham Union.—William B. Hunter, M.D., C.M. Edin., to the Second District.

Tenterden Union.—Charles E. Baker, M.R.C.S. Eng., L.R.C.P. Edin., to the High Halden District.

THE STATUE OF CLAUDE BERNARD.—The subscription organised by the Société de Biologie for the erection of a statue of Claude Bernard has reached up to the present time about 25,000 frs.—*Gaz. Méd.*, March 8.

ETHER IN BLEPHAROSPASM.—In a lecture delivered by Prof. Dubrueil, of Montpellier (*Gaz. Méd.*, March 8), he mentioned a means of treatment which he had found of marked efficacy in two cases of bad blepharospasm. There also existed intense photophobia, the two conditions being produced by keratitis. After trying all the measures recommended for this affection, he only succeeded in combating it by means of douches of pulverised ether projected on to the eyelids.

BY the death of Mrs. Hannah Brown, the medical school of St. George's Hospital has lost a valued and most liberal benefactress. In memory of her husband, William Brown, Esq., F.R.C.S., she founded, in 1856, an exhibition of the annual value of £40, tenable for four years; and in 1872 another exhibition of £100, tenable for two years. These, which are known as the "William Brown Exhibition," are awarded by competition to students at the termination of their compulsory studies, and are of great value in assisting the holders to continue their medical education either in England or abroad.

DESTRUCTION OF LIFE BY WILD ANIMALS IN INDIA.—This seems to go on at a very regular rate from year to year; and notwithstanding the rewards offered by the Government for killing these animals, neither the number of persons or of cattle killed seems to diminish. In 1877 there were 19,698 persons killed by tigers, leopards, bears, hyænas, wolves, and poisonous snakes, and 19,273 in 1876, while in the same years 53,197 and 54,830 cattle were destroyed. On the other hand, 22,851 wild animals were killed in 1877, and 23,459 in 1876. During 1877 there were 127,295 snakes killed, and 192,371 in 1876. The cost of these procedures amounted to Rs. 103,017 in 1877, and to Rs. 124,374 in 1876. The number of persons killed in 1877 was 16,777, and 15,746 in 1876; so that the poisonous snakes are the most destructive of human life, while wild animals chiefly destroy cattle. Tigers in 1877 killed 16,137 cattle, and leopards killed 14,488, and wolves killed 11,934, snakes killing only 2945. These figures nearly correspond with those of 1876, except in regard to snakes, which killed 6468 cattle, or nearly double the number of 1877. The destruction of human life by snakes being so great, the Government of India suggests that rewards for killing them in towns and large villages may be given with much advantage by municipal bodies, with or without help from the local governments. Snakes haunt the roofs and purlieus of the dwellings of the people in towns and villages, and thence arises the great mortality from poisonous snakes. —*Indian Med. Gaz.*, February.

EXPENSIVE PAUPERS.—The following statements have been made public in consequence of an order from the Local Government Board to the Skipton Board of Guardians, requesting them to send a pauper child to the Roman Catholic Institution at Richmond-hill, Leeds. It is said that what makes the Guardians strongly opposed to the order is the fact that the mother of the child and her illegitimate family have cost the Skipton Union £525 4s. during the last twenty years, and that previous to her marriage with the man Rose, the Roman Catholic child's father (with whom she only lived a few weeks when he absconded), she was a Protestant. The woman herself has cost the Union £208, and her children, each by different fathers, as follows:—No. 1 child, £124 16s.; No. 2, £52; No. 3, £26; No. 4, the girl sent to Richmond-hill, £83 4s.; No. 5, £41 12s. On Saturday Mr. Curtis moved that an epitome of the case be drawn up and forwarded to Sir Mathew Wilson, M.P., their chairman, for him to call the attention of the House of Commons to the whole affair. He stated that he considered it a shame that, the woman and her family having cost the Union between £500 and £600, the ratepayers should be called upon to maintain one of her children at a boarding-school at Leeds. There was, he said, a feeling of indignation among the ratepayers.

CINCHONA CULTIVATION IN INDIA.—Dr. King's report for 1877-78 indicates that the cultivation of cinchona on the Government plantation is being extended. There are now 2242 acres of cinchona, and 706,600 red bark trees were planted out during the year, besides 8870 of an excellent hybrid variety. During the year there were harvested 341,060 lbs. of dry red bark, and 3165 of grey bark, making a total of 873,342 lbs. of dry bark since the plantation was begun. Of the year's crop 239,680 lbs. were used in the manufacture of the "cinchona febrifuge," of which 5162 lbs. were produced, or 2·1 per cent. of the quantity of bark used. This, with 3720 lbs. which remained in store, made 8882 lbs. available for issue and use. Of this, 3411 lbs. were made over to the Medical Stores Department, 2038 were sold to the public, 28 were given away as samples, and 3494 lbs. remained in store. The credits of the undertaking surpassed the debits by Rs. 11,531; but the reality of the profit depends on what the bark would fetch in the home markets. The saving of the Government by the use of the "febrifuge" in the hospitals and dispensaries in place of quinine is estimated at about three lakhs of rupees (£30,000) annually. This also depends upon the value of the bark and the price of quinine and other alkaloids; but there can be no question that a very material saving is made. The only doubt is, whether the system of local extraction of the alkaloids is the most economical; but it possesses the great advantages of being on the spot and under the control of Government, so that India is to a very great extent self-supporting and independent of European markets in the important matter of cinchona alkaloids. The enterprise is a great and unquestionable success, and the Government of Bengal and all its officers who have been concerned in the management of cinchona cultivation in Sikkim, are entitled to hearty congratulations.—*Indian Med. Gas.* February.

JABORANDI IN ALBUMINURIA AND PUERPERAL CONVULSIONS.—At the annual meeting of the Medical Society of the State of New York, Dr. Fordyce Barker read a paper "On the Use of Jaborandi and Pilocarpin in the Treatment of Albuminuria and Convulsions." He observed that the effects which are so nearly constant and uniform that are produced by this drug, and which are produced by no other medicine, naturally suggested its utility in diminishing œdema and eliminating urea in albuminuria. It may be relied on for producing in a very short time excessive salivation and profuse diaphoresis; and it has been assumed that in this way urea could be eliminated in large quantities in the sweat and saliva. But this is established neither by experiment nor clinical observation. When an agent is sure to produce the specific effect anticipated, one is tempted to rest satisfied with this action without carefully noting whether any real benefit accrues. In addition to the excessive salivation and diaphoresis there is often a hypersecretion of nasal and bronchial mucus. The pulse is always quickened, sometimes forty or fifty beats, and at the same time its force is weakened. The face is at first flushed, but when sweating commences it becomes pallid, showing that the sweating is not due to the excess of blood sent to the skin. It seems to

paralyse to a certain extent the vaso-motor system. It often produces headache, drowsiness, and haziness of vision. After the sweating, languor and debility persist for some hours. It does not increase the renal secretion. Dr. Barker does not regard the evidence of its beneficial action in the cases of albuminuria that have been published as at all conclusive; and he relates seven cases which he has seen in consultation, and in six of these he thinks that it did harm. He firmly believes that the utility of jaborandi in albuminuria is more than doubtful, and that after convulsions its depressing influence, as well as its peculiar action which prevents sleep and the needed repose of the nervous system, renders it in these cases an unsafe, and even really a dangerous, remedy.—*Boston Med. Journal*, February 20.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*** We have received the following intimation from the head-quarters of the Metropolitan Police in Scotland-yard:—

"March 10, 1879.—*Police Caution.*—The police authorities desire attention directed to a man who is in the habit of calling at the houses of medical gentlemen, etc., inquiring for some person who does not reside at the address, and during the temporary absence of the servant steals articles from the room where he is left, and decamps. Description:—Age about thirty; height five feet eleven inches; stout build; complexion, hair, and whiskers fair; chin clean shaved; dress, black coat, light colour trousers, high black hat. Carried a walking-stick; respectable appearance. Information should be given to the Director, Criminal Investigation Department, Great Scotland-yard, or at any metropolitan police-station."

Errata.—In "Observations on Plague," by Dr. Murray, *Medical Times and Gazette*, March 8:—Page 255, par. 1, line 6, *for* "Bala" *read* "Palu"; par. 2, line 18, *for* "Plancke's" *read* "Plank's"; par. 3, line 5, *after* "cholera" *add* "or typhus"; par. 3, line 11, *for* "and we must" *read* "We must"; par. 3, line 12, *for* "our own" *read* "our over-"; par. 13, line 2, *for* "cholera epidemic" *read* "cholera and typhus epidemic."

"*Two Blacks don't make a White.*"—"The bad air in the board-room" was recently a subject of discussion at a meeting of the Chelsea Vestry. The medical officer had, in a report, condemned as "decidedly unhealthy" the air of the board-room, and alterations were suggested to remedy the impurity, which, it was stated, would involve an expense of £36, and a motion was made for the adoption of the report. A vestryman, however, objected; "he looked around him, and saw gentlemen who had sat in the room for years and years, and their vigour and healthy appearance certainly showed that the bad air did not affect them." Whereupon the chairman remarked that "however healthy he might look he scarcely ever left the vestry without a headache." This evoked a rejoinder from another vestryman, who stated that "no complaint, he believed, had been made for twenty years. If the air of the board-room was so bad, what had the medical officer and the sanitary committee been about all this time? It was very well to talk, but he felt sure the learned judges on the bench would be glad if the air in their courts were as good." He characterised the suggested outlay as "a useless waste of public money." The motion was ultimately put, and lost on a division.

The Peabody Fund.—The trustees have, up to the present time, provided for the artisan and labouring class of London 5170 rooms, exclusive of bath-rooms, laundries, and washhouses. These rooms comprise 2348 separate dwellings, which are occupied by 9660 persons. The death-rate in the Peabody Buildings, for the three years commencing January 1, 1876, and ending December 31 last, was 20·76 per 1000, which is about 1·50 per 1000 below the average of all London for the same period.

A Collector.—Autograph letters of Hunter and Jenner can be purchased of Mr. F. Naylor, 4, Millman-street, Bedford-row, who guarantees their authenticity.

M.D.—What was called the Great Plague visited London in 1665; there was, however, an outbreak in 1636. John Duke of Montague, who died in 1749, was a Fellow of the College of Physicians. It was Dr. Addington who refused in the same year to consult with a licentiate. Consult Dr. Munk's Roll of the College of Physicians.

A Pressing Necessity.—The necessity of enlarging the Chelsea Workhouse and Infirmary has been brought before the Board of Guardians by a report from the Medical Superintendent of the Infirmary. Adequate accommodation has become, in fact, urgent. In the opinion of the Medical Superintendent, accommodation is required for eighty or one hundred beds in the infirmary. The Master of the Workhouse has also reported that the average number in the house during the year 1876 was 380; but it had now increased to the number of 502. He considered that 150 additional beds were required for the workhouse alone. Plans have been ordered to be prepared and submitted to the Guardians for the enlargement both of the workhouse and infirmary, so as to provide the additional accommodation required.

Drying Sewage.—It appears that at Oswestry it is proposed to dispose of town sewage by a system of drying the sewage before a fire, the desiccated matter being afterwards carted on to the land. According to the *British Architect*, preparations are being made for carrying out the scheme on a large scale. It is stated to have been tried successfully at Wrexham, and at a small expense. The dried substance is to be retained for fertilising grasses by means of sulphuric acid. Should these experiments show a practical and economical result, the system would, no doubt, have advantages over liquid sewage, to which there are many objections.

Corporal Punishment in Schools.—Corporal punishment in schools has lately obtained more than usual public prominence, the consequence of instances of its infliction resulting in bodily injuries. Corporal punishment can hardly, probably, be prohibited under all circumstances, yet it is seen that excessive punishments are too frequently administered. Any code of rules attempting to regulate this form of chastisement would appear to be very difficult—in fact, almost impracticable. Such, at least, is the result of a patient consideration of the subject by several School Boards. The alternative, it would seem, is to leave the matter chiefly to the discretion of the teachers, who, as a body, exercise the self-control necessary to enforce discipline and obedience in a moderate and temperate manner. The London School Board has recently had this subject again under consideration, in consequence of a memorial presented to the Board from several parishes in the borough, and a letter from the Honorary Secretary of the Greenwich District Teachers' Association. The memorial and the letter were to the effect "that corporal punishment was an injustice to the teachers, a hardship to the children, and by it education was much retarded." They therefore asked that it should be discontinued in Board schools. The School Management Committee, to whom the subject was referred, has replied that the matter had been repeatedly and fully considered, and that the Board do not see their way to make any alterations in the regulations on the subject.

Unpopularity of Cremation in America.—It is stated that the cremation furnace erected at Washington, in Pennsylvania, is about to be converted into a bone-dust producer.

Aids to Temperance.—The Midland Railway Company have, in consequence of, and in reply to, a memorial of the Grand Lodge of Good Templars, ordered that the price of tea and coffee in their refreshment-rooms shall be considerably modified, and further facilities are to be provided for the convenient and prompt supply of non-intoxicating beverages.

A much-needed Sanitary Improvement.—From the report just presented to the City of London Commission of Sewers, it appears that under the Artisans and Labourers' Dwellings Improvement Act, 1875, considerable progress has been made with the Golden-lane and Petticoat-square schemes. The final award of the arbitrator for both sites had been made, and amounted to £214,651. The number of houses to be acquired and taken down to carry out the improvements was, in all, 268, and the area to be dealt with about three acres. As soon as the ground is cleared, it will be laid out according to the plans approved by the Secretary of State, and offered for letting on lease, for the erection of dwellings for the poorer classes.

Urban and Rural Sanitation.—The Derby Town Council has resolved to purchase the waterworks of the town for £351,000. After considerable delay, the works for the supply of water to the villages of Chapeltown, Highgreen, Burncross, and Mortomley have been commenced. The Wigton (Cumberland) Urban Sanitary Authority has ordered a detailed sewerage scheme of the town to be prepared at once, having resolved to completely sewer the town. The Town Council of Margate have resolved to purchase the waterworks property, at a cost of £59,000, and to take the supply into their own hands. An analysis has shown that the water, with the exception of its being a little hard, is very pure. The existing machinery at the works is capable of providing a daily supply of 630,000 gallons. The Local Board of Croydon has decided to call in Mr. Bailey Denton, as to the advisability of deep draining the sewage-farm land, and the establishment of filter-beds for downward filtration, so as to relieve the farm and to make it more profitable, and also to advise them generally in the sewage arrangements.

The Removal of Infected Clothing in Iron Vehicles.—In the course of a discussion, at the Greenwich District Board of Works, a few days since, on the careless way in which infected clothing and bedding are removed from houses of persons suffering from infectious diseases, it was recommended that iron-covered carts or trucks be provided for conveying such infected articles from houses, and that a disinfecting apparatus be also procured. A case was alluded to where fifty persons were seen standing round a house from which infected articles were being removed. It was also proposed that an iron tank, which could be carried into the house and closed there, should be substituted for the cart. The Medical Officer of Health, meanwhile, thought the need of covered carts most urgent. He reminded the Board that the inspector of nuisances was liable to be summoned to the police-court by any person for removing infected articles in uncovered carts throughout the streets. The practice was, he added, going on daily, and must continue until the Board provided carts. The Clerk to the Board had, it was stated, at the request of the Works and General Purposes Committee, ordered a covered cart.

COMMUNICATIONS have been received from—

Mr. W. R. Poole, London; Mr. John Chatto, London; Dr. J. Matthews Duncan; Dr. Chevers, London; Mr. T. M. Stone, London; Mr. D. Colquhoun, London; Mr. B. R. Wheatley, London; Dr. J. Pearson Irvine, London; Dr. F. Churchill, London; Dr. J. R. Wolfe, Glasgow; The Honorary Secretary of the Irish Medical Association; Messrs. Bebr, Tweedie, and Co., London; Rev. T. Dowell, Radnor; The Secretary of the Society of Arts, London; The Registrar of Apothecaries' Hall, London; Mr. Balmanno Squire, London; Dr. C. Meymott Tidy, London; Dr. Carter, Liverpool; Dr. Robert Lawson, Edinburgh; Messrs. W. P. Thompson and Co., London; Dr. Elliot, Carlisle; Mr. Ed. Loefflund, London; Mr. R. W. Parker, London; Mr. Shirley F. Murphy, London; Dr. Edward I. Sparks, Mentone; Mr. C. Howard Vincent, London; Mr. E. L. Hussey, Oxford; Dr. William Wadham, London; Mr. J. Hamilton Craigie, London; Dr. Dunglison, Philadelphia, U.S.A.; Dr. John Murray, London; Mr. F. G. Heath, London; Dr. J. W. Moore, Dublin; Mr. W. A. Smith, London; Dr. J. M. Fothergill, London; Mr. Samuel Thompson, London; Rev. Dr. Haughton, Dublin; Mr. Tom Bird, London.

BOOKS AND PAMPHLETS RECEIVED—

Hardwicke and Bogue's Health Primers: Personal Appearance in Health and Disease; Baths and Bathing—Harry Lupton, L.R.C.P. Lond., M.R.C.S. Eng., Temperance, Abstinence, and Common Sense—The Plague as it concerns England—Army Medical Department Report for the Year 1877—J. L. Milton, The Hygiene of the Skin—Dr. Just Lucus-Championnière, La Trépanation guidée par les Localisations Cérébrales.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Glasgow Medical Journal—Révue Médicale Française et Etrangère—Practitioner—Bulletin de l'Académie de Médecine—Gazzetta Medica Italiana—Physician and Surgeon.

APPOINTMENTS FOR THE WEEK.

March 15. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. Walter H. Pollock, "On Colbert and Richelieu."

17. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Edmund Owen, "A Case of Strangulated Inguinal Hernia—Reduction *e Mane*—Operation—Recovery." Mr. W. F. Teevan, "The Diagnosis and Treatment of Impacted Urethral Calculus."

Royal College of Surgeons of England, 3 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

18. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

19. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Association of Surgeons Practising Dental Surgery, 8½ p.m. Mr. Francis Fox, "On Cysts of the Mouth."

Pathological Society, 8½ p.m. Dr. Norman Moore—Abscess of the Liver. Mr. Malcolm Morris—Specimens of Piedra. Dr. Dickinson will introduce (with Specimens) the subject of "Lardaceous Disease in reference to its Anatomical Distribution and Pathological Relations." Dr. Turner will show Specimens of Lardaceous Disease. And other Specimens.

Royal College of Surgeons of England, 4 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Harveian Society, 8½ p.m. Dr. Broadbent, "Cases of Mitral Stenosis." Mr. Malcolm Morris, "On some of the Rarer Affections of the Hair."

Royal Institution, 3 p.m. Prof. Tyndall, "On Sound."

21. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Royal College of Surgeons of England, 4 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Prof. Abel, "Recent Contributions to the History of Detonating Agents."

Society of Medical Officers of Health, 7½ p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 8, 1879.

BIRTHS.

Births of Boys, 1379; Girls, 1357; Total, 2736.
Average of 10 corresponding years 1869-78, 2461·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	987	1 36	2023
Average of the ten years 1869-78	841·8	777·1	1598·9
Average corrected to increased population ...	...	...	1721
Deaths of people aged 80 and upwards ...	...	...	178

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	4	1	7	2	8	1	1	1	3
North ...	751729	2	3	7	2	15	...	4	1	2
Central ...	334369	...	3	...	...	5	...	1	...	1
East	639111	1	5	1	1	13	...	...	...	...
South	967692	10	11	12	2	25	...	3	...	6
Total	3254260	17	23	27	7	66	1	9	2	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·048 in.
Mean temperature	42·1°
Highest point of thermometer	56·2°
Lowest point of thermometer	28·6°
Mean dew-point temperature	36·4°
General direction of wind	S.W.
Whole amount of rain in the week	0·08 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 8, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending March 8.	Deaths Registered during the week ending March 8.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2736	2023	56·2	28·6	42·1	5·62	0·08	0·20
Brighton	105608	44·9	69	54	50·2	31·5	39·7	4·28	0·08	0·20
Portsmouth ...	131821	29·4	86	62	...	...	...	...	...	...
Norwich	85222	11·4	54	38	55·5	32·5	42·9	6·06	0·02	0·05
Plymouth	74293	53·3	59	27	54·0	29·0	40·1	4·50	0·07	0·18
Bristol	209947	47·2	133	84	56·9	26·0	40·9	4·94	0·12	0·30
Wolverhampton ..	75100	22·1	69	50	53·4	25·8	39·0	3·89	0·08	0·20
Birmingham ...	388884	46·3	296	160	...	...	...	...	...	...
Leicester	125622	39·3	105	88	57·5	27·8	41·9	5·50	0·08	0·15
Nottingham ...	169396	17·0	149	113	56·4	26·0	40·9	4·94	0·13	0·33
Liverpool	538338	103·3	438	311	55·2	32·3	43·4	6·33	0·13	0·33
Manchester ...	361819	84·3	283	225	...	...	...	...	...	...
Salford	177849	34·4	132	106	...	...	...	...	...	...
Oldham	111318	23·9	87	91	...	...	...	...	...	...
Bradford	191046	26·5	135	100	52·6	30·6	41·5	5·28	0·03	0·08
Leeds	311860	14·5	235	186	54·0	31·0	42·2	5·67	0·07	0·18
Sheffield	297138	15·1	225	167	54·5	30·0	42·1	5·62	0·15	0·38
Hull	146347	40·3	124	88	54·0	31·0	41·6	5·31	0·07	0·18
Sunderland ...	114575	41·4	103	63	60·0	38·0	45·9	7·72	0·00	0·00
Newcastle-on-Tyne	146948	27·4	113	88	...	...	...	...	...	...
Edinburgh	226075	53·9	181	84	54·2	34·7	43·3	6·28	0·42	1·07
Glasgow	578156	95·8	389	238	52·7	36·5	43·5	6·39	1·31	3·33
Dublin	314668	31·3	191	218	59·7	28·5	45·6	7·56	0·17	0·43
Total of 23 Towns in United Kingdom	8502896	38·6	6342	4661	60·0	25·8	42·2	5·67	0·18	0·46

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·05 in. The lowest reading was 29·74 in. on Monday at noon, and the highest 30·48 in. on Saturday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

THE PRESIDENT'S ADDRESS

AT THE OPENING OF

THE TWENTY-EIGHTH SESSION OF THE GENERAL MEDICAL COUNCIL.

By HENRY WENTWORTH ACLAND, M.D., F.R.S.

THE circumstances under which the Medical Council assembles to-day will not need any lengthened treatment at my hands.

Bills for the amendment of the Medical Act are before both Houses of Parliament, and, though not new to you, need your attention. A Government Bill is before the House of Lords, and private Bills are before the House of Commons.

Had the present meeting been deferred till the Government Bill had passed the House of Lords, and the subject had been thus completely before the Lower House, where the chief discussion will take place, the Council would have had all the material before it at its meeting.

I learnt, however, that some who are strongly opposed to the Government Bill would have thought themselves placed at a disadvantage had the Bill passed the Lords without giving them the opportunity of offering active opposition in the Upper House, after discussion had been held by this Council.

The Council has been called to this preliminary meeting. If the result be to materially aid a settlement of medical legislation during this session of Parliament, the Council will, I am sure, gladly bear the inconvenience to which its members have been exposed at this moment.

The nature and present position of the several Bills before the two Houses are too well known to need much remark.

The Government Bill, introduced by the Lord President, has passed the second reading in the House of Lords, and comes on in committee on the 20th. It is substantially the Bill that passed the House of Lords last year, with certain amendments which were to have been then introduced in the House of Commons.

It establishes single Examining Boards in England, Scotland, and Ireland respectively. It aims at preserving the personal relations of the profession to their several institutions, while it takes away from these institutions the power of granting independent or competing licences. It insures for women the opportunity of obtaining licences to practise, and gives freedom as to the character of their examination. It regulates the relation of foreign and colonial practitioners to this country, meeting thereby in a liberal spirit the questions raised by M. Roger Marvaise and the Committee of the French Chamber of Deputies on his Bill. It also provides for the general superintendence of women acting as midwives throughout the country, in a manner little onerous to this Council, but still securing a due and healthy relation of the medical profession to a large class of persons who serve under it and who greatly need supervision.

The Government has positively declined to allow these important matters to be mixed up with the much discussed question—viz., what is the best form of executive for regulating the various matters comprised in the enlarging sphere of public work regulated by the Medical Acts? But in a spirit of conciliation, and having due regard to the wishes of certain members of the medical profession, it has undertaken to move that a Select Committee of the House of Commons should, without delay, institute a full inquiry into the constitution of the Medical Council. The Committee will have to consider what will be the best constitution of the body entrusted with administering the Medical Acts, having due regard to the objects of the Acts, the interests of the public, and the education and position of the profession of medicine.

Notices of amendments to the Government motion for the appointment of this Committee have been already given, and may, therefore, cause delay in the commencement of the inquiry.

Dr. Lush and Mr. Arthur Mills have each a private Bill. They take a somewhat similar course to that of the Government Bill in many particulars. They each propose a scheme for a new Medical Council. Dr. Lush reduces the number to nineteen, and alters the mode of appointment. He deprives the Universities of some of their representatives. He elects others by the votes of all practitioners. Mr. Mills keeps all the existing members, and adds six by general popular election, making the Council thirty in number.

Neither of these private Bills attempts the supervision of women who practise as midwives.

A third short Bill (Mr. Errington's) requires a double qualification of every registered practitioner, and further proposes to enact that no registered practitioner shall hold any appointment in a public Civil Service, asylum, public institution, or friendly society, unless he has been passed by an examining board composed of three examiners from England, Ireland, and Scotland respectively.

It is certain that, should any of these private Bills proceed to further changes, amendments will be moved with the view of materially changing their character.

At your last meeting in October you considered fully the Dentists Act and gave instructions concerning it. The Act is now in full operation. Up to the end of last year the number registered was about 4725. At present about 4790 are registered. After August of this year no one can be registered without a qualification.

According to a report from our Registrar (of whose patience and industry in carrying out the task—now executed once for all—of forming the Dentists' Register, one cannot speak too highly), it would appear that of the number registered 314 were Licentiates in Dentistry of the Royal College of Surgeons of England, and ninety-one Licentiates in Dentistry of the Royal College of Surgeons in Ireland. Of 4382 who put in claims to be registered on the ground that they were "*bonâ fide* engaged in the practice of Dentistry at the date of the passing of the Act," 2493 had declared themselves to have been practising dentistry separately, twenty-one in conjunction with the practice of medicine, twelve in conjunction with the practice of surgery, nineteen in conjunction with the practice of medicine and surgery, and 1837 in conjunction with the practice of pharmacy.

Much objection has been taken to the operation of the clause in which the term *bonâ fide* occurs. Some of the objections are certainly beside the mark. They are objections to the Act. If a proper case can be made out, the Act should be amended. Till then the Act has to be administered.

English law is very jealous of interference with existing rights. There is a class of persons now practising dentistry which will not, after August 1, be again reckoned among English dentists. What these do now they will, up to that date, continue to do. Hairdressers, perfumers, jewellers, blacksmiths, and others, have hitherto exercised the function of tooth-drawing. The law will not hinder them from doing so. If any of them, however, have fraudulently returned themselves to your office as *bonâ fide* in practice, "either separately" or "in conjunction with the practice of medicine, surgery, or pharmacy," it will be your duty to expunge their names from the Register. The Council will refer alleged cases to a committee of five. This committee will ascertain the facts in each case. The committee cannot erase the name, nor, pursuant to a legal opinion recently obtained, can it commence proceedings till each case has been formally submitted to it by the Council. The erasure must be the act of the Council itself, and this may at first constitute, no doubt, an onerous as well as a serious duty.

Notwithstanding these facts, few would question the utility of a Dentists Act, nor the propriety of its being connected with the Medical Council.

If one were to take a limited view of the medical profession and of the Medical Council, one might say it were better that they should have nothing to do with dentists, with midwives, with the licensing of women, or even with diplomas in preventive medicine, and that it were better to leave all "specialists" outside the control and beyond the sympathy of the medical corporations or the universities as represented in the General Medical Council. These several interests might, it is true, be erected into separate bodies and corporations, with all the consequences of competition for favour, and of freedom from the influence of the whole profession; but a General Medical Council of Education and Registration hardly deserves the name unless it seeks to maintain a body of persons fit to supply all the just needs of the community in respect of medicine, scientific or practical, preventive or curative.

The Medical Council has within the last few years re-

moved many prejudices, and given breadth and security to the opinions entertained on medicine both by the profession and the public.

By resolutions dated July 3, 1878, the Council resolved on an inquiry into its constitution under the Medical Act of 1858.

It is not for me to discuss a subject on which there is so much that may be said, or to balance opinions so opposed as some of those conscientiously held by persons of weight and knowledge.

The report which the Council on July 4 directed the Executive Committee to draw up on this subject has been forwarded to the individual members of the Council, and will be formally presented to the Council to-day.

It has been found necessary to take legal opinion on several points in the working of the Dentists Act. Changes have been made by the Executive Committee, acting under your instructions, whereby the work of the office is much promoted and greater accuracy secured. Arrangements have been completed for simplifying the accounts and insuring their correctness. Messrs. Spottiswoode have been appointed publishers to the Council. All educational and other reports or papers may be now obtained by the public from them. For all these details the Council is largely indebted to the untiring energy of the Registrar.

Several papers will be laid before you, and one from the Lord President, on foreign diplomas, demanding an early answer.

I venture to conclude with the expression of a desire, in which all can join, that this year may see the Council relieved from the anxiety of administrative and semi-political details, such as it has been my lot to submit to the Council on this and other occasions. It may then steadily discharge the far more congenial duty of considering how to secure the best education for our medical youth, and how to maintain, by the advancing knowledge of an honourable profession, the health and working power of the country.

This is not the first time that this hope has been expressed from the Chair. May it be the last. Long-continued discussions on legal powers, and protracted political questions of reform, are not always topics grateful to men who chiefly desire freedom to teach and time to learn the complicated scientific and practical questions connected with medicine. There is now a great opportunity for closing these discussions for years to come.

We, who are now in the Council, will have reason to rejoice if we are enabled to leave our successors unhampered by these distractions, and free to consider how to promote the efficiency of our medical institutions in their manifold relations to each other and to society.

Tuberculosis of the Testis.—In a lecture upon this subject by Prof. Verneuil, reported in *Le Practicien*, February 24, he observed that he protests against the opinion so generally held, that an orchitis can be produced by a "strain." The opinion, however, has been adopted by classic writers, and Velpeau and Gerdy, who were, so to say, always of opposite opinions to each other, yet both agreed in admitting that orchitis might be due to a "strain," acting by the vascular congestion which it caused, or through the compression of the cord by the pillars of the inguinal canal. Sometimes, it is true, we find a patient without blenorrhagia or other suspicious antecedents, seized, while making an effort, with a pain in the testis, followed by orchitis. But matters here are not so simple as they seem, for, in order that the lesion be produced, the testis must already have been affected, or, at all events, predisposed. In these cases the patient has already had inflammation of the testis, or induration which remained unperceived, or, again, some other affection of the urinary passages, as stricture or calculus of the bladder or prostate, or he may merely have perceived some pains in the testis. But one of the most common causes, although frequently misunderstood, is *latent tuberculosis of the testis*, which may persist for months without giving rise to acute symptoms. In the case he was lecturing upon, Prof. Verneuil felt certain that a tubercular induration existed at the time of the "strain," and this was found to be the case by a rectal examination, when the prostate and vesiculæ were found to be invaded and tumefied. At first the prostate is not always affected, but when it is attacked the sign is so absolutely characteristic that it dictates our diagnosis and prognosis.

ADDRESS ON LARDACEOUS DISEASE

IN REFERENCE TO ITS

ANATOMICAL SEATS AND PATHOLOGICAL RELATIONS.

DELIVERED AT THE OPENING OF THE SPECIAL DISCUSSION AT THE PATHOLOGICAL SOCIETY.

By W. HOWSHIP DICKINSON, M.D., F.R.C.P.

Mr. President and Gentlemen,—In responding to the request with which I have been honoured, I will be mindful, as in duty bound, of the injunction with which our late excellent President accompanied it—that I should be brief: and that I may be so I will keep as closely as may be to the text which has been chosen for me—

Lardaceous Disease in reference to its Anatomical Distribution and Pathological Relations.

I shall not occupy the time of the Society by historical retrospect, but will proceed at once to the topic upon which I have to invite discussion. Lardaceous disease—to use the term which the Pathological Society has authorised—appears to have remained, until within the memory of many who must be here to-night—I will not say idle, for it is difficult to suppose that it was not always associated with the diseases which produce it now, it is difficult to suppose that it was not always the contemporary of destructive lung-disease, of empyema, of discharging lesions of bone, and of syphilis,—but at least undetected. It accomplished its morbid purpose in secresy, until, during the last half-century, its deeds have been gradually brought to light.

The disorder consists in a widely pervading tissue change, which is shared by the bloodvessels, and the distribution of which, external to the vessels, is regulated by their course, as if they were the channels as well as the subjects of the morbid influence. I need not hesitate to assert—what probably few will question—that the special change is of the nature of an addition: an infiltration or penetration of the tissues by a material, foreign to their healthy nature, which the bloodvessels bring to them. That the bloodvessels bring it, is an assumption—lardaceous matter has not as yet been found in the blood,—but it is an assumption which is warranted by all the circumstances of the disease. We became acquainted with the infiltrating material first in the tissues: in this situation it has been the subject of many conjectures. Rokitansky, among the first by whom it was recognised as an infiltration common to many organs, regarded it as albuminous. Meckel looked upon it as allied to cholesterine; and his views found a later and an able supporter within these walls in the person of Dr. Montgomery. Virchow considered it to be akin to starch or cellulose, as if the human body in its deterioration approached the functions of a vegetable, and by the authority of his great name imposed upon it the designation of "amyloid." But succeeding observers, among whom an honourable place must be assigned to our own countrymen, Pavy and Odling, subjected the affected organs to ultimate analysis, showed that their proportion of nitrogen was that which belongs to the protein bodies, and that whatever amyloid characters the morbid substance might have, it had not the amyloid composition. Upon these observations, abundantly confirmed as they were by other chemists, both the amyloid and cholesterine views fell into desuetude as provisional rather than permanent.

The nitrogenous nature of the deposit being established, I will pass to distinctions which have been more recently claimed as dividing it from other nitrogenous substances. The marked dead-house character of the formation, the outward and visible sign by which it is known after death, is its reaction with iodine. It absorbs this eagerly, and may be made to assume almost the full tint of the reagent. Whether by a judicious adaptation of sulphuric acid with iodine a blue can be obtained, is a point of little importance now that the amyloid theory is extinct. I have seen black, but not blue. Some observers, to judge by their pictures, have found a blue which is nothing else than heavenly. If any such tint is ever produced, it is probably due to plates of cholesterine, which, together with the fatty products, are often found in connexion—though not necessary connexion—with the special change.

The ready and delicate test which iodine affords for the new material has supplied a stepping-stone to another point, namely, the action of the alkalies upon it. However marked the iodine reaction, it for ever vanishes upon the exposure of the tissue to even a very dilute solution of potash or soda; and this before there has resulted any material injury even to the microscopic structure of the organ. That which gives the reaction has been dissolved out or modified, and its place knows it no more. But it can be, as Dr. Marcet showed, recovered from the solution by the action of an acid, again to display its characteristic reaction and present itself, if I may use the expression, as a disease disembodied. There is a point about the iodine reaction which is full of practical suggestion. The property of displaying the "amyloid" reaction, or in other words of combining with iodine, is associated with the condition of acidity. Fibrine can be made to display it by solution in hydrochloric acid; and to lose it again by being allowed to absorb potash. With these indications the question at once presents itself: Is this material, which is so specially soluble in alkali, which behaves with iodine, and I may add with other reagents too, so much as if it had been modified by an acid,—is this material in any definite manner wanting in alkali so as at once to account for its separation in a solid state, and distinguish it from the normal constituents of the blood, which in organic composition it so nearly resembles? The answer is that the new material as compared with healthy tissue is wanting in potash, and that to a significant extent. I need not quote details which have been already made public; the deficiency has been ascertained with regard to both liver and spleen: in the liver, from a healthy average of 0·209 to 0·169 in 100 parts, or, according to Dr. Dupré, from one of 0·288 to one of 0·151 (a diminution, according to Dr. Dupré, of nearly one-half); in the spleen, from a healthy average of 0·311 to one under disease of 0·196. Together with this alteration are others, less striking, in the mineral constituents of the new material; the phosphoric acid is diminished, but not proportionately to the potash; the chloride of sodium variably increased, the earthy matters rather remarkably so. This last fact furnishes an important distinction between two conditions, which have some points of resemblance, and were for some time held to be identical—lardaceous enlargement and rickety enlargement. Under rickets the lime salts are diminished in the viscera as in the bones. In the lardaceous condition they are increased. Points of resemblance exist, as I have said, between the lardaceous deposit and fibrine which has been artificially deprived of its alkali. These relate not only to its iodine reaction, but to the insolubility of its iodine compound in water, its solubility in alkali, and ultimate composition. Dr. Marcet made this resemblance, to which attention had been drawn, part of the subject of an investigation which he undertook at the request of this Society. An acid solution of fibrine is precipitated by iodine; an acid solution of albumen—making use in this instance of acetic acid—is similarly precipated, whereas ordinary albumen is not. These are significant facts in relation to the possible origin of the morbid deposit and its characteristic reaction.

To put the chemical part of the question in a form suited for discussion, I would say that lardaceous disease consists in a general deposition of the fibrine or albumen of the blood modified by loss of alkali or gain of acid.

The part of the subject which presents itself in juxtaposition with the nature of the disease is its mode of production. It has been vaguely attributed to *cachexia*, including in this condition tubercle, cancer, bone disease, syphilis, rheumatism, and drunkenness. The unsatisfying nature of this view, however, suggested a further sifting of the states to which it had been traced. Two fundamental conditions remain as the general, if not the invariable, causes of the disease—the one is suppuration; the other is syphilis. Suppuration is the intermediary by which tubercle, cancer, caries, dysentery, empyema, pyelitis, and bed-sores act in producing the disease. That the blood should be the worse for the loss of corpuscles, and with them of potash, which pus involves, and that tangible results should follow from the impairment, may well be supposed.

I will not trouble the Society with details which have already been made public, but I may briefly state that of eighty-three cases of lardaceous disease, collected from the St. George's post-mortem books, seventy-three were in connexion either with protracted suppuration or syphilis, leaving but ten not ostensibly accounted for by one of these agencies. Suppuration occurred in sixty-two cases; syphilis was recognised in eighteen.

I am glad here to mention the name of an honoured, though no longer an active, member of our Society, Dr. George Budd, who, so long ago as 1857—though I have only recently happened to have come across his observations—gave a prominent place to continued suppuration among various causes to which he ascribed the "scrofulous liver," the name under which he described the state which we now know as lardaceous.

As to the other definite cause of the disease (syphilis), we cannot as yet even guess at its mode of operation excepting very generally as involving injury to nutrition in a variety of ways.

Passing from the general characters and causes of the change, to its distribution in the body, I come to a part of the subject the knowledge of which will, I have no doubt, be permanently added to by the members of this Society. It is not necessary that I should do more than briefly indicate its ordinary anatomy. The iodine reaction which is characteristic of the change is found earliest and oftenest in minute vessels, which in most instances are arterial, though perhaps the Malpighian capillary of the kidney is more early and more often affected than any other vascular structure. The straight arterioles of the cones usually participate soon after or even simultaneously. While upon the subject of the kidney I may refer to a fact which is strongly declared in its pathology: the lardaceous condition is often succeeded by fibrosis, as if the special infiltration acted as an irritant to the interstitial tissue.

Though it often happens that the change is to be found in the kidney, and not elsewhere, yet there would appear to be considerable variety in the place of its beginning. It early affects the liver, involving the terminal branches of the hepatic artery, and infiltrating the cells of the middle zone of the lobule. The spleen shares in the change, its Malpighian bodies assuming under the change, as is well known, the appearance of boiled grains of sago. The mucous membrane of the small bowel frequently displays the reaction upon the bloodvessels of the villi; it is found less often in the stomach, and less often still in the large bowel. The change is frequent in the lymphatic glands, which occasionally present recognisable, though not great, enlargement. And it has been found in the vessels of the skin and of the pancreas; and Dr. Grainger Stewart tells us that he has recognised it in the muscular fibres of the uterus. No doubt this list might be indefinitely extended, since there are, perhaps, few parts of the body which are free from the possibility of being attacked. The reaction sometimes occurs, and that most intensely, in the substance of intracranial tumours—probably of syphilitic origin,—as upon formations of the same kind elsewhere. Not only is the alteration found as stated in the smaller arteries, but I have known it to be strongly declared upon the lining of the aorta, upon fibrinous vegetations in connexion with diseased valves, and upon a fibrinous block in the spleen found in the same subject. I have referred to the occasional infiltration of epithelial cells. I have still to mention that the reaction is sometimes graphically displayed in the substance of fibrinous casts in cases of lardaceous disease of the kidney. For many particulars which are wanted in this necessarily brief outline, I must appeal to the wide experience of the Society.

But I have said enough to show that the lardaceous reaction, and I may go so far as to say the lardaceous material, is to be found not only in many organs, but in many tissues and morbid products—not actually in the blood, but in fibrine which has been separated from it during life in the shape of vegetations and casts; in vascular structures of all kinds, arterial, capillary, and venous, all necessarily in immediate contact with the blood; and in epithelial cells, which are but one step removed from it. Thus the blood would appear to be the origin, if not the seat, of the change; and its nature to be a permeation by something which the blood supplies. In short, the change is an infiltration—not a degeneration, as it has by some been regarded. It is not so much a change of existing tissues as an addition to them. This is a point which, among many others, awaits the verdict of the Society. Other points on which the opinion of the Society is needed will suggest themselves. I would ask, supposing the existence of a new material to have been

established, whether it is wholly new, and in all respects different from the normal constituents of the body, or whether it is, as I have ventured to infer, but a modification of something—either the albumen or the fibrine: I am inclined to believe it is of the latter—normally existing in the blood. What is the significance of the deficiency of potash in the new material? Has this any relation to its solidity and separation? Is the loss of potash in pus the process which links together, as cause and effect, the discharge and the deposit; or is the result produced by mere de-alkalisation; or are both these necessary results of suppuration insignificant or of minor importance?

Then what are the causes of the disease? Suppuration and syphilis are beyond question: they may act together or separately; but does the disease ever ensue from tubercle or bone disease in the absence both of suppuration and syphilis? I have not been able to satisfy myself that it does so; but the Society is wiser not only far than myself, but than any individual member of it. Are any causes of the disorder to be identified beyond suppuration and syphilis? Shall we still talk of its origin in cachexia, or limit its causes more definitely? It comes on readily within the tropics: is this for any further reason than that suppuration is here profuse, and soldiers and sailors prone to contract specific disease? Of the cases of which the cause is not ascertained, are any spontaneous, or is lardaceous disease but the attendant and follower of other morbid states?

I hope I have not kept the Society too long. I am well aware that whatever interest may belong to this discussion—and I anticipate that it will result in additions to our knowledge and adjustments of our mode of thought which shall be of more than temporary value—the interest will belong to the communications which have yet to be made, and in no respect to my stale reiteration of a twice-told tale.

Case of Inversion of Uterus of Nine Months' Standing Successfully Treated.—Dr. Stevens related to the Boston Society for Medical Observation the case of a primipara who was delivered, January 23, 1876, of a large child after sixteen hours' labour in the second stage. Two hours after, the placenta, which was said to have "grown to the side," was removed. From that time to September 13, when the case came under Dr. Stevens' care, the patient had suffered from more or less exhausting discharges, and had had a pessary applied, under the idea of the case being one of prolapsus uteri. On careful examination, Dr. Stevens found that a tumour the size of a small orange, resting on the perineum, was really the inverted uterus. An attempt at reduction was made, the uterus being grasped between the finger and thumb and the fundus resting in the palm of the hand. Firm pressure was made from within the vagina, while the left hand supported the uterus above the pubes. The fingers within the vagina were used as a wedge to dilate the cervix, as recommended by Dr. Emmet. After an hour and three-quarters sufficient dilatation had been produced to allow the fundus to be very nearly pushed within the cavity of the uterus, the organ having become soft and pliable and a third less in size. As the state of the patient prohibited the continuance of the reduction at that time, to secure what had been gained, the fundus was kept pushed up as high as possible by means of an indiarubber bag. This was kept in position for sixty hours. At the end of this time the attempts at reduction were resumed, and continued for two hours. Complete reduction seemed near at hand, but the attempt had to be discontinued again, as the patient's pulse was 160 and her respiration difficult. Four deep, interrupted silver-wire sutures were passed through the neck of the uterus and twisted, bringing the sides of the cervix together, and thus keeping the fundus within the uterine canal. Reaction occurred, and in a few hours the reduction was spontaneously completed, with pains resembling very severe labour pains. Next day the sutures were removed, and the organ was found to have assumed its normal position; its cavity measured three inches and a quarter. At the end of six days the patient was sitting up, and in ten days she walked out. In February, 1877, natural menstruation appeared, and in January, 1878, she gave birth to a fine boy, and has continued in excellent health.—*Boston Med. Jour.*, February 20.

MEETING OF THE GENERAL MEDICAL COUNCIL.

Held at their House, Oxford-street, W.

First Day—Tuesday, March 18.

The twenty-eighth session of the Council was opened on Tuesday last, under the presidency of Dr. Acland, whose address appears elsewhere in our columns.

Mr. Simon, in moving that the President's address be entered on the Minutes, objected to the programme of business which had been prepared, embracing as it did a number of subjects outside the primary statutory duties of the Council, and in one notable instance raising anew a discussion which had been fully debated by the Council for thirteen days last session, and formally reported upon by them to Parliament, viz., the Medical Act Amendment Bill.

The President reminded the hon. member that it was out of order to raise a discussion upon the programme at this stage, and

The motion, having been seconded by the Rev. Dr. Haughton, was unanimously adopted.

Various business committees were appointed, and the report of the Executive Committee on the constitution and working of the Council was received, and ordered to be entered on the Minutes.

Professor Turner (in answer to Mr. Simon's criticism), called for a letter from the Lord President of the Council, stating that his Grace would "be glad to receive any observations from the Council upon the Government Bill which they might, after consideration of the measure, have to make upon it."

Mr. Simon then moved a resolution expressing the thanks of the Council to the Lord President for forwarding copies of the Government Bill, but stating that, the matter having been fully discussed last session, and reported upon, the Council, still adhering to the views then expressed, did not at this stage of the Bill think it requisite to submit any new observations.

Dr. Rolleston seconded this motion.

The Rev. Dr. Haughton protested against priority being given to Mr. Simon's motion over those of which he had given notice in the official programme.

Sir Dominic Corrigan said he would vote against Mr. Simon's resolution as an attempt to stifle discussion, and as being founded upon the fallacy that the Government Bill of this year was identical with, or even similar to, that which the Council had discussed last session.

Dr. Andrew Wood then suggested the following amendment:—"Seeing that her Majesty's Government have resolved to refer to a Select Committee of the House of Commons the question of the constitution and working of the Medical Council as one of importance and difficulty, it seems expedient that the other questions connected with medical reform, some of which are of not less importance and difficulty than that of the constitution and working of the Medical Council, and in regard to which much diversity of opinion exists, should also be referred to the same Select Committee for investigation and report previous to any further medical legislation." He agreed with Sir Dominic Corrigan in denouncing Mr. Simon's resolution as an attempt to stifle discussion upon the important subjects raised by the new Medical Bill. [Postponed.]

After some observations from Professor Turner,

Sir William Gull called attention to a petition which had been presented by the Royal College of Surgeons of Edinburgh, as proving that there was a reactionary party upon the Council, who desired to stultify not only their report of last year, but that which had been formally agreed to by the Council years ago, viz., the decision that there must be a Conjoint Examining Board. The only difference between the two Bills appeared to be this: that in last year's Bill this was made optional; it was now made imperative, which brought it more in accordance with the recommendations of the Council. It would be monstrous to go back upon what they had done in the past, and say that they did not approve of those powers of the Bill because that which they had recommended was now made imperative. He demanded why these corporations should set themselves up in different

parts of the kingdom against what had been voted as the deliberate opinion of the Council. The minority were bound by the views of the majority.

Dr. ANDREW WOOD: No, no!

Sir WILLIAM GULL: Then where are we ever to stop? The honourable baronet proceeded to argue that if there was to be any public law upon medical affairs, the different divisions of the kingdom must come in and agree to the vote of the majority upon the Council. If not, the Council had better dissolve itself at once, rather than be guilty of going back upon an indirect issue, and stultifying themselves in the eyes of the whole profession, as would be done if the petition of the Royal College of Surgeons of Edinburgh were listened to.

Dr. ANDREW WOOD: That is a petition to the House of Lords.

Sir WILLIAM GULL: I know, but it shows the *animus*. Upon the grounds that he had previously stated he felt bound to vote with Mr. Simon.

Mr. MACNAMARA moved—"That this Council do now resolve itself into a committee for the purpose of considering the Medical Act Amendment Bill." This need not in the least interfere with Dr. Andrew Wood's motion, which would come on in its proper place.

The Rev. Dr. HAUGHTON, in seconding this amendment, said he should oppose Mr. Simon's motion, for the very reasons that Sir William Gull had given for supporting it, because Sir William Gull believed that the Bill of the present year was essentially the same as the Bill of last year, whereas the fact was that it differed most markedly from it, and by no means carried out the principles which the Council had at heart. Sir William Gull had laid great stress upon the provision for compulsory examinations which the Bill contained, and he (Dr. Haughton) entirely went with him in that respect; but he observed an important omission in the Bill of this year—viz., the provision by which, in the Bill of last year, a standard examination was made equal for England, Ireland, and Scotland. He would like those who were responsible to explain why that omission had been made. If it were persisted in, the result would be as keen a competition between the three kingdoms as ever there had been between the corporations.

After some remarks from Dr. Aquilla Smith,

Professor ROLLESTON said that nobody who was loyal to the profession could prefer to have the consideration of a Medical Act Amendment Bill referred to a Select Committee of the House of Commons rather than to the Select Committee which was now sitting round that table. Surely the axiom, "*Cuique in sud arte credendum est*," would be applicable. The result of the deliberations of the Medical Council was embodied in the recommendations published in the Minutes of last year, and he hoped the time of the Council would not be wasted in now going over the same ground.

Sir JAMES PAGET said that sooner or later no doubt the Bill would have to be discussed, but it would be much better to wait until the Bill had been debated in the Commons. He agreed with Mr. Simon that it was premature to discuss it now.

Sir DOMINIC CORRIGAN having stated that he would vote for Mr. Macnamara's motion,

The PRESIDENT said: It has been suggested that this Bill is the same Bill as was presented to us last year, but I must inform the Council that that is not so, because it embodies the amendments of which notice was given by Lord George Hamilton last year—amendments which were to have been introduced in the House of Commons after the Bill had passed the House of Lords, and which are now embodied in the Bill of this year by the Government draftsman. With regard to Dr. Haughton's criticism, I am informed that it is the opinion of the Government draftsman that the Bill as it now stands gives full power for the equalisation of the three Boards should they be established in the three branches of the kingdom.

Professor TURNER would like to ask why this Council was called together this week, if not for the purpose of discussing the Bill which was about to go into committee in the House of Lords. Mr. Simon said that this was not a convenient time to discuss the Bill, and that they must wait until it got into the House of Commons. What was the Council then called for at this unusually early period?

Mr. SIMON: I will answer that by saying that we are here two months too late for one purpose, and three months too early for another purpose. (Laughter.) As to the differences that had been spoken of between the present Bill and the Bill of last year, they simply consisted in the embodiment of the recommendations which had been made by the Council.

Professor HUMPHRY thought that if that were so it would appear that the business of the Council was rather to discuss those points in which the Bill differed from the recommendations of the Council last year. (Applause.)

Mr. Macnamara's motion was then put from the chair, and adopted.

Upon being put as a substantive motion,

Professor HUMPHRY moved, as an amendment, that the Council proceed to the consideration of the Lord President's Bill so far as it differs from the recommendations of the Council.

Mr. TEALE seconded this amendment.

The debate was continued by Mr. SIMON and Professor HUMPHRY; and

The PRESIDENT having explained that he had felt it his duty to call an immediate session of the Council, in order to enable them to discuss the Bill, and, if necessary, present their recommendations upon it before it had got into a committee of the House of Lords, suggested that it would be better not to refer the matter to a committee of the Council, as suggested by Mr. Macnamara, lest, by the time their report was returned, it should be too late for the Council to discuss and arrive at a conclusion upon the merits of the Bill.

Professor Humphry's amendment was then put to the vote, and carried.

Upon being put as a substantive motion,

Dr. QUAIN moved as an amendment—"That a committee be appointed to examine the Bill of the Lord President, and compare it with the Bill of last year, and with the recommendations of this Council, and to report to-morrow to the Council in what points it differs at present from the former Bill, and from the recommendations of the Council."

This amendment was, however, negatived, and Professor Humphry's motion carried by a large majority.

After a short adjournment the Council resolved itself into a committee to consider the Bill.

Professor TURNER then called attention to the amendment to Clause 5, of which he had given notice in the programme. The clause as it at present stood was as follows:—"A licentiate of the medical authorities for any part of the United Kingdom shall, before registration, be attached to one at least of those authorities by obtaining from such authority a medical diploma (whether degree, membership, associateship, or other); subject, nevertheless, to this qualification—that if on application by any such licentiate to any of the medical corporations for the said part of the United Kingdom, the corporation refuse to attach him to such corporation by granting him some medical diploma, or fail so to attach him within one month after such application, the applicant shall be entitled to be registered in the Medical Register without being attached to any medical authority." He proposed to substitute "any part of the United Kingdom" in lieu of the words "the said part of the United Kingdom," and "two months" instead of "one month."

Dr. QUAIN protested against the clause altogether. It was the most objectionable in the whole Bill. It would enable the most pernicious quacks in the country to demand registration although they had been refused by the authorities or corporations. He hoped the Council would take the clause into its serious consideration, otherwise foreigners and colonists would be able to come to England with bogus degrees, and the Council would have to inquire (and a most onerous duty it would be) what was the value of a degree at Zurich or Philadelphia; and, in short, any number of quacks or unqualified people would obtain licences to practise without any sort of control.

Sir WILLIAM GULL would state plainly why this clause had been inserted. The medical corporations had refused to admit women, and therefore this clause provided that duly qualified persons should be entitled to be registered, though not attached to a corporation. He quite understood Dr. Quain's suggestion; but if this clause was to be gone into it would raise the whole discussion as to the admission of women into the profession over again.

Dr. AQUILLA SMITH said that if this were so, the Government were very much to blame for not stating boldly their

object, instead of so wording a clause as to let women in by a side wind.

Professor HUMPHRY said that one month was quite sufficient time to enable the Examining Board to inquire into character. The Examining Board would have precisely the same power that the corporations now have to exclude quacks by requiring the same testimonials as to character.

Dr. SCOTT ORR agreed with Dr. Quain that this fifth clause was the most objectionable in the Bill; and

After some further observations from Professor Humphry, Sir Dominic Corrigan, and Professor Rolleston, who said that people of bad character would come under the operation of Clause 29, and be thus prevented from registration,

Dr. QUAIN said his objection was not to people who had been guilty of high crimes and misdemeanours, but to advertising quacks.

Professor ROLLESTON: That would come within the phrase "infamous conduct."

Dr. QUAIN: Pardon me, Parliament would not agree with you in that. It would never object to a man advertising in urinals and so forth. Parliament would say a man had a perfect right to get his living in that way.

Mr. SIMON suggested that the difficulty might be got over by putting after the words, "corporation refuse to attach him . . . by granting him some medical diploma, or fail so to attach him within one month after such application," a parenthesis of this sort: "(except on grounds which, if he had already obtained the diploma of the authority, would have justified the authority in withdrawing the same)."

At this stage of the debate, Professor TURNER said that his motion had raised such an important controversy, that he would, with the permission of the Council, withdraw it, in order that the question might be raised more directly by the resolutions of which notice had been given.

The Rev. Dr. HAUGHTON then moved—"That in the opinion of the General Medical Council, the addition in the schedule to the Lord President's Bill of a twentieth licence to practise (Lic. M.S.M.) to those issued by the nineteen medical authorities now by law entitled to issue licences to practise is objectionable, and that the said qualifying licence M.S.M. should not in itself be a registrable qualification. That, in the opinion of the General Medical Council, the difficulty of placing the names of women on the Medical Register who have passed the qualifying examination and have been refused the licence to practise by all the medical authorities of the United Kingdom, should be met by a distinct enactment in the Lord President's Bill, and not by the indirect method of constituting a twentieth licence to practise, of which men might avail themselves as well as women." He said that no person reading Clause 5 would ever expect that it was intended to bring about the registration of women, and one objection to it was, that under the guise of redressing the women's grievance a very great hardship was about to be inflicted upon men and the profession, by enabling not only women, but men, to avail themselves of this sort of side door into the profession. He objected altogether to the creation of this twentieth qualifying licence. If the Council would pass these two resolutions, the Government would feel themselves forced to face the question directly of registering women, and then it would be easily met. His first proposition was to abolish this column as far as men were concerned, and by the second proposition he would throw upon the Government advisers the responsibility of contriving some clause for the admission of women. Otherwise, the corporations would all be in danger, because men would be very indifferent whether the corporations chose to attach them or not as long as they could fall back upon this twentieth qualifying licence in case of refusal, and thus get themselves upon the Register. If this were done he believed that, even as regarded women, the M.S.M. qualification would only be a temporary provision, because other corporations and authorities in the kingdom would follow the example of the College of Physicians of Ireland, and the University of London, of opening their qualifications to women, and in course of time this twentieth licence would disappear.

Dr. AQUILLA SMITH having seconded the motion,

Sir WILLIAM GULL suggested that after the words "whether degree, membership, associateship, or other," in Clause 5 should be inserted, "except in the case of women who might have direct registration."

Rev. Dr. HAUGHTON said he was quite willing to accept Sir William Gull's suggestion.

Dr. STORRAR thought that although the alteration suggested might be satisfactory to the Council, it might not be satisfactory to the Government, because what was aimed at was the abolition of all distinctions between men and women as regarded their qualifications, and, if women were admitted on the Register without being attached to a corporation, so should the men.

Mr. TEALE suggested that the clause should be amended by the insertion of the word "female" before licentiate, and the substitution of the word "her" for "him" in the latter part of the clause.

Professor HUMPHRY asked why the clause should be altered at all? The clause had been evidently worded with great care, and after great consideration of all the conflicting interests. It guarded the interests of the universities and corporations, and at the same time provided carefully for the interests of the women. It was only if the corporation refused to attach a person that that person could be registered. Therefore the corporation had entire power over the matter, and it rested with them entirely whether men and women were attached to them or not.

After some remarks from Dr. Aquilla Smith,

The PRESIDENT said that Mr. Ouvry, their legal adviser, had suggested—and he thought the experience of the Council would justify the suggestion—that it would be very undesirable for the Council to draw up clauses in committee. He (the President) could say that the object of the clause was to admit women without interfering with the privileges and powers of the corporations. The Government wished to interfere in no way with those privileges, but to insure a uniform examination throughout the country. It was, however, felt hopeless in the present year to attempt to pass a Bill in which the women were frankly admitted without interfering with any particular corporation. If the Council proceeded to vote on Dr. Haughton's motion, the attention of the draughtsmen would be called to the point, and they would consider in what way they could amend the clause.

Mr. SIMON pointed out that as the word "refuse" now stood, without qualification, privilege of registration might be claimed by a person to whom an authority had properly refused a diploma on grounds of moral disqualification, and he suggested that they should pass a resolution—"That, in the opinion of the Council, privilege under that clause ought not to arise where an authority refused a diploma on grounds which justified the withdrawing of diplomas from persons to whom it had already granted them, or on grounds which justified the erasure of names from the Medical Register."

Mr. MACNAMARA agreed with what had fallen from the President, that they should not attempt to amend an Act of Parliament, but they could easily pass a resolution that the provisions of the clause should be restricted to the female sex.

Sir JAMES PAGET thought that if there were corporations which could not continue to exist without the help of compulsory examination and registration of everyone who obtained a certificate for practice, there was no sufficient ground for their existence at all. The corporation he had the honour to represent would gladly take part in the formation of a conjoint scheme, but they made it a condition that those who passed the conjoint examination should become attached to their body by diploma. They had no fear whatever of anybody claiming that diploma in order that he might be put upon the Register as a mere licentiate of medicine. He agreed that the clause had been framed with the greatest possible regard for existing interests—not preserving them for their own sake at all, but because they minister very largely to the welfare of the profession.

Sir WILLIAM GULL said he did not care about any alteration being made in the clause. His suggestion was only made out of regard to his friends who were so very anxious to maintain the privileges of the corporations. The intention was to institute an examination better than is undergone at present in any division of the kingdom; and if a man passed the conjoint examination he passed a better examination than he now passed in either England, Scotland, or Ireland.

Sir DOMINIC CORRIGAN thought the result of the institution of the Conjoint Board would be to introduce a lower examination, and he thought that the passing of this clause would be the death-knell of the corporations and universities.

The PRESIDENT then put Dr. Haughton's motions, which were both declared to be lost.

Mr. SIMON then moved—"That, in the opinion of the

Council, privilege under the clause ought not to arise where an authority refuses a diploma on grounds which justify the withdrawal of diplomas from persons to whom it has already granted them, or on grounds which justify the erasure of their names from the Medical Register."

Dr. HALDANE seconded the motion.

Sir WILLIAM GULL thought Mr. Simon's motion was quite unnecessary, because if a person could get his name registered as of right by a corporation, the corporation would only have to apply to the Medical Council if he were guilty of any discreditable practices, and the Council could remove him. It would be a great hardship to put it in the power of any corporation to refuse a man registration.

Dr. ANDREW WOOD, agreeing with Sir William Gull, thought it would be very difficult for any corporation to go into a case of discreditable practices and pursue it in a legal form without the chance of being called into court, and perhaps condemned in costs. The proper course was to put the applicant on the Register, to signify the objection to the Council, and leave the Council to strike his name off.

Mr. SIMON thought a man's name could only be removed from the Register if he was guilty of disgraceful conduct after his registration.

Dr. ANDREW WOOD pointed out that Clause 12 provided that erasure should take place if any discreditable act were committed either before or after registration.

Mr. SIMON then agreed to withdraw the motion.

The further discussion on Clauses 5, 6, 7, 8, and 9 having been adjourned to Wednesday,

The Rev. Dr. HAUGHTON, in moving "That in the opinion of the General Medical Council, the following amendment should be made in the Lord President's Bill: in Clause 24,

Table showing Results of Professional Examinations for Degrees, Diplomas, and Licences granted in 1878 *by the Bodies in Schedule* (A) *of the Medical Act.*

Licensing Bodies.	Degrees and Diplomas.	No. of Examinations to be passed.	First Examination.		Second Examination.		Final Examination.	
			No. rejected.	No. passed.	No. rejected.	No. passed.	No. rejected.	No. passed.
Royal College of Physicians of London	Licence	2	14	9	...	...	21	66
	Membership	3	...	...	...	1	4	20
Royal College of Surgeons of England	Membership	2	276	451	...	...	144	353
	Licence in Midwifery	1	...	...	...	...	...	...
	Fellowship	2	54	43	...	...	12	26
Apothecaries' Society of London	Licence	2	78	147	...	...	56	204
University of Oxford	M.B.	2	2(a)	7	...	...	2	5
	M.D.	Essay	...	...	...	...	...	1
	Examination in Preventive Medicine and Public Health	...	...	...	...	...	...	...
University of Cambridge	M.B.	3	35	43	4	23	6(b)	7(b)
	M.D.	1	...	...	...	...	...	4
	M.C.	1	...	...	...	...	...	1
University of Durham	L.M.	2	...	...	...	...	...	...
	M.B.	2	3	5	1	7	1	7
	M.D.	Essay	...	...	...	...	...	...
	M.C.	2	...	...	...	...	...	...
	M.D. for Practitioners of fifteen years' standing	1	...	...	...	...	1	3
			Preliminary	Scientific.	1st M.B.	1st M.B.	2nd M.B.	2nd M.B.
University of London	M.B.	3	71	92	36(c)	66(d)	20	25
	M.D.	1	...	...	...	...	4	6
	B.S.	1	...	...	...	...	1	6
	M.S.	1	...	...	...	...	...	...
Royal College of Physicians of Edinburgh	Licence	2	...	14	...	...	33	115
Royal College of Surgeons of Edinburgh	Licence	2	10	19	...	...	5	43
Faculty of Physicians and Surgeons, Glasgow	Licence	2	14	31	...	...	11	34
Royal College of Physicians of Edinburgh and Royal College of Surgeons of Edinburgh	Licence in Medicine and Surgery	2	51	94	...	...	56	159
Royal College of Physicians of Edinburgh and Faculty of Physicians and Surgeons of Glasgow	Licence in Medicine and Surgery	2	5	9	...	...	5	21
University of Edinburgh	M.B.	3	78	181	58	107	27	117(e)
	M.B. and M.C.	Thesis	...	...	...	...	5	30(f)
	M.D.	By promotion	...	...	...	...	...	...
University of Aberdeen	M.B.	3	36	59	45	49	15	44
	M.B. and M.C.	3	67	57	36	59	12	33(g)
	M.B. and M.C. (Old)	4	12	16	...	8	...	58(h)
University of Glasgow	M.B. and M.C. (New)	2	...	2	2	1(i)	...	...
	M.D.	Thesis	...	...	...	...	...	...
	M.B. and M.C.	3	...	...	...	...	...	14
University of St. Andrews	M.D.	1	...	...	...	...	...	2
King and Queen's College of Physicians in Ireland	Licence in Medicine	2	3	5	...	...	29	10
	Licence in Midwifery	1	...	...	...	...	1	78
Royal College of Surgeons in Ireland	Licence	7	60	94	41	69	4	79
	Licence in Midwifery	1	...	...	...	...	...	101
	Fellowship	3	...	3	...	3	...	3
Apothecaries' Hall of Ireland	Licence	2	16	19	...	...	6	23
University of Dublin	M.B.	2	*Vide* foot-note(k)		...	...	7	41
	M.C.	3	...	...	...	...	3	25
	M.D.	Thesis	...	...	...	...	...	...
Queen's University in Ireland	M.D.	3	48	139	61	109	30	47
	M.C.	1	...	...	...	...	30	35

(a) One also withdrew during the first examination.

(b) *Third* is not, strictly speaking, the *final* examination, because every candidate has, subsequently to the third examination, to write a thesis and keep an "act," in which he is subjected to more or less of oral examination.

(c) Of these, 7 were among the candidates who proposed to go through the examination with the exclusion of Physiology, and 1 was among those who, having previously passed the examination with the exclusion of Physiology, presented themselves to be examined in Physiology only.

(d) Of these, 4 availed themselves of the option of reserving their examination in Physiology for a future year, and 5 who had previously exercised the same option passed in Physiology only.

(e) Of these, 106 took M.B. and C.M., 9 M.B. alone, and 2 did not graduate.

(f) There were 35 candidates for the degree of M.D. Of these, 30 passed and 5 were remitted in consequence of their theses not having been considered of sufficient merit.

(g) Of these, all took M.B. and C.M., and also one other candidate now of age.

(h) Of these, 55 took M.B. and C.M., 3 M.B. only.

(i) Took M.D. only.

(k) Half M.B. Examinations:—Anatomy (Descriptive), of 94 candidates, 6 were rejected, and 28 passed; Botany and Materia Medica, of 68 candidates, 13 were rejected, and 55 passed; Physics and Chemistry, of 66 candidates, 6 were rejected, and 60 passed.

line 27, after the word 'doctor,' to insert the words 'either alone, or in conjunction with any other word or words,'" acknowledged that it was an amendment to the Dentists Act, because under that Act there was no power to restrain a person from calling himself a "surgeon-dentist" who was only a dentist and not a surgeon, but this amendment, which he had been requested by a large number of distinguished dental practitioners to bring before the notice of the Council, was one which secured them against usurpation of the title.

Mr. SIMON objected that it was out of the province of the Council to discuss an amendment of the Dentists Act which was not before them.

Mr. MACNAMARA seconded the motion, and thought it was distinctly in order, because one of the recommendations of last year went to this point, and there was a very wide difference in that respect between the present Bill and the Bill of last year, which difference was a legitimate matter for discussion.

Rev. Dr. HAUGHTON said there was a penalty provided for the unauthorised assumption of the designation of physician, surgeon, apothecary, or doctor, but there was no penalty against a man using a compound title, such as "physician-accoucheur" or "dental surgeon."

Mr. SIMON suggested that the amendment would include "veterinary surgeon."

Sir JAMES PAGET: Would not that prevent the use of the designation "surgeon-dentist," which it was provided in the Dentists Act might be used?

Professor TURNER pointed out that the clause provided against any person taking or using the designation of physician, etc., "or any designation or description used to distinguish registered practitioners of medicine or surgery"; and the terms "veterinary surgeon" and "surgeon dentist" were not used to designate registered practitioners of medicine and surgery; besides, the term "dental surgery" is distinctly allowed by the Dentists Act.

Sir JAMES PAGET having remarked that he thought it was not likely they would be able in the Medical Act of this year to amend the Dentists' Act,

The motion was put and negatived.

It having been resolved—"That the Council do resume,"

Dr. ANDREW WOOD moved, and Dr. AQUILLA SMITH seconded—"That the annexed table, showing the results of professional examinations for degrees, diplomas, and licences granted in 1877, by the bodies named in Schedule (A) of the Medical Act, be received and inserted in the Minutes."

(For table here referred to, see the preceding page.)

The motion was put and carried.

Dr. ANDREW WOOD then moved—"That the following table, showing the rejections per cent. at final examinations for degrees, diplomas, and licences by the bodies in Schedule (A) of the Medical Act, for the years 1875, 1876, 1877, 1878 (being a continuation of the tables appearing on pages 77-86, of volume xiv. of the Minutes), be, subject to the verification of the Registrar, received and entered in the Minutes."

Table showing the Rejections per cent. at Final Examinations for Degrees, Diplomas, and Licences by the Bodies in Schedule (A) of the Medical Act, for the Years 1875, 1876, 1877, 1878.

No.	Medical Authorities.	Qualifications.	1875.		1876.		1877.		1878.	
			Examined.	Rejected.	Examined.	Rejected.	Examined.	Rejected	Examined.	Rejected.
1	Royal College of Physicians of England	Licence	107	19·6	106	15·0	116	16·3	89	23·5
2	Royal College of Physicians of Edinburgh... ...	Licence	158	37·9	180	36·6	141	18·4	153	24·8
3	King and Queen's College of Physicians, Ireland..	Licence	88	19·2	130	16·9	107	19·6	107	27·1
4	Royal College of Surgeons of England	Member	498	25·9	546	25·2	546	20·7	497	28·9
5	Royal College of Surgeons of Edinburgh	Licence	63	23·5	54	12·9	63	9·8	48	10·4
6	Royal College of Surgeons of Ireland	Licence	159	23·2	109	11·0	93	4·3	105	3·8
7	Faculty of Physicians and Surgeons, Glasgow ...	Licence	35	40·0	61	32·7	31	32·2	45	24·4
8	Apothecaries' Society of London	Licence	235	3·7	284	10·9	261	16·8	282	23·1
9	Apothecaries' Hall of Ireland	Licence	27	14·8	29	24·1	31	22·5	29	20·6
10	Royal College of Physicians and Royal College of Surgeons of Edinburgh	Double licence	111	36·0	138	38·4	170	40·0	215	26·0
11	" Faculty, Glasgow	Double licence	80	33·3	85	37·1	31	32·2	26	19·2
12	University of Cambridge	M.B.	12	50·0	22	27·2	13	15·3	13	46·1
13	University of Durham	M.B.	2	0·0	0	0·0	2	0·0	8	12·5
14	University of London	M.B.	28	39·1	34	32·3	32	31·2	45	44·4
15	University of Oxford	M.B.	6	0·0	7	0·0	8	0·0	7	28·5
16	University of Aberdeen	M.B. and M.C.	73	17·8	75	13·3	54	24·0	48	31·2
17	University of Edinburgh	M.B. and M.C.	94	10·6	98	10·2	122	11·4	144	18·7
18	University of Glasgow	M.B. and M.C.	51	17·6	68	16·1	78	19·1	90	17·1
19	University of St. Andrews	M.B. and M.C.	0	0 0	2	0·0	1	0·0	2	0·0
20	University of Dublin	M.B.	46	15·2	49	—	46	16·6	46	14·7
21	Queen's University in Ireland	M.D.	73	36·9	86	36·3	73	39·7	77	35·7
			1,891 Total	23·2 Average	2,113 Total	18·9 Average	2,018 Total	18.5 Average	2,068	23·9

Mr. TURNER having seconded the motion, it was put and carried, and the Council adjourned.

SECOND DAY—WEDNESDAY, MARCH 19.

The PRESIDENT, before the Council resolved itself into a committee of the whole house, stated that he had ascertained from Government sources that there would be amply sufficient time for the Council to discuss the Bill, as it probably would not reach its final stage in the House of Lords for at least a fortnight. He added that he had ascertained from the same sources that the Bill of this year is practically the Bill of last year with Lord George Hamilton's amendments embodied in it.

In committee, Dr. QUAIN moved, pursuant to notice, the following memorandum on the examination and registration of women:—"Any medical authority or authorities that may think fit (or may otherwise be required) to confer a degree, diploma, or licence on a woman, may request the examination board to examine such woman, provided always that, should she pass the examination, she shall not be entitled to *claim* any degree, diploma, or licence other than that which can be conferred by the medical authority or authorities requiring her to be examined. The degree, diploma, or licence thus obtained shall be the qualification by which a woman will be placed on the Register. There shall be a right of appeal to the Medical Council, with power to provide an examination, if no medical authority be willing to admit women." He believed that the operation of Clauses 5, 7, 8, and 9 as affecting the admission of women and colonial and foreign graduates to the Register would be most injurious to the institutions represented on the Council, whose diplomas would be no longer of any more value than the mere admission to a club; because the real admission to the profession would be by the qualifying certificate. Within twelve months of the passing of the Bill with these provisions the very existence or utility of the corporations would be questioned. He had endeavoured to show yesterday that under Clause 5 men as well as women could get on the Register, and in the former case without any previous investigation of character. Dr. Humphry denied this, because he said a certificate of character would be required by the Conjoint Board. True, a man would have to show some such certificate of character as that he was in the habit of going to church, but that was not the sort of character which was wanted. The object of the Medical Council should be to keep up a high standard of professional conduct, and as the clause at present stood a man might be a mere advertising quack. He would get over that by making the clause as different as possible from its present wording. Under Mr. Russell Gurney's Bill it was perfectly voluntary on the part of the authorities to admit women, and yet ladies were able to obtain qualifications both in England and Ireland. The motion which he proposed would get rid of what had been well called this twentieth qualification. But the truth was, it was not a twentieth

qualification, but it was the single qualification if the Bill passed in its present state, because the whole of the others were swept away and nothing was left but the qualifying certificate of the Conjoint Board.

Sir WILLIAM GULL reminded the hon. member that the single qualification was what the Council had been aiming at for years.

Dr. QUAIN then formally moved—"That the above memorandum should be submitted to the Lord President as a method of settling the question of the admission of women to the Register."

Dr. AQUILLA SMITH seconded the motion.

Sir WILLIAM GULL said he had never listened to a more confusing speech than Dr. Quain's. The whole Bill which they had met to consider was framed on the supposition of a qualifying certificate from a Conjoint Board; and yet now Dr. Quain got up to argue against that.

Dr. QUAIN: I want to get rid of it.

Sir WILLIAM GULL: I confess that there is such a want of cohesion in the speech we have just listened to that I cannot understand it.

Dr. QUAIN suggested that it was no part of his duty to find brains for the hon. baronet. (Laughter.)

Sir WILLIAM GULL said that what he supposed Dr. Quain meant was that no woman should obtain a diploma unless she passed the Conjoint Board, and then the Medical Council would enable her to register if the corporation would not admit her.

Dr. QUAIN: That is it.

Sir JAMES PAGET: When the Conjoint Scheme was submitted to the Council a few years ago, it was said that it was adjusted only to the case of men. Subsequent to that the Amendment Bill was introduced, which required that all schemes for the sanction of the Medical Council should provide for the examination of women. The power of the conjoint boards would be controlled by the action of the Medical Council under the Act of Parliament, which would require that in all cases women should be examined. Then comes the point, whether that Act should be limited as Dr. Quain suggested, viz., that they should not be compelled to examine women unless the examination should be required of them by some one of the authorities willing to admit women to their diploma or licence. That would get rid of the difficulty in one way; but my doubt is whether it would get rid of it in a way at all satisfactory to women—that they should be required, as a condition precedent to their examination, to obtain from one of the authorities a promise that they would admit them. Their claim is to be admitted as nearly as possible in the same way as men are admitted to the Register; and I confess that the Bill of the Duke of Richmond does that in a better form than anything else that has been suggested. Moreover, although Dr. Quain's suggestion might provide for English and Irish women, it would not provide for Scotch women, because the Scotch universities would not admit them. I fail to see the dangers that Dr. Quain fears in having a qualifying certificate, which may be alone, without any subsequent diploma, used as giving a right to registration. I repeat what I said yesterday, that I believe that any joint scheme framed or worked without the concurrence of the authorities will be an absolute inutility; and that no person desirous of distinction, or even of attaining an average rank in the profession, will be content to be without the diploma of one of the authorities or corporations.

The motion was then put to the vote and declared to be lost.

Dr. QUAIN then moved a memorandum on the subject—"That, with the consent and approval of the General Medical Council, any of the medical authorities may confer, without examination, on a colonial subject or on a foreigner, a degree, diploma, or licence entitling him to be registered, provided that the medical authority has received such evidence as to character, professional education, and examination as would be deemed sufficient as a qualification for the like degree, diploma, or licence in the case of a person not a colonial subject or a foreigner. There shall be a right of appeal to the Medical Council, if no medical authority consent to admit such colonial subject or foreigner." He could not imagine anything more injurious than that foreigners or colonists should be able to come over to England and be placed on the Register without undergoing any examination or being affiliated to any medical school. His suggestion therefore was that foreigners or colonial subjects wishing to practise in this country should be compelled to apply to one of the institutions, who would inquire into their antecedents, both with regard to education, examination, and professional and personal conduct, before they gave them a diploma. And in order that it should not be open to any institutions to do that carelessly or indifferently, each case should be submitted to the approval of the Medical Council, thus subjecting those cases to a double ordeal before they obtained admission without examination. He could not see why Englishmen should require to be affiliated any more than foreigners; and he therefore moved the resolution embodying that memorandum.

Dr. PETTIGREW seconded the motion.

On the motion of Professor TURNER,

The REGISTRAR read the Lord President's amendment, as having an important bearing upon this subject.

Dr. ROLLESTON said there was a great deal to be said in favour of this second proposal of Dr. Quain's for getting a double sponsorship, instead of a single one, for colonial and foreign practitioners, because this was one of the things in which too much care could not be taken. A person in Australia or elsewhere might be guilty of something or other which would justify the corporation, under Clause 29 of the charter, or under the by-laws of such corporation, in either erasing his name or refusing to place it on the Register. Was it not much better, then, to have the antecedents of these men previously ferreted out by the corporations, one of whose great *raisons d'être* is that of protecting the public against having improper characters let into a profession which certainly had the greatest moral responsibility put upon it? It was quite possible to conceive that the Medical Council was not the fittest body in the world to satisfy itself on a number of points which might disqualify a person from being put on the Register, and this might be fitly performed by the corporations. No harm would be done to the very small class affected. It was not a case in which they were dealing with one-half of the human race, as they were in the case of women; and, on the principle that it would give moral control and a double security instead of a single one, he was prepared to support Dr. Quain's motion.

Dr. ANDREW WOOD also concurred.

Sir WILLIAM GULL reminded the Council that this question had been considered and reported upon two years ago, and could not now be opened up.

Dr. ANDREW WOOD said that it was complicated by what had taken place in France with reference to the recognition of our degrees. No doubt there were high foreign degrees, but there were also bogus degrees granted by foreign universities. There could not be any great hardship to a foreigner in requiring him to satisfy one of the medical authorities of his respectability and of his qualifications, without examination and without the payment of too large a fee.

Mr. SIMON insisted that the discussion of this question was foreign to the instruction of the Committee, which was to consider the points of difference between the recommendations of the Council and the Lord President's Bill. This matter had been discussed and reported upon unanimously by the Council as long ago as 1877. It was re-discussed and ratified last year, and the result was a recommendation in these terms: "That where a person who has been *bonâ fide* resident in a British possession outside the United Kingdom shows that he is of good character and has a recognised diploma or diplomas, as hereinafter defined, granted in such British possession, such person shall, upon payment of the registration fee, be entitled without examination to be registered." Precisely on the lines of that recommendation the Government Bill proceeded, and it was puerile when the Bil came back to the Council to re-discuss it.

After some observations from Dr. Storrar,

Dr. AQUILLA SMITH denied that there was any inconsistency in discussing the manner in which foreign or colonial practitioners should be registered. It was most important that the Government should insist that reciprocity should be established between this and continental countries as regards the recognition of degrees, especially having regard to what had taken place in the French Chambers.

Mr. TEALE pointed out that probably it would be better to have one security than two, because in the case of a divided responsibility very often a duty was not performed at all.

Sir WILLIAM GULL reminded the Council that one of the arguments that the committee of which he had been chairman had put forward, to be used by the English Government in dealing with the question of the recognition of English degrees in France, was the liberal way in which the Council was about to deal with foreign diplomas. He therefore protested against any reaction upon this point.

Dr. HUMPHRY concurred in this, and

Dr. PITMAN said that if the Council were guilty of the inconsistency of advising the Government one way one year and the opposite way the next year upon the same question, the result would be that Government would act without their advice at all.

Professor TURNER said that in adopting Dr. Quain's motion there was no inconsistency with the advice they had given the Government last year, nor was it the slightest departure from the liberal policy which Mr. Simon pointed out had been laid down by the Council in previous years. It was simply suggesting to the Government that there might be a better way of getting these people on the Register than that contained in the Bill.

Dr. QUAIN having replied, the motion was put to the meeting, and carried by twelve votes to seven, five of the members declining to vote.

A communication was then read from the Privy Council, enclosing the following letter, and asking the Council for such remarks as they might have to offer upon it:—

Gowan Park, Cupar-Fife, N.B., March 3, 1879.

From Keith Norman MacDonald, President of the Foreign Graduates' Association, to his Grace the Duke of Richmond and Gordon, K.G., Lord President of the Privy Council, Whitehall, London, S.W.

My Lord Duke,—I have the honour to crave your Grace's indulgence for addressing this note (which I consider will give less trouble than a petition or request for the reception of a deputation) on behalf of the "Foreign Graduates' Association," to draw your Grace's attention to Clauses 5 and 6 of the Bill to amend the Medical Act of 1858, which your Grace has introduced into the House of Lords, and which stands for a second reading on Tuesday, the 11th inst.

It may not have been represented to your Grace that there are a great many doubly qualified and registered Englishmen practising in this country who have graduated on the Continent of Europe, many of whom are men of considerable scientific attainments, and some of whom have actually practised abroad, though not necessarily for a period of ten years, and who look upon it as a grievance that no provision has been made in the Bill now before the House of Lords for the recognition of their degrees, as *additional qualifications*, to be admitted to the Medical Register under the amended Act.

These gentlemen, as just stated, numbering several hundreds, are doubly qualified, registered, and highly respectable practitioners, who have hitherto refrained from pressing their claims, as they fully expected that in any amendment of the Medical Act of 1858, introduced by the Government, their claims to recognition would be considered on the score of their having graduated prior to the passing of the amended Act.

If, therefore, it is not assuming an undue liberty, may it please your Grace to give this subject some consideration when the Bill comes on for its second reading, and before it passes the House of Lords.

I have, &c.,

(Signed) K. N. MACDONALD, M.D.,
Exam. F.R.C.P. Edin., L.R.C.P. Lond., etc., President F.G.A.

Dr. ANDREW WOOD was at first disposed to receive this suggestion favourably, but he afterwards stated that Sir James Paget had shown him a difficulty which made him shrink from moving the adoption—namely, that it would be recognising the degrees of foreigners who perhaps had not passed the Staats-Examen in Germany, for instance, which was the only licence to practise there.

Sir JAMES PAGET then moved a resolution with regard to this letter, informing his Grace that the matter had been carefully considered by the Council and reported upon to his Grace in the month of May, 1877. The learned baronet stated that in many parts of Europe a mere diploma does not admit to the right to practise unless the person passes the Staats-Examen, and of course it could not be supposed that any person would be allowed to practise in England who had not been allowed to practise in his own country. That was the argument used in the French Chambers in support of the Bill which had been introduced upon this subject, the argument being that a number of Germans who had failed to pass the Staats-Examen were coming over to France and claiming the right to practise upon their diplomas. He would call Dr. Quain's attention to this, because it appeared to him to have a bearing on the resolution which he had already carried upon the subject.

Dr. QUAIN pointed out that his motion, if embodied in the Government Bill, would place on the medical authorities in this country the duty of ascertaining such evidence as to character, professional education, and examination as would be deemed sufficient as a qualification for the like degree in this country.

In the course of a discussion which followed upon this letter, it was pointed out by Sir William Gull that the writer of it signed himself "M.D.," although there was no such qualification added to his name on the Register.

Dr. HALDANE also pointed out that one of his qualifications was Erlangen, which was one of those obliging institutions which conferred degrees *in absentiâ*.

Mr. TEALE said that many English practitioners would like to add M.D. to their names, but were unable to spare the time to win the distinction. It would be hard upon such men if a door were now opened for foreign universities to be allowed to manufacture an easy plan by which a man could go abroad for a month or two, and come back entitled to write M.D. after his name.

The resolution was then put from the chair, and carried by a large majority.

A motion by Dr. Humphry, being for a purely verbal alteration in Clause 10, was discussed and carried.

The Rev. Dr. HAUGHTON then read the following resolutions:—"(1) That in the opinion of the General Medical Council, the Lord President's Medical Act Amendment Bill now before the House of Lords should be amended by the restoration to it of the preamble to Clause 13 of the Lord President's Bill which passed the House of Lords in 1878, which preamble is omitted without sufficient reason from the Bill of 1879; an omission which, in the opinion of the General Medical Council, endangers the principle of equal fees and equal standard of examination in each of the three divisions of the United Kingdom." [N.B.—The omitted preamble is as follows:—"Whereas, under the Medical Act, 1858, the General Medical Council has certain duties as regards the superintendence of the examinations to be gone through in order to obtain qualifications for registration from the medical authorities, and it is expedient to give to that Council powers for the performance of the like duties in the case of medical boards, in order that the qualifying certificate may be granted on the like terms in all cases: be it, therefore, enacted as follows."] (2) "That in the opinion of the General Medical Council, Clause 27 of the Lord President's present Bill gives to the Medical Council too wide and undefined authority to delegate its powers to other bodies, and even persons, with respect to the framing of examination rules; and that it is absolutely necessary that this provision should be very clearly limited and defined." He said that the University of Dublin, some few days ago, petitioned the House of Lords, through the Lord Chancellor, who happened to be Chancellor of the University, upon this subject—their desire being to avoid having three different standards in the three kingdoms, which would produce all the evils of the old system of competing bodies. He had now ascertained from Lord Portadown that the amendments about to be moved in committee by the Lord President of the Council removed this objection. He immediately telegraphed to Trinity College, "Am I authorised to withdraw my motion?" and the reply he had received was, "We are quite satisfied." (Applause.) Coupled with that was an instruction to facilitate as far as possible the Lord President's Bill, the University of Dublin being satisfied that it was an excellent measure. (Loud applause.) He therefore withdrew his motion as far as regarded inequality of standards. Then, as to the other point of the inequality of fees, it was covered by a motion of which he found Mr. Macnamara had given notice, and he therefore would withdraw that also.

Mr. MACNAMARA said he was very much in the same position, because whereas he had given notice of a motion recommending the equalisation of the curriculum and of the fees, he found that the Government had anticipated it with regard to the curriculum in the amendments about to be introduced. With regard to the fees, however, that was still omitted, and he strongly recommended the adoption of the English scale of fees, which had been also accepted by the College of Surgeons in Ireland. In doing so a great concession had been made to the public, because whereas at present for the double qualification a student would have to pay twenty-five guineas to the College of Surgeons, and fifteen guineas to the College of Physicians, in all forty guineas, it was now resolved to adopt the English scheme of paying thirty guineas in all. He would move his resolution recommending the equalisation of fees.

Sir WILLIAM GULL in seconding the motion said he was glad to see that the Bill provided for the proper administra-

tion of the fund to be raised by these fees, viz., that they were to be devoted to public purposes, such as museums and libraries connected with the medical schools, because he would be sorry to see one-third of the fees going into the pockets of the examiners, for instance. (Laughter.)

Professor TURNER said he did not think the Council ought to tie the corporations up to the exaction of this identical fee. The circumstances were not the same in every part of the kingdom. In Scotland, for instance, they had no such institutions to keep up, in the shape of museums and libraries, as the College of Surgeons of England possessed; therefore he did not think the Council had a right to impose upon the authorities the charging of a fee equal to what was charged in England, unless so much of it could be devoted to public purposes as was proposed to apply under the English scheme.

Mr. SIMON also expressed doubt as to the necessity for a uniformity of fees, although he had no doubt of the necessity for uniformity of curriculum; but he thought that, according to the laws of supply and demand, fees might be left to find their own level. Let each division of the United Kingdom form its own estimate of the public objects to be satisfied, and pitch its price accordingly. He thought this question of uniformity of fees was not a matter which the Council ought to trouble itself with.

Professor ROLLESTON hoped the corporations would think not only of the maintenance of museums and libraries, but also of the endowment of professorships and medical research. How much did he owe to what he had heard from gentlemen sitting round that table! He had had the privilege of reading Mr. Simon's, and of hearing Sir James Paget's and Professor Owen's lectures, and he trusted the corporations would take high ground in the advancement of science by paying for the delivery of lectures, and also by endowing medical research.

Dr. ANDREW WOOD agreed with Mr. Simon that it was no part of the duty of the Medical Council to prescribe uniformity of fees, which might be left to the discretion of the different bodies. As the resolution seemed to point to Scotland he protested indignantly against the idea that the Scotch universities would ever be guilty of the meanness of competing for students by lowering their fees. The Council did well to regulate the curriculum and to regulate the examinations, but it was beneath its dignity to meddle with this question of fees.

The Rev. Dr. Haughton having replied, the debate was adjourned on the motion of Sir Dominic Corrigan, and the Council resumed and adjourned to the morrow.

UNIVERSITY OF DUBLIN: PRACTICAL VACCINATION.—The University Council adopted the following, among other resolutions, at the meeting on Wednesday, March 5, viz.:—"That a systematic course of instruction in practical vaccination, of one month's duration, be required from all candidates for the M.B. degree, such course of instruction to be attended in the Dublin Cowpock Institution or its branches." This resolution had been previously adopted by the Board of Trinity College.

NERVINE TONICS.—In patients suffering from nervous affections, and who from their pallid state evidently stand in need of tonics, Dr. Weir Mitchell states that he is in the habit of employing iron in combination with one of the three valerianates—iron, zinc, or strychnia—when general nervousness or hysteria is present. The following formula answers the purpose, and is suitable for hospital patients from its comparative inexpensiveness:—℞. Zinci valerianatis, ferri tartratis, āā. gr. ij., m. f. pil. ter die.—*Boston Med. Jour.*, February 20.

A SIMPLE APERIENT.—Dr. Weir Mitchell, lecturing on a case of nervous affection in which constipation existed, said that he had recommended the girl to take each morning, on rising, a tumblerful of water in which was dissolved a teaspoonful of common salt. The water should be cold, or it might nauseate. "This simple aperient I frequently employ in cases of constipation, and generally find it efficient. There is great advantage in starting the bowels and in keeping them in a soluble condition, particularly in cases of nervous disorder in women, as it sometimes clears up obscure points in the case, and at all events eliminates one source of error."—*Boston Med. Jour.*, February 20.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

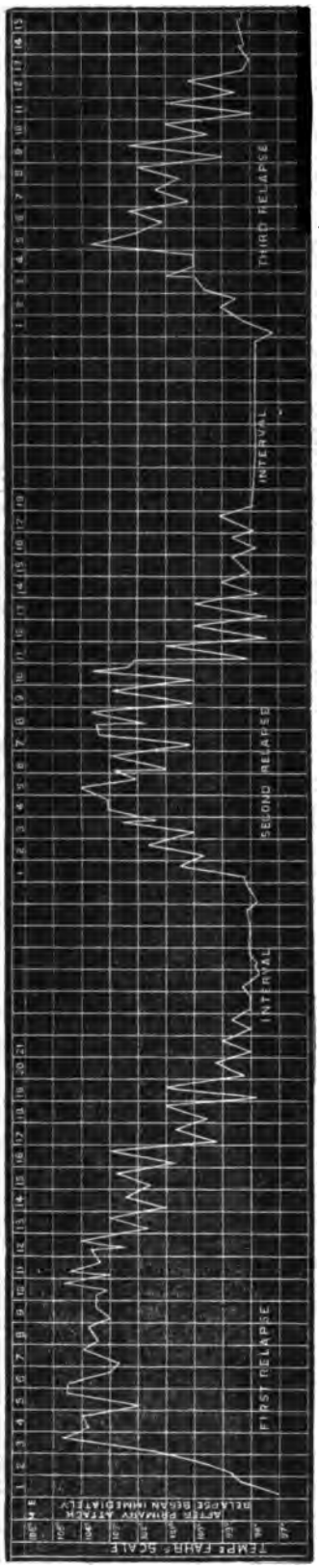
By J. PEARSON IRVINE, B.A., B.Sc., M.D. Lond.,
Assistant-Physician to Charing-cross Hospital, &c.

(*Continued from page 288.*)

IN my last contribution I related an example of intercurrent typhoid-relapse, and concluded with a simple case in which diagnosis would have been impossible had not the thermometer been used. In this paper three cases of relapse are given, and each yields facts of special and general interest. The three taken together serve to prove that our knowledge of the nature of relapse is still imperfect. The first case is one of *multiple* relapse, unattended by complications; the second, one of relapse, complicated by pneumonia; and the third, one in which very possibly an *intercurrent* relapse interfered with the normal course of the fever. The very fact that there are doubts in regard to intercurrent relapse in typhoid tempts me to ask a careful examination of the chart in the last case, and a comparison with other so-called intercurrent charts here or elsewhere given. The more one studies the varieties of typhoid and its relapses, the greater seem the difficulties of definition. But the first case which I narrate in this paper will by its temperature-chart speak for itself.

Case 15 is in many respects the most interesting of the whole series. In it three relapses occurred, each clearly defined and separated from the other by distinct intervals of apyrexia lasting several days. The patient was a male, aged twenty-four, and was under the care of Dr. Pollock in Charing-cross Hospital. He was admitted in October, 1877, and eight days afterwards his primary attack of typhoid, which had lasted four weeks, seemed to be at an end. The temperature became subnormal, but did not remain so, for within twenty-four hours it rose suddenly and quickly, and by the third afternoon of what proved to be relapse was 104·6° Fahr. It had risen from 97° Fahr.—nearly eight degrees—without remission. The pulse was never above 120, and usually about 100; the bowels were constipated. There was a remission of the temperature on the fifth morning, but on the fifth evening it was again 104·6° Fahr., and it fluctuated for the next five days between 104° Fahr. and 103° Fahr., with a slight tendency to daily remissions. It did not fall on the eighth-ninth days, as in more favourable cases, and on the tenth evening was as high as 104·7° Fahr. The patient during these days was as ill as he could be; he had a weak and frequent pulse, was troubled with vomiting, and was only kept alive by stimulants. He passed two or three typhoid stools daily, and had a typhoid eruption. One could not but contrast this dangerous case with others of favourable omen, in which the temperature fell at the very time when here it remained persistently high. On the twelfth evening the temperature began a favourable fall, and on the morning of the fourteenth day was only 101° Fahr. For the two following days it exacerbated, but on the sixteenth evening fell decidedly, and gradually descended to subnormal on the twenty-first day of relapse. On the sixteenth day the patient was exceedingly low, and his stimulants were increased, with the best results. Constipation was marked at this time, and simple enemata were given. On the twenty-first day convalescence began, and for about seven days temperature was subnormal. Then came a *second relapse*. During the apyrexial interval constipation persisted. Relapse set in suddenly, and the only warning was given by the thermometer. On the first day the temperature was 98° Fahr., and on the fifth day 104° Fahr. The patient looked ill, but not seriously ill. He had no diarrhœa; on the contrary, constipation was still obstinate. From the fifth to the seventh the temperature fell decidedly, and on the morning of the seventh day was only 100·2° Fahr. But the evening temperature remained high to the tenth day (103·6° Fahr.), and the patient, judging by general symptoms, was not free from danger. On the tenth evening a "critical" fall began, and went on to the following morning, when the temperature was but 98° Fahr., a fall of nearly *six degrees* having occurred in less than twelve hours. A slight rise followed, but only to 101° Fahr., and day by day the temperature fell, and became

subnormal on the eighteenth day of relapse. For the succeeding eight days convalescence seemed established,

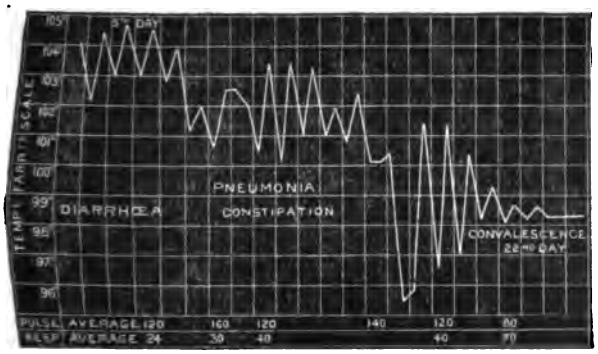


Case 15: Three Relapses of Typhoid (a male, aged twenty-four).—All the relapses observed in hospital, and separated from one another by distinct periods of apyrexia. *First relapse* set in at end of primary disease, which had lasted a month. Temperature went up from 97° Fahr. to 104·6° Fahr. by third day of relapse. On the fifth day it was 104·6° Fahr., and it approached this level daily to the twelfth evening, the man being very ill. On the thirteenth day a fall came of critical import, and continued to the twenty-first day of relapse. Then for seven days the temperature was subnormal. A *second relapse* occurred, in which fever rose rapidly, and reached its height on the fifth day (104° Fahr.). But up to the tenth day the temperature daily approached this level, and the patient was very ill. A critical fall came, and on the eighteenth day this relapse was at an end. For subsequent eight days temperature was subnormal. A *third relapse*, however, commenced, in which highest temperature was reached on the fifth day. Thenceforward temperature tended downwards; on the eighth-ninth days fall most decided. Fever ended on the fourteenth day. Permanent convalescence then began, and patient rapidly recovered without a bad symptom after an illness lasting one hundred days. (In the chart, as published, the fever of the *primary attack* is not given. *Vide* text.)

and the patient craved for food; the temperature continuing subnormal and constipation being decided. Then came a *third relapse*, as well marked as its predecessors. From 97·4° Fahr. the temperature rose with little remission to 103·8° Fahr. on the fifth day—that is, nearly six and a half degrees. It may be said in this relapse that from the fifth morning there was a distinct downward tendency to the end of the attack, but the relapse has a marked similarity with the first and second, and with those met with in other cases. As in many favourable instances, there was no tendency at any hour from the fifth to the tenth day to the elevation of temperature reached on the fifth day, and the patient day by day seemed to improve, the general symptoms being comparatively insignificant. On the ninth morning there was a considerable fall to 99° Fahr., and though the temperature on the same evening rose to 102·3° Fahr., the daily fall afterwards showed permanent tendencies. The third stage of the relapse was entered upon, but cut short; from the tenth day the temperature went down, and on the *fourteenth* day became subnormal, where it remained for many days, in which an uninterrupted convalescence was entered upon. The patient recovered without further troubles after an illness which had lasted about one hundred days. It is unnecessary to dwell on the remarkable interest of this case. The relapses (three in number) are distinctly separated from one another by apyrexial periods of apparent convalescence, and they ran a course identical in kind, except as regards duration. They lasted twenty-one, eighteen, and fourteen days respectively; in each the highest temperature was reached on the fifth day; in the first two the temperature remained high from the fifth to the tenth or twelfth days, and the patient during this stage was dangerously ill; in the third relapse the temperature fell during this time, and there were less evidences of danger. During these relapses one or more of the symptoms of typhoid—such as rash, stools, etc.—were met with; constipation prevailed rather than diarrhœa. There was never any jaundice, and the primary attack was typically typhoid.

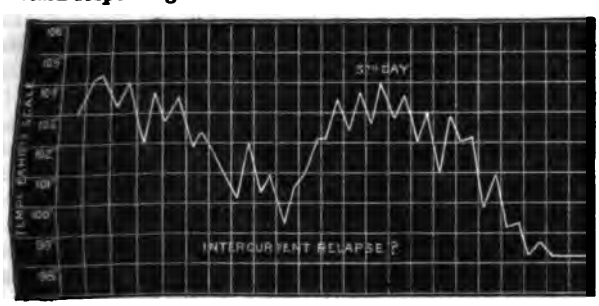
Case 16.—A female, aged twenty-six, suffered from primary relapse of typhoid fever, and during the attack was a patient in Charing-cross Hospital. The temperature in this relapse reached its height on the fifth day (104·8° Fahr.), and on the sixth and seventh days it was above 104° Fahr. Diarrhœa was a bad symptom almost from the onset of relapse, but no extraordinary rise or fall of temperature could be traced to it. From the eighth day the temperature went down satisfactorily, for on the seventh evening it was 103·9° Fahr., and on the ninth morning only 100·6° Fahr., the fall being steadily progressive. Diarrhœa continued, and there was some hæmorrhage from the bowel, but the regular fall of the temperature was deemed most favourable, notwithstanding the diarrhœa and hæmorrhage. The temperature immediately exacerbated, as one would expect in the most favourable cases; but, in this instance, it was irregular, because an attack of pneumonia set in. The pneumonia was well marked, and with its onset the bowels became constipated. From the ninth to the fifteenth day this complication kept the temperature high, and gave to the chart a characteristic variation met with under like circumstances in most of the acute specific diseases. The attack of pneumonia ruled the relapse temperature from the ninth day, and its crisis was quite typical, for on the fifteenth day of relapse and the sixth day of pneumonia the temperature was 102·4° Fahr., and then it fell with such rapidity that on the seventeenth morning of relapse (and eighth of the pneumonia) it was down to 95·4° Fahr. Afterwards it fluctuated in the manner seen at the end of many attacks of primary typhoid, but the relapse ended on the twenty-second day in spite of the pneumonia complicating it, and was followed by uninterrupted convalescence. Thus an acute complication in a favourable relapse modified the fever, but did not prolong its duration. The patient made a good recovery. (For chart of this case see next page.)

Case 17.—A female, aged sixteen years, was admitted into Charing-cross Hospital in September, 1878. She was suffering from typhoid fever, the onset of which dated about a fortnight back. On the evening of admission her temperature was 104·2° Fahr., and it thenceforward sank day by day to 99·4° Fahr. on the ninth day after admission (twenty-second day of disease?) Then a relapse commenced at the beginning of the fourth week of the primary attack. The temperature had been taken carefully, and on the twenty-second day was never below 99·4° Fahr.; and the patient's general condition did not indicate a termination of the



CASE 16: RELAPSE OF TYPHOID COMPLICATED WITH PNEUMONIA (a female, aged twenty-six).—On fifth day of relapse temperature was 104·8° Fahr., and on the sixth and seventh above 104° Fahr. On the ninth morning temperature was only 100·6° Fahr. Pneumonia then set in, and kept the temperature high for six days. The relapse ended on the twenty-second day, the complication not prolonging its duration. (*Vide* text.)

disease. The temperature on the third evening of the relapse was 103·6° Fahr., and on the fifth 104·2° Fahr. There were morning remissions from the third to the fifth days; but the degree of remission corresponded with the daily evening increase of the fever. Thus the elevation of temperature in the fourth week of the disease was characteristic of relapse; and, as the primary attack had not ended when such elevation set in, it is only right to suggest that it was the consequence of an intercurrent relapse. There was no complication to explain the new fever, which ran a short but somewhat typical course. On its eighth day came a decided fall of temperature (101° Fahr.); and from the eighth evening the temperature, being then 102·8° Fahr., ran down almost continuously to the thirteenth day, when it became subnormal and the patient entered upon a rapid convalescence, during the early days of which there was decided apyrexia. Thus the whole attack lasted (as far as could be determined) about thirty-five days, and the interrupting relapse about fourteen days. It is clear that it would be clinically incorrect to describe the case as one of primary typhoid fever lasting thirty-five days. Such instances have a most important bearing on the duration of ordinary typhoid fever, for, whether they are examples of simple relapse or of intercurrent relapse, they teach this lesson—that relapse may prolong inordinately a typhoid attack, and its effects be obscure unless the thermometer is regularly employed. A proper study of relapse may help to explain the extraordinary differences of opinion held as to the duration of typhoid fever; and if once the fact of intercurrent relapse is recognised, such differences become simple of explanation. In this case, again, I would rather suggest than assert, for the uncertainties of typhoid continually remind me that we have much to learn respecting this disease and diseases classified with it.



CASE 17: INTERCURRENT RELAPSE (?) OF TYPHOID (a female, aged sixteen).—Patient was admitted during an attack of typhoid. On the twenty-second day (?) of disease temperature was 99·4° Fahr. At this time relapse occurred; the temperature rose suddenly, and reached on the fifth day 104·2° Fahr. On the eighth day it fell decidedly, but rose again, only to descend rapidly to the subnormal on the fourteenth day of relapse and thirty-fifth of the whole disease, when convalescence commenced. Was the new fever which began on the twenty-second day the result of an intercurrent relapse? (*Vide* text.)

(*To be continued.*)

H.R.H. THE PRINCE OF WALES has graciously consented to be the patron of the Hospital for Women, Soho-square.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

CASE OF TUBERCULAR MENINGITIS IN AN ADULT.

(Under the care of Dr. POLLOCK.)

FOR the following notes we are indebted to Mr. H. C. Rowbotham, Resident Medical Officer:—

C. G., aged twenty-three, a police-constable, admitted into hospital January 23, 1879, died January 31. There were no points in the family or previous history of patient having any bearing upon the present illness.

Present Illness.—During the last six months patient has been "seedy"; he has been dull and moody, and has lost flesh considerably, but has been able to discharge his duties efficiently. Three weeks before admission he began to suffer from headache and pain in the back; but continued at his work until January 14, when he took to bed, and consulted the divisional surgeon. He then complained of severe heavy pain in his head; was drowsy and feverish; retched violently, and vomited three or four times a day; was very thirsty, but had no appetite; was constipated; coughed occasionally, and expectorated frothy mucus, but no blood. After lying in bed for a week he felt better, and got up, but found himself very giddy and weak, so he returned to bed; he became more drowsy, and at times delirious.

Examination on Admission.—January 23: Patient is a well-developed man, but considerably emaciated; has a dull, stupid expression, and seems to be indifferent to everything. He can tell his name, address, and occupation; but can give no intelligible account of his illness, and resents being questioned. His tongue is dry and thickly coated; breath foul. Skin hot and dry; temperature 101°; pulse 60, regular and full (resembles the pulse of compression of the brain); pupils dilated equally; respiration natural. There is slight abdominal tenderness on pressure. No enlargement of the spleen can be detected; there are no spots or rash on any part of surface. The chest is fairly resonant on percussion. Occasional moist râles are heard all over the chest, and bronchial breathing at both apices. He was ordered castor oil and a saline mixture.

24th.—He passed a restless night, but complains of no pain; is more drowsy and indifferent; takes his feeds when given to him, but never asks for anything; the bowels have not acted; he passes a fair amount of urine, of acid reaction, specific gravity 1020, and containing no albumen. Temperature 100·6° Fahr.; pulse 60, full; tongue dry and furred.

25th.—Passed a quieter night, but is no better this morning. There is no change in the symptoms. Bowels are still confined; an enema was administered, but was retained. Temperature 101·2° Fahr. Evening: He is very restless to-night. Temperature 100° Fahr. Enema olei ricini was administered; this was followed by a free evacuation of dark, solid motion.

26th.—Patient slept well during the first part of the night, but on waking became very delirious, and attempted to get out of bed; he vomited several times, and tossed about in his bed incessantly, plucking at the bedclothes and everything around him, and occasionally moaning plaintively. The right pupil is widely, and the left slightly, dilated; there is marked strabismus of both eyes, sometimes internal, and at others external; the pupils do not contract on exposure to strong light. He passed his urine and fæces involuntarily. He appears to know when his name is shouted loudly, and protrudes his tongue when told to do so. The tongue is clean and moist; pulse full, 80; respirations somewhat hurried; temperature 89·8° Fahr. There is exceedingly well-marked *tâche cérébrale*. Evening: Patient remains in much the same state, tossing about and clutching at everything. The pupils are still unequally dilated; pulse 70; temperature 99° Fahr. He was ordered hydrarg. subchlor. gr. v. every night. Midnight: He is very noisy and struggles violently. Morphia gr. ¼ was injected hypodermically.

27th.—Patient slept several hours after the hypodermic injection, and is quieter this morning, but is still unconscious, and is fed with great difficulty. Temperature 99·8° Fahr.; respirations slow and somewhat laboured; bowels

confined. Evening: He is very restless, has a wild expression, and has to be held in bed. Temperature 99·6° Fahr.

28th.—No change in the symptoms. Pulse 60; temperature 97·4° Fahr. At night a hypodermic injection of morphia was administered.

29th.—He was quiet for a short time after the injection, but had no sleep during the whole night. It is almost impossible to get him to swallow. The bowels have been opened freely; the motion is green, loose, and very offensive. Temperature 96·8° Fahr.

30th.—Morning: He continues to toss about and clutch at everything near him; he is profoundly insensible; he grinds his teeth and moans continually; the pupils remain unequally dilated, and there is external strabismus of the right eye; with great difficulty a little milk-and-brandy is poured down his throat. Pulse regular, 100; temperature 98·4° Fahr. Evening: Surface cold, and bathed with clammy sweats. Pulse 100, feeble and irregular; breathing stertorous, slow and laboured.

31st.—His breathing gradually became more laboured, and he died early this morning. The right pupil remained widely dilated until death.

Autopsy.—February 1: Body well developed, but much emaciated; features thin and pinched; well-marked rigor mortis. Brain: There is nothing unusual about the dura mater; the vessels of the pia mater are very hyperæmic. At the base of the brain, in the area enclosed by the circle of Willis, there is a thin pellicle of recent lymph, and a small quantity of serum in the subarachnoid space; there are numerous fine miliary tubercles deposited along the vessels of the circle of Willis, and those extending into the fissure of Sylvius. The lining membrane of the ventricles is hyperæmic. There is no appreciable softening of any part of the cerebral substance. Lungs: The left lung is adherent to the chest-wall, but not very firmly; the right lung is free; there is a small quantity of serum in each pleural cavity, but there are no tubercular deposits on either pleura. The lungs together weigh three pounds and a quarter, they are extensively infiltrated with true miliary tubercles, especially the upper lobes. There are no caseous or catarrhal pneumonic nodules in any part of the lungs. There is no evidence of inflammatory or degenerative change in the bronchial glands. There is nothing unusual in any of the other viscera, and no tubercular deposits on their capsules.

VICTIMS OF DUTY.—The Municipal Council of Paris has just passed a resolution that a legitimate homage should be paid to those who die victims of their devotion to duty; and to this end have carried the proposition that marble commemorative tablets should be placed in the various hospitals and hospices of the city of Paris, upon which are to be inscribed the names of the physicians, surgeons, internes, externes, medical students, and of all other auxiliaries of the Assistance Publique who die victims of their devotion in the exercise of their functions.—*Gaz. Hebd.*, March 14.

THE VENTNOR HOSPITAL FOR CONSUMPTION.—The medical report of the Royal National Hospital for Consumption, at Ventnor, furnished by Dr. Sinclair Coghill, the Physician to the Hospital, and Dr. David Grant, the Resident Medical Officer, for the year 1878, may be considered as satisfactory. Of the 509 in-patients received during the year, 106 were improved, 76 much improved, 150 very much improved, 58 restored to health, and 8 had not been a sufficient time under treatment to justify any opinion; on the other hand, 62 were worse on departure, 36 remained *in statu quo*, and 16 died. Of these latter 4 were from diseases other than those of the chest. The net mortality is therefore given as 12 in 505 cases, or 2·37 per cent. This diminution is probably to be attributed in part to the increased care in the selection of cases, since it is to be borne in mind that the object of the Hospital is only to receive cases either in the incipient stage or in more advanced cases showing tendency to arrest. Nevertheless, a number of cases continue to be sent in an almost moribund condition, many suffering from other mortal diseases than those of the chest, which have either been concealed or overlooked. The income during the past year has been £5896, entirely derived from subscriptions and donations. This amount has been just sufficient to meet the ordinary expenditure, but the balance in hand is so small that the Board of Management solicit increased exertions on the part of all friends of the charity.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, MARCH 22, 1879.

THE PRESIDENT'S ADDRESS.

THE General Medical Council met on Tuesday, the 18th inst., and, it must be admitted, met under somewhat unusual circumstances. The Government has again introduced, and expressed a positive hope of being able to pass, a Medical Act Amendment Bill, and three other Medical Bills, introduced by private members, are before the House of Commons; the Council has to consider the report from the Executive Committee on its own constitution, and to fulfil its promise to report its opinion on the subject to Government; and Government has decided on submitting the question of the revision of the composition of the Council to a Select Committee of the House of Commons. And the profession have, moreover, been wondering why the meeting of the Council was not summoned a month ago. Considering all these things, it seems surprising, to a degree that is quite refreshing, to find the President, in his address at the opening of the session, apologising for calling the Council together so soon. He was of opinion, if we understand him rightly, that it would be best to wait till the Government Bill had left the House of Lords, and had been "completely before the Lower House," before calling the Council together; but he learnt that some who are strongly opposed to the Bill felt that they ought to have the opportunity of attacking the measure in the Upper House, after its discussion by the Council, and therefore he yielded, and "called the Council to this preliminary meeting." The President then shortly describes the Government Bill, and makes brief mention of the private Bills. Next he dwells at more length on the Dentists Act, describes the number of "Dentists" who have been registered under it, and justifies the Act and the connexion of the Medical Council with it. He observes that it would be taking a limited view of the medical profession and of the Medical Council to say that they had better have

nothing to do "with dentists, with midwives, with the licensing of women, or even with diplomas in preventive medicine," and that they had better leave all "specialists" outside the control and beyond the sympathy of the medical corporations on the universities. "But a General Medical Council of Education and Registration," he says, "is not worth the name unless it seeks to maintain a body of persons fit to supply all the just needs of the community in respect of medicine, scientific or practical, preventive or curative." These last words very properly describe the work of the General Medical Council; and it is just because that body has permitted itself to be occupied with other matters, to the neglect or postponement of a most important part of its proper work, that it has been found fault with. Some of the observations we have quoted above, we venture to say, are beside the mark. The medical profession do not object, we should say, to be connected with any branch of "medicine," scientific or practical, preventive or curative; but they do object to having dentists, or practitioners of preventive medicine, or any kind of "specialists," who are not fully educated and qualified medical practitioners, classed with them; and even as regards women, the demand that the profession now make is that they shall be fully educated and qualified before being admitted to the Medical Register. With regard to midwives also, as in respect of the dentists who are not medical men, the great objection to their being "connected with the Medical Council" is that such connexion must absorb a very large proportion of the time and labour of the Council; and so long as the work originally laid upon the Council is so very far from being completed, the objection will appear, to most persons, a very strong and tenable one. The amount of work thrown upon the Council by the Dentists Act already is well known, and the remarks of the President on the work yet to come is the reverse of assuring. Some five thousand dentists have been registered, and if any of these, the President remarks, "have fraudulently returned themselves" to the Registrar "as *bonâ fide* in practice, 'either separately' or 'in conjunction with the practice of medicine, surgery, or pharmacy,'" it will be the duty of the Council "to expunge their names from the Register." The Council will refer alleged cases to a committee of five—who must be members of the Council—and the committee will examine into each case. But each case must be formally submitted to the committee by the Council, and each erasure must be the act of the Council itself. The President may well say that "this may constitute, no doubt, an onerous as well as a serious duty."

Having dealt with these subjects, the President devotes a few lines of his address—about ten—to the subject of inquiry by the Council into its constitution under the Medical Act of 1858, and says that the report of the Executive Committee upon it will be formally presented to the Council. But he does not even hint that it must be discussed at "this preliminary meeting." After a few remarks on other subjects, the address concludes with the expression of a desire "that this year may see the Council relieved from the anxiety of administrative and political details," so that it "may then steadily discharge the more congenial duty of considering how to secure the best education for our medical youth, and how to maintain, by the advancing knowledge of an honourable profession, the health and working power of the nation at large." In this desire all will heartily join. It is what has been desired and hoped for ever since the formation of the Medical Council twenty years ago; and it is because that desire has been frustrated and that hope delayed, that so much disappointment has been felt, and so much fault found with the result of the seven-and-twenty sessions held by the Council.

THE GENERAL MEDICAL COUNCIL.

After the President had delivered his Address, and various business committees had been appointed, a considerable amount of time was lost before the Council began actually to discuss the Government Bill in considering whether it should be discussed. The Lord President of the Council had written stating that he would be glad to receive any observations upon the Government Bill which the Council, after consideration of the measure, might have to make on it; but Mr. Simon moved that the Council should thank the Lord President for sending them the Bill, and state that it had thoroughly discussed the matter last year; and, adhering to the views then expressed, did not think it requisite at this stage of the Bill to submit any new observations. This resolution, seconded by Dr. Rolleston, was denounced as an attempt to stifle discussion, but was supported by Sir William Gull, who took the opportunity of criticising a petition, which had been presented by the Royal College of Surgeons of Edinburgh to the House of Lords, as an opposition to what had been deliberately voted by the Council, and ought therefore to be binding on the minority. Mr. Macnamara and the Rev. Dr. Haughton proposed as an amendment—"That this Council do now go into committee to consider such portions of the Lord President's Bill as differ from his Grace's Bill of last year." This was carried; but then Dr. Humphry and Mr. Teale moved the following amendment:—"That the Council proceed to the consideration of the Lord President's Bill so far as it differs from the recommendations of the Council"; and this was carried and agreed to as a substantive motion, though not without an attempt, by Dr. Quain, to refer the matter to a committee, to prepare the subject for the Council. At last the Council resolved itself into a committee, and then some time was spent in discussing an amendment, proposed by Professor Turner, to Clause 5, relating to registration—the clause proposed, apparently, to indirectly admit women to the Medical Register; but at last Professor Turner withdrew his resolution, in order that the question might be raised more directly. The Rev. Dr. Haughton and Dr. Aquilla Smith next moved a resolution, for which we must refer our readers to our report of the proceedings, condemning the proposal for the formation of a twentieth licence to practise—the Lic. M.S.M.; and affirming that the difficulty of admitting to the Register women who have obtained the qualifying certificate of a board, and failed to get a licence to practise from any medical authority, should be met by a distinct enactment. After a lengthy discussion, showing that many members of the Council considered that the clause objected to had been very carefully drawn, the resolutions were negatived.

A motion to amend Clause 24—the penal clause—so as to forbid the use, by an unqualified person, of the word surgeon, "either alone, or in conjunction with any other word or words," led to some discussion. But it was objected to chiefly as an attempt to amend the Dentists Act, and was negatived; and then the Council resumed.

When the Council again went into committee, on Wednesday, Dr. Quain and Dr. Aquilla Smith moved that the following memorandum on the examination and registration of women be submitted to the Lord President as a substitute for Clause 5 of the Bill:—"Any medical authority or authorities that may think fit (or may otherwise be required) to confer a degree, diploma, or licence on a woman, may request the Examination Board to examine such woman, provided always that, should she pass the examination, she shall not be entitled to *claim* any degree, diploma, or licence other than that which can be conferred by the medical authority or authorities requiring her to be examined. The degree, diploma, or licence thus obtained shall be the

qualification by which a woman will be placed on the Register. There shall be a right of appeal to the Medical Council, with power to provide an examination, if no medical authority be willing to admit women." The motion was, however, rejected.

Dr. Quain was more fortunate with a second resolution, which he proposed to be submitted, with a view of its being substituted for Clauses 7, 8 in the Bill. It certainly would greatly simplify the provisions for the registration of colonial and foreign practitioners. The resolution was seconded by Dr. Pettigrew, and runs thus:—"That, with the consent and approval of the General Medical Council, any of the medical authorities may confer, without examination, on a colonial subject or on a foreigner, a degree, diploma, or licence entitling him to be registered, provided that the medical authority has received such evidence as to character, professional education, and examination as would be deemed sufficient as a qualification for the like degree, diploma, or licence in the case of a person not a colonial subject or a foreigner. There shall be a right of appeal to the Medical Council if no medical authority consent to admit such colonial subject or foreigner. It was carried by twelve votes to seven, five of the members declining to vote.

A letter to the Lord President, urging the claims of qualified and registered practitioners to have foreign degrees held by them registered as additional qualifications, was sent by his Grace to the Council; and, on motion made by Sir James Paget and Sir William Gull, it was resolved to refer his Grace to an opinion of the Council, adverse to the claim of the Foreign Graduates' Association, reported to his Grace last year.

After a prolonged discussion, a long amendment, moved by Dr. Humphry and seconded by Sir James Paget, was agreed to in order to correct an apparent oversight in the drawing of Clause 10, Sub-clause 7, providing for the registration of higher medical diplomas.

The Committee then entered on the consideration of an amendment in Clause 15, having for its object to provide that examination fees, as well as curriculum of education, and examinations, shall, as nearly as possible, be equal in each division of the kingdom; but the discussion was adjourned.

THE CONSTITUTION OF THE GENERAL MEDICAL COUNCIL.

The Report of the Executive Committee of the General Medical Council on the constitution and working of the Council has now been published in the Minutes of the Council. It forms altogether a document of formidable bulk, but a very large part consists of appendices containing a variety of documents in regard to the subjects considered by the Committee. The Report itself deals first with the present constitution of the Council, treating it historically, pointing out that its electoral basis embraces the profession at large, and giving evidence that it has shown itself both able and willing to discharge all its duties in a manner satisfactory to successive Governments, who have added from time to time to its duties, and have declined hitherto to accede to proposals for making changes in its constitution.

The Committee next examine the work of the Council and state its action:—

1. In the formation and publication of the Medical Register, and its maintenance with care and accuracy.

2. In the publication of a National Pharmacopœia, which has been accepted throughout the United Kingdom and the British Possessions as a great improvement on any of its predecessors.

3. In the result attained, by visitations of examinations, of a decided improvement in the examinations, especially in their practical character, and the approximation of them to a more uniform standard.

4. In the giving sanction and direction to the union of authorities in conducting examinations. The Committee show that "the steps which have been taken in this direction have therefore been in consequence of the action of the Council; and the fact that greater progress has not been made is not to be attributed to the Council, but to those who have impeded the passage through Parliament of Acts framed in conformity with the advice of the Council."

5. In the supervision of medical education. They point out that the influence of the Council with reference to examinations and courses of study has been by virtue of advice and recommendations rather than by legal power; and that they have, nevertheless, been able to exercise an influence on the constant improvement in medical education, which would not have been possible under a constitution in which the examining bodies were not represented on the Council.

6. In the judicial power of the Council. The Committee here observe that it can scarcely be supposed that there would have been entrusted to the Council such a power as it possesses in this respect—"a power, be it remarked, from which there is no appeal,—unless its constitution had been thoroughly considered, and unless the Government had felt sufficient security for the careful selection of those who would have to exercise this power."

7. In the carrying out of the Dentists Act. With regard to this the Committee are of opinion "that the Council is quite adequate for the performance of these additional duties, and, moreover, that it is not desirable that representatives of dentistry, or of any special branches of medicine or surgery, as such, should be added to the Council."

8. As to "other duties of the Council," the Committee observe that too much time has often been occupied in the discussion of questions, but that this must happen, more or less, in all deliberative assemblies; and they think that matters would not be improved by any marked diminution in the number of the members of the Council. They make also some remarks on the advantage of referring certain business to committees; and on the duties of the members and of the President.

The Report next deals with the changes (if any) desirable in the constitution of the Council, by which it might be rendered more efficient for the duties which it has, or will have, to discharge. They think that any diminution of, or increase in, the number of members is alike undesirable. They object to any extension of the principle of combining two or more bodies in representation; and they see great difficulties in the way of any disfranchisement of any of the authorities. They consider any interference with the mode of appointment of members of the Council by the several authorities to be questionable. They object to "direct representation," and point out why it is, in their opinion, very unlikely to secure the election of persons best suited for the special duties of the Council. And finally they are, "after a careful and deliberate consideration of the whole subject, of opinion that a change in the constitution of the Council is not necessary for present duties, nor for other legitimate duties that can justly be considered as directly connected with medical education and registration."

The Committee then consider the view, maintained by some, that the Council ought to undertake other and much larger duties than any yet assigned to it, and advise the Council not to seek to undertake such duties. Finally they say that, should it seem expedient to grant the desire that persons should be selected to represent exclusively the

general body of registered practitioners, they suggest that the best way of accomplishing this object would be to increase the number of Crown nominees by four—two such additional members to be nominated for England, one for Scotland, and one for Ireland.

A memorandum by Dr. Pitman and Sir James Paget is added, objecting to the issue of any report by the Executive Committee, and expressing the opinion that the Government, having announced that they will institute an inquiry into the subject of the composition of the Council, "the Executive Committee, instead of issuing either their own or any other opinions on the constitution and working of the Council, should have recommended the Council to wait for the Government inquiry."

In a second memorandum Dr. Quain expresses the opinion that the Report, prepared in obedience to the direction of the Council, could not be withheld without the express consent of the Council; dissents entirely from the last paragraph of the Report, relating to the appointment of additional Crown nominees to represent the general body of registered practitioners; and states that, in his opinion, it would have been more judicious to conclude the Report with the recommendation proposed by Dr. Pitman and Sir James Paget in their memorandum.

We must be content this week to simply place the gist of the Report thus before our readers without any comment on the decisions come to by the Executive Committee.

THE WEEK.

TOPICS OF THE DAY.

As a protest against the numerous misstatements which have appeared of late in several organs of the press, both in this country and on the Continent, on the subject of vivisection, a collective declaration has been signed and published by the medical faculties of the principal universities of Switzerland, Germany, Austria, and Russia, which is as follows:—"In the cause of free inquiry, calculated to benefit humanity, and at the same time both for the purpose of repelling attacks, whether avowed or secret, and in order to set public opinion right, the Medical Faculties of the undermentioned Universities find themselves under the necessity of making the following declaration:—1. By vivisection is meant an experiment upon a living animal, undertaken for scientific purposes, and in the performance of which it is impossible to avoid wounding the animal slightly, severely, or it may be mortally, according to circumstances. 2. These vivisections form an indispensable means of physiological and pathological investigation, and there is no part of the healing art which has not derived benefit from them, and which may not expect to derive further benefit from them. Our knowledge of the circulation of the blood, of the functions of the nervous system, of digestion, and the change of form in matter, of the healing of wounds, and of the effect of drugs, depends for the most part upon experiments on animals. The inquiry into the essential nature of diseases, likewise, cannot dispense with the aid of vivisection. 3. The physiological and pathological institutions, against which, in the first place, attacks have been directed because vivisections take place in them, are State establishments, in which, in addition to other instruments of instruction and research, the technical apparatus for vivisections have also been provided by the State. 4. How far it may be admissible in vivisections to dispense with chloroform and similar agents cannot be settled by prescribed directions, but must be left to the discretion of the experimenters. The vivisections which take place in our institutions are performed under the full responsibility of the boards authorised by the State to preside over them, and there is, accordingly, every guarantee against the abuse of vivisection.—March, 1879." The Medical Faculties of the Universities of Basel, Berne, Bonn, Dorpat, Erlangen, Freiburg, Gratz, Greifswald, Halle, Heidelberg, Kiel, Königsberg, Leipzig, Marburg, Prague, Vienna, and Zurich.

The question of the legality of cremation in this country will possibly be shortly determined, since the Earl of Onslow has given notice that he intends to call the attention of the House of Lords to the association called "The Cremation Society of England," and to ask her Majesty's Government whether the practice of cremation is in accordance with the laws of this country; and, if so, whether they contemplate taking any steps to regulate the disposal of dead bodies at the crematorium now in course of construction at Woking.

A most nefarious trade has for some time past been carried on at Liverpool in the shape of a wholesale importation of diseased sheep from Ireland. The animals are designated "rotten sheep," and are, when landed, in the last stage of disease of the liver, and affected with dropsy. Very little of the meat is fit for human food, and every device is adopted to escape the vigilance of the officers of health. Sausages and highly seasoned meat pies are the chief forms in which the meat finds its way to the public, under which disguises the unpleasant odour and taste are concealed. Large seizures of sheep of this description have recently been made by the health officers, and the meat has been inspected by Dr. Stopford Taylor, the Medical Officer of the borough, assisted by a jury of butchers, and in every case has been condemned and destroyed. A large consignment of codfish and ling, from Hull, has also recently been seized, and found on examination to be utterly unfit for human consumption.

The Hertford Town Council, after trying unsuccessfully several schemes for purifying and utilising the sewage of the town, adopted the precipitating process of the Rivers Purification Association, whose work on the Sherborne River, near Coventry, has met with so much approval. After a full trial, the Town Council has determined to renew the contract, and, according to previous provision, has doubled the subsidy originally paid. The process is said to produce a very clear effluent liquid, and in the last process the sewage matter is compressed into solid slabs ready for the use of farmers and others.

That there must be certain drawbacks consequent upon an accumulation of four millions of inhabitants in one city is evident, but that the enormous tax of 1159 lives should be levied in ten years from "street accidents" only, is a fact almost incredible. Lord Templetown recently moved in Parliament for a return of the number of accidents which occurred in the streets of the metropolis during the last ten years, the circumstances under which each occurred, with its issue and result. The outcome of this inquiry is that 1159 lives are reported to have been sacrificed in the London streets for the ten years ended December 31, 1877, whilst the number of injuries during the same period is returned as 23,379. It would be ridiculous to assume that the whole of these casualties were unpreventable; and it is equally absurd to place a large portion of the blame on the police. The case of the deceased Mr. Oakeshott shows that the jury who tried the man who caused his death were nearly the only persons in court who did not believe that the accident was the result of careless and reckless driving; and so long as this leniency is shown in our criminal courts it is hopeless to expect an increase of caution on the part of drivers in London. Yet the evil is sufficiently grave to enlist the exertions of some of our legislators to bring about its redress.

In the House of Commons, the Chairman of Ways and Means has proposed that the Select Committee on the

Liverpool Lighting Bill shall consist of Lord Lindsay, Mr. Adam, Sir U. Kay-Shuttleworth, and Mr. Spencer Stanhope, with three members to be appointed by the Committee of Selection. The committee of seven thus constituted will inquire, having reference in particular to the Liverpool Lighting Bill, but generally also in the contemplation of all the private Bills of the session asking for powers of a similar nature, "whether it is desirable to authorise any schemes for lighting by electricity or other improved methods," and "how far, and under what conditions, if at all, the use of such modes of lighting should be sanctioned by Parliament in the case of municipal corporations, other local authorities, or public companies."

The new board of delegates for carrying out the Hospital Saturday movement in the metropolis, held their first meeting for the present year on the 8th inst., at the Royal London Ophthalmic Hospital, Moorfields, Mr. Hamilton N. Hoare presiding. The business transacted was of a routine character, seventy-three delegates, representing between 14,000 and 15,000 working-men, being approved. A letter was read from Mr. John Hughes, the late chairman of the Council, resigning that post on the score of ill-health, and, after a vote of thanks to this gentleman had been proposed and unanimously carried, he was elected a Vice-President. Mr. Samuel Morley was re-elected as President, and the Chairman congratulated the supporters of the Fund upon the pecuniary and social position it now held, which he characterised as most satisfactory.

The law's delays have come to be so well known as an unalterable grievance that it is almost waste of time to call attention to them, yet it does seem surprising that, after the prompt action which followed the passing of the Artisans' and Labourers' Dwelling Act, so little progress has been made in bringing about an improved state of affairs. A local journal recently called attention to the disgraceful condition of several localities in the Holborn district, and the account of one house in Baldwin's-gardens, visited by a member of its staff, is so revolting that, if not exaggerated, it is inconceivable how such a plague-spot can be permitted to exist in the heart of London. It is stated that the sink in the back yard was blocked up, and the closet choked, the water-supply for over thirty persons inhabiting this tenement being drawn from a cistern over the closet; the dust and filth not having been removed from the yard for four months. In the first floor the rain was found to be coming through the ceiling from the roof two floors above. If this be really the condition of the tenements in Baldwin's-gardens, what are the sanitary authorities of the district about?

From some cause—perhaps the efforts of the champions of temperance, or more likely the want of money—the annual returns for the past year again show a decrease in the quantity of spirits on which duty is paid for consumption in the United Kingdom. The quantity of home-made spirits paying duty for consumption as beverage was 529,461 gallons less, and the quantity of foreign spirits paying duty for home consumption was 179,927 gallons less than in the preceding year. It is also worthy of notice that in both classes the corresponding returns for the year 1877 showed a marked decrease when compared with the preceding annual period.

In accordance with the recommendation of Professor W. H. Corfield, who has recently investigated and reported upon the sanitary condition of the borough and harbour of Weymouth, the Corporation have determined to divert the whole of the sewage from the harbour, and take it out direct to the sea.

THE ROYAL COLLEGE OF PHYSICIANS.

At an extraordinary meeting of the Royal College of Physicians of London, held on Thursday, the 13th inst., the President informed the Fellows that he had had several communications with the Lord President of the Council on the subject of the Medical Commission to investigate the nature of the plague in Russia, and that Government had appointed Surgeon-Major Colvill, of the Bombay Army, and lately resident at Bagdad, and Dr. J. Frank Payne, medical commissioners for that purpose, at an honorarium of five guineas a day each, the minimum honorarium to be 400 guineas, and all expenses of every kind to be borne by the Government.

Dr. Barclay was appointed a representative of the College on the Committee of Reference, in the place of Dr. Pitman, who had resigned that office.

The College had before them for consideration the Report to the Co-operating Medical Authorities by the Committee of Reference on the Conjoint Examination in England. The Report was taken as read, and motion was made that Part I., which contains the proposed regulations relating to the professional education and examination of candidates, be approved and adopted. To this the following amendment was proposed and seconded:—"That the scheme be not agreed to, as, in the opinion of the College, not less than six months of lectures and six months of clinical study should be devoted to the subjects of Midwifery and the Diseases of Women"; the regulation in the scheme requiring only that proof be given by a candidate "of having attended a course of lectures on Midwifery and Diseases peculiar to Women during not less than three months," and a note being added that "instruction in the use of obstetrical instruments must be included in this course," and that a certificate must be produced of attendance on not less than twenty labours.

After a long discussion the amendment was negatived, and Part I. was adopted. The consideration of Parts II. and III. of the Report was then adjourned till Saturday, the 15th inst. We believe that many of the Fellows sympathised with the objection to the proposed regulation as being insufficient, but that it was felt that the amendment went too far in the opposite direction; and we imagine that an amendment requiring three months' clinical study, in addition to a course of lectures of not less than three months, would have had a better chance of being carried. On Saturday, Parts II. and III. of the Report, which contain the proposed regulations relating to examiners, and the conduct of examinations, and to the payment of examiners and other expenses of examinations, were also adopted without alteration.

ROYAL COLLEGE OF SURGEONS.

At the meeting of the Council of the Royal College of Surgeons, England, held on Thursday last week, the Report by the Committee of Reference to the Co-operating Medical Authorities on the Regulations for Conjoint Examinations in England, was presented; but, as was last week stated would most probably be the case, its consideration was deferred until the fate of the new Medical Bill is decided. Sir James Paget's motion, relating to the payment by rejected candidates of such fee for re-examination as will cover the expenses of re-examination, was referred to the Committee on the By-laws. Mr. Hancock was given permission to withdraw his motion for a committee to consider the institution of examinations in chemistry, materia medica, and pharmacy, and in midwifery, until the Medical Bill before Parliament is settled. The President of the College, we understand, directed the attention of the Council to the fact that the Government had decided to propose that the ques-

tion of the revision of the constitution of the Medical Council shall be considered by a Select Committee of the House of Commons. He also pointed out the vagueness and possible danger of the Medical Bill as to the supply of funds for the support of the College Museum, and suggested the limitation of the employment of surplus funds to the support of existing museums and libraries. The President was authorised, we believe, to communicate with the Lord President on the subject.

THE PREVENTION OF RELAPSES IN TYPHOID FEVER.

Dr. Pearson Irvine has lately been supplying us with valuable information on the temperature of the relapses of typhoid fever. A further contribution to the subject of these relapses, which is of great practical importance, is that of Dr. H. Immermann of Basle (*Correspondens Blatt für schweis. Aerste*, October, 1878), in which he shows that we are, to a certain extent, able to prevent these by the internal administration of salicylate of soda. His observations were made in the Basle Hospital, into whose wards about 1200 cases of typhoid fever have been admitted from 1872 to 1877. Of these from 12 to 19 per cent relapsed—curiously enough, nearly double as many as under the old system of treatment, before cold baths were introduced systematically. The relapses could not have been due to errors in diet, as attention has been paid to this point during convalescence for many years. They could not have been caused by a reinfection in the Hospital, for in 1877, out of a total of 4000 in-patients of all kinds, only eleven caught fever in the Hospital, whereas in 265 convalescents from typhoid there were *fifty-nine* relapses. Hence it seems probable that the relapses must be traced to the action of a residuum of typhoid poison in the bowel of the patients themselves, by which, after a time, they become re-infected. If this theory be correct, the obvious inference is, as Immermann says, that we should systematically disinfect the body of a typhoid convalescent. Following out this reasoning, Immermann treated twenty-two such convalescents with four to six grammes of salicylate of soda for ten or twelve days from the first day of normal temperature. Of these patients, only one relapsed on the seventh day of the apyretic period, owing to neglect of attention to diet. In 1878, twenty-nine other male and female patients were similarly treated, and only one, which had begun the salicylate four days too late, relapsed; whereas of sixty-seven other convalescents who took no salicylate, fifteen relapsed. It was also found that many more relapses occurred under simple hydropathic treatment than when cold baths were combined with quinine or salicylic acid, the numbers being 20·3 and 15·8 per cent. respectively. These facts tend to prove that not only convalescents from typhoid fever, but also healthy persons exposed to the contagion of typhoid, should be treated with salicylate of soda. One reflection forces itself on us, apart from the relapses of typhoid fever, on reading Immermann's paper—namely, that the sanitary condition of Basle must be very far from what it should be, to supply such a number of cases. From what we hear, typhoid fever is endemic in Geneva too, though neither town is so placed as to be difficult of drainage. Our countrymen and women visit both in shoals during every summer, and we should be glad to know that a little of the energy which has been hitherto devoted to the study of typhoid relapses had been utilised in taking measures to eradicate the primary disease altogether.

HEALTH LECTURES FOR THE PEOPLE.

The second series of Health Lectures for the People are now in course of delivery at Manchester, and are published by the authority of the Manchester and Salford Sanitary Association. The first series comprised thirteen addresses by members of the medical profession; the second series is to consist of eight. Of the latter, "The Prevalence of Consumption in Large Towns, and how to diminish it," by Dr. Dreschfeld, Lecturer on Pathology at Owens College; "Long Life, and the Causes that prevent it," by Dr. Arthur Ransome, Lecturer on Hygiene at Owens College; and "How the Body may be influenced by the Mind in Sickness and Health," by Dr. Henry Simpson, Physician to the Manchester Royal Infirmary, have already been delivered. Among the lecturers who are to follow will be found the names of Dr. Hilgate Owen, Mr. J. M. Fox, Dr. Irwin, Dr. Watts, etc. The different subjects are treated from a non-professional point of view, and whilst keeping steadily to the matters under discussion, the lecturers succeed in imparting a large amount of useful information in an interesting form—the great secret of the art of compelling the attention of the general public.

THE SANITARY CONDITION OF PLYMOUTH.

The report of Dr. Blaxall to the Local Government Board, on the sanitary condition of the town of Plymouth, has recently been made public, and exhibits a condition of affairs which can only be set down as eminently unsatisfactory. The present inquiry was undertaken in compliance with a numerously signed memorial put forward by the inhabitants, consequent upon an epidemic of diphtheria; but the authorities of the town should certainly be reminded that inquiries are of no use unless the recommendations they elicit are carried into effect. In proof of this it is stated that in 1853 a comprehensive inquiry into the general sanitary circumstances of the town was made by Mr. Rawlinson, C.B., for the General Board of Health; and, since the constitution of the Local Government Board, inquiries have been held, in 1872 with reference to an epidemic of diphtheria, and in 1873 with regard to certain drainage nuisances. Yet the Registrar-General's returns show that the general death-rate of Plymouth is higher than that of the country generally, that the mortality amongst infants and children under five years of age is especially great, notably from diarrhœa and infectious complaints; that the town is subject to frequent visitation of epidemic disease, and that diphtheria is annually present and manifests a decided increase. Mr. Blaxall fully accounts for this preventable condition of things, since he closes his report by saying—"The sanitary circumstances of the town, as revealed by my recent inspection, and fully set forth in this report, are conclusive evidence of the want of efficient sanitary administration, and of the failure on the part of the Sanitary Authority to recognise or appreciate the responsible duties imposed upon them by the Legislature. Thus the various provisions of the Public Health Act of 1875, designed to secure to the people wholesome dwellings, efficient sewerage and drainage, and freedom from excremental refuse, and other nuisances, have been flagrantly disregarded. The by-laws relating to the proper keeping of slaughter-houses and lodging-houses have been suffered to be grossly infringed, and no action has been taken under the Bakehouse Regulation Act, or the Sale of Food and Drugs Act. I cannot too earnestly impress upon the Sanitary Authority the grave responsibility which devolves upon them to undertake comprehensive measures for the remedying of the several sanitary evils which, the burden of this report goes to prove, have materially contributed to the sickness and mortality which have characterised this town." His recommendations are numerous, comprising arrangements for an efficient system of sewerage for the whole district, and a better protection of the water-supply in its course from the weir head of the river Meavy to the reservoir at Knackeraknowle, along which distance it runs

in an open leat; with suggestions on the subject of excrement removal, refuse removal, the keeping of animals, and the condition of slaughter-houses and lodging-houses. Mr. Blaxall also strongly advises the building of the proposed infectious hospital on the site already approved by the Local Government Board inspectors, in preference to the contemplated arrangement for purchasing the building about to be vacated by the South Devon and Cornwall Hospital, as the sanitary condition of the latter is matter of grave suspicion. Finally it is suggested that the Medical Officer of Health should receive a remuneration sufficient to enable him to place a large portion of his time at the disposal of the Sanitary Authority, as he should be instructed to make a thorough and systematic inspection of the district, with a view to remedying the numerous sanitary defects now existing. In the face of this plain statement of neglect of duty on the part of the Plymouth Sanitary Authority, it is to be hoped that such pressure will be brought to bear as may induce them to set about putting their town into a healthy condition at once.

THE EXCRETION OF IRON.

Hamburger has lately found by experiments on dogs (*Zeitschrift für Phys. Chemie*, ii., 191) that under normal conditions the amount of iron which leaves the body in the urine and fæces is almost identical with that given with the food, provided this quantity be comparatively small (150 to 176·5 milligrammes in thirteen days), but that if iron be given in excess (600 to 800 milligrammes during the same period), a small portion (22 to 27 milligrammes in the above experiments) is retained in the system. This fact need not, however, surprise us, when we consider that iron is a constituent of various organs and secretions of the body. The interesting point is that the bulk of the iron is excreted not by the urine, but by the bowel. Thus of 608·4 milligrammes excreted in thirteen days, only 12 milligrammes passed out by the urine. Moreover, it appears that the excess of iron in the urine is not excreted merely as an iron salt, but in the form of an organic body containing iron, for the metal cannot be detected by the ordinary tests, such as ammonium sulphide. Hamburger believes that the iron in the fæces is partly excreted by the mucous surface of the bowel. Part, no doubt, we may add, is merely the unabsorbed salt converted into sulphide, but a good deal is certainly derived from the bile, and primarily from decomposed hæmatin (Young, Hoppe-Seyler, Jaffe, and others), as well as from the pancreatic juice. It is important to keep in mind the fact of the very large excretion of iron in the bile—which Nothnagel estimates at 0·0408 gramme per diem for an adult man—for forgetfulness or ignorance of it has led some persons to deny that any material amount is absorbed at all by the stomach and intestine.

THE LORD PRESIDENT'S MEDICAL ACT AMENDMENT BILL.

His Grace the Duke of Richmond and Gordon, K.G., received a deputation from the King and Queen's College of Physicians in Ireland, at the Privy Council Office, at 3 p.m. on Friday, the 14th inst. The deputation consisted of the following Fellows of the College, viz.:—Drs. Lyons, Grimshaw, J. W. Moore, and Finney (Registrar); the President of the College being unavoidably absent. The views of the College were impressed upon the Duke by the members of the deputation, and his Grace discussed them thoroughly, promising that the various amendments proposed by the College should receive his most attentive consideration. He also stated that his Bill would not be proceeded with until the Select Committee of the House of Commons, about to be appointed to inquire into the constitution of the General Medical Council, shall have made their report. The principal points in relation to the Bill which the College deputation impressed on his Grace's attention are as follows:—1. The measure contains no provision for the reform of the General Medical Council. 2. The qualifying certificate to be granted by the proposed Conjoint Examining Boards should not of itself entitle its holder to be placed on the Medical Register. 3. Absolute uniformity in examination rules, as regards curriculum of study, subjects of examination, standard for passing, and fees payable for the qualifying certificate, is not provided for in the Bill. 4. The General Medical Council should not possess a veto as to the application of the surplus funds after payment of the expenses of the joint examination. 5. Unregistered persons practising *for gain* should be liable to a penalty. 6. Registration of midwives should not be dealt with in a Medical Bill. 7. The General Medical Council should not be empowered to delegate their functions in relation to the framing of examination rules, erasing of names from the Medical Register, etc. On Saturday, the 15th inst., the deputation had interviews with the Marquis of Ripon and with Lords Carlingford and Emly. The last-named peer agreed to place certain amendments proposed by the College on the notice-paper of the House of Lords.

THE PROPERTIES OF HUMAN INTESTINAL JUICE.

An unsuccessful herniotomy, which led to a fistula that divided the bowel near the junction of small and large intestine into two distinct portions, has enabled Dr. Demant of St. Petersburg to make some experiments with pure intestinal secretion, collected from the large intestine between the fistula and the an . His results have been communicated as a preliminary notice to the *Centralblatt Med. Wiss.*, No. 7, 1879, page 115, and are as follows:—1. Human intestinal juice is a clear, thin liquid of a strong alkaline reaction. 2. The total quantity secreted is not large. The secretion is increased during digestion, but during the night is almost arrested. It is not affected in any way by purgatives (Carlsbad salts, etc.). 3. It does not contain any ferment capable of digesting albumen; and has no action whatever on any kind of protein. 4. It converts starch into grape-sugar, and also changes cane into grape-sugar, but leaves inulin (which has been recommended for diabetic patients instead of bread) unaltered. 5. It emulsifies fats containing *free* fatty acids, but not neutral fats in which those acids are combined with glycerine.

THE HEALTH OF HASTINGS.

Mr. Charles Ashenden, Medical Officer of Health for the borough of Hastings, in his summary for the year 1878 shows that the birth-rate for the district during that period was 27·25 per 1000, as against 27 in 1877; and the death-rate (including the deaths of 99 visitors) 16·79 per 1000, as against 15·5 in 1877, and 16·08 in 1876. The mortality amongst children under five years of age was one-third of the total deaths from all causes, and 136 were of infants under twelve months old. Mr. Ashenden is of opinion that a large number of these lives might be annually saved if more discretion and knowledge, in the feeding of children which are obliged to be brought up by hand, were shown by those in charge of them, and he suggests that a few philanthropic ladies, with the ability to impart the necessary knowledge to the poorer classes, might do much good by devoting a few hours to such a laudable work. There was an unusual number of deaths from the seven principal zymotic diseases during the year, whooping-cough being credited with no less than twenty-six; this is the largest number recorded since 1874, when the deaths resulting from it were thirty-two. No death is attributed to small-pox, and only three to diphtheria. Fever claimed nineteen victims; but Mr. Ashenden remarks that, owing to the courtesy and public spirit of the medical practitioners, and the local registrars of the district,

he has been kept well informed of any cases and deaths from preventable diseases. In a recent outbreak of fever, however, the information was not given until a fortnight after the first case had occurred, whereas prompt communication might have materially modified the results, seeing that as soon as the outbreak was discovered, immediate action had the desired effect of checking it.

THE YELLOW FEVER.

THE Committee of Congress on Epidemic Diseases has (the *Boston Med. Journal*, February 29, states) reported a joint resolution authorising the appointment of a commission to visit Havana and to institute a scientific investigation into the causes of the prevalence of the disease at that port. The commission is to consist of "experts," one of whom is to be learned in medical science, one a microscopist, and one a sanitary engineer, and all eminent for their scientific attainments. The President is requested to invite the co-operation of the Spanish Government. The commission is also to visit such other places as the Committee of Congress shall direct. The *Journal* thinks that this is the most judicious step that has as yet been taken towards securing a correct knowledge of the causes that influence the origin and spread of yellow fever. The disease can be studied to much greater advantage in Havana, or other places where it prevails endemically, than is possible during the state of alarm and uncertainty that necessarily influences the correctness of diagnosis and observation during its epidemic prevalence. It is of opinion, however, seeing the risk of death or sickness, that the medical experts should not be less than three in number, and that better remuneration than the proposed ten dollars a day should be given. The most serious defect, however, is placing the appointment of the experts in the hands of the Committee of Congress, in place of confiding it to the President, who has much better opportunities of informing himself of the qualifications of the candidates for the appointments.

RELAPSING FEVER AT BERLIN.

THE *Berliner Klin. Wochenschrift*, March 3, 1879, reports three cases of relapsing fever in the wards of Professor Leyden at the Charité Hospital, Berlin, all occurring in strangers to Berlin arriving from different towns of Germany. The disease must have been caught in Berlin itself, probably at the Refuge where the new-comers passed the night, and, as the dates of their arrival and of the onset of the fever are known, the period of incubation can be fixed at not more than eight days. The symptoms were of the usual character, and in each Obermeyer's spirilla were found in the blood during the febrile period.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following are a part of the regulations respecting education and examination in vaccination, adopted by the Council of the College on Thursday, March 13:—Any public vaccinator, holding office under the Local Government Board for Ireland, may be recognised by the Council as entitled to grant the certificate recognised for the letters testimonial of the College, if he shall produce such evidence as shall satisfy the Council—(*a*) that the number of vaccinations performed by him at his dispensary are sufficient for the instruction of students; (*b*) that he has made special arrangements for the instruction of students upon, at least, two days in each week during the period covered by the certificate. The instruction shall include—1. The performance of the operation of vaccination; 2. The conditions of the patient which contra-indicate vaccination; 3. The characteristic appearances of the true vaccine disease at the different stages of its course, and the deviations therefrom which are compatible with its protective influence; 4. The taking of lymph, and the method of preserving it in tubes or on points; and of recognising impurities. We are surprised and disappointed at the retrograde step taken by the Council of the College in rescinding by a narrow majority the rule some time previously adopted, whereby all candidates for the dental diploma of the College were required to be licentiates in surgery. The consequence of this unfortunate change of opinion is that two of the three dentist examiners for the dental diploma have resigned their examinerships—we think, rightly.

FROM ABROAD.

THE PLAGUE.

THE following are some extracts from a communication to the *Gazette Hebdomadaire*, March 14, made by Dr. Mahé, the French sanitary delegate of the International Council of Health at Constantinople, with the view of calming what he regards as the very exaggerated fears which have arisen respecting the outbreak of the plague in Astracan. The daily press and the telegraph, he observes, have been a chief cause of the panic that has been produced, and it should be a function of the medical press to reduce things to their proper limits. The true bubonic plague had by many been erroneously supposed to have become extinct in the East, when in 1858 the explosion in the province of Benghazi again aroused attention to the subject. Since then, sudden and often redoubtable outbreaks have been relatively numerous.

What are the chances, he asks, which Europe, or even Turkey alone, runs of becoming invaded by the scourge which has appeared in Astracan. If, as would seem to be the case from the last official despatches of the Russian Government, the disease is decidedly enclosed within the boundaries of the sanitary *cordons*, we may reasonably conclude that it will be limited to the locality and terminate by becoming extinguished there—at least, for the present. For, undoubtedly, the approach of the spring gives rise to fears of the recrudescence of the disease, to which this season appears so favourable. But the great heats of Astracan will operate in the contrary direction.

But what are the channels of propagation natural to this scourge? Certainly not the impassable deserts of the Calmucks interposed between the Volga and the Black Sea and the Sea of Azof. Without doubt it is by the railway, of which Tsaritsen is the terminus, that the disease can gain entrance to the rest of Russia, on the side of Moscow and Sarratow. This railway stops at Katastch on the Don; and this fluvial artery, together with the great road that runs beside it, could alone carry the plague towards the important towns of Rostow and Taganrow, on the shores of the Sea of Azof. As to the importation by Odessa, that would be very difficult, for there is no direct route running from east to west in the southern portion of Russia. Neither is it probable that the Volga plague could take the Transcaucasian route, barred as its passage would be by the Caucasian wall; and by the Caspian the passage is too long and difficult to allow of the extremity of the Black Sea being easily reached.

Thus, there are few or no probabilities of an incursion of the plague into the territories forming part of Turkey. Moreover, at Constantinople effectual measures have been taken to prevent any such importation into Ottoman territory. "This is a summary account of the chief of these. There has now existed in Constantinople for a long time an 'International Council of Health,' consisting of Turkish functionaries and European physicians, and in which each European Power is represented by special delegates of whom several are physicians. I have the honour to represent the French Embassy in this Council. It is charged with the application of the regulations of the general sanitary police of the empire—regulations which have been elaborated by commissions and by international sanitary conferences. It

watches over the execution of the measures that are taken, and the operations of the sanitary administration throughout Turkey. The surveillance and prophylaxis of epidemics is one of its principal attributes; and it has under its direction numerous sanitary medical officers belonging to the administration who are distributed among the ports and principal towns of Turkey."

As soon as the news of the outbreak in Astracan had been received, the Council put all the numerous officials it has at its command into active operation; and Dr. Mahé gives details (for which we have not space) of the measures which were taken for the protection of the country from any invasion of the plague, and which he regards as completely efficacious—sanitary medical officers having been despatched to every susceptible locality, and a delegate, Dr. Cabiadès, familiar with the plague as seen in Mesopotamia, repairing to Astracan. All the rumours of plague having appeared in the Ottoman Empire, Dr. Mahé declares to be absolutely groundless; all that has been found, on medical inspection being directed to the alleged localities, has been certain small centres of typhus or typhoid fever—diseases which were imported last year by the refugees from Roumelia. The public health in Constantinople itself is at the present time as good, and even better, than that of some of the great cities of France.

"Whence, then, has arisen this panic which has really maddened Europe?" It cannot be from the existence of the plague in the Levant or Turkey, for not a trace exists beyond the province of Astracan. Is it from the chances of the propagation of the disease towards the Danubian Provinces, Constantinople, or the Russian armies in Roumelia or Bulgaria? But Roumania and Turkey, as well as Russia, keep careful watch in these directions. It is more probable that the public —even the enlightened portion of this, including even the medical public—has believed in the invasion of a new disease, or one which had been believed to be for ever extinct. It is of importance that it should be understood that this is not the case, and that, in fact, we have to do with, in Astracan, only one of the numerous explosions of Caucasian or Kurdistan plague, of which many examples have been observed. From Persian Kurdistan to Tiflis, the Russian capital of the Transcaucasus is not far; and although Tiflis communicates by a railway with the Black Sea at Poti, the plague has never advanced by this channel towards Europe for more than twenty years. Moreover, the Constantinople Council will always be on its guard; and even when the panic has passed away, and Europe has recovered its calm on the cessation of this Astracan epidemic, it will still continue to keep a watchful eye on suspected localities—Astracan, the Caucasus, Kurdistan, Mesopotamia, and Persia. Doubtless Europe has been alarmed, in consequence of the medical hesitation and premeditated reticence of the physicians, at this epidemic of Astracan, which so singularly recall the unfortunate embarrassments and contradictions of the old observers of the epidemics of Marseilles and Italy, so severely stigmatised by Manzoni. The European Medical Commissions of the present day will know how to observe and to speak. Let us hope that Europe, and especially France, will return to a frame of mind more in accordance with the actual state of things when the truth becomes known, for fear is a disease of which we must cure ourselves according to the old adage, "*Medice, cura teipsum.*"

Complete Anuria from Renal Calculi.

At a meeting of the Société Médicale des Hopitaux (*Gaz. Hebd.*, February 28) M. Tenneson related the case of a patient who came under his care after anuria had persisted for ten days. There was no general disturbance, the bladder was empty, and careful examination detected nothing abnormal in the lumbar region. After a while, vomiting, œdema, and coma supervened; and the patient died on the fifteenth day after the suppression of urine. At the autopsy the bladder was found empty and healthy; the right ureter was obstructed by an old calculus, the left one being free throughout its course. The slightly dilated calyx of the left kidney contained an elongated calculus, which during life must have effectually obturated the orifice of the ureter. An important fact to be observed is that the kidneys exhibited neither fatty degeneration, infiltration of urates of soda, nor any other morbid change. It was ascertained that the man had never suffered from rheumatic or articular pains, nor even from nephritic colic; and, in fact, his first symptoms only occurred after he had entered the hospital. M. Tenneson regarded the case as an undoubted example of anuria induced by calculous obstruction of the ureters.

At the discussion which ensued, however, M. Ferrand, in the absence of all dilatation of the ureters and the calyces, and of all nephritic colic, felt disposed to regard the case as an example of gouty anuria; for, rare as this affection is, it has been recognised, and Dr. Bouley not long since succumbed to it. But as Dr. Michel, commenting on the discussion in the *Gazette*, observes, if a temporary or even a fatal anuria be sometimes met with in gout, the disturbance of the urinary organs has never been known to constitute the earliest or the sole symptom of gout, which has always manifested itself by symptoms referable to the stomach, or more frequently the joints. Moreover, changes in the kidney in these cases are always found, such as fatty degeneration, and more often infiltration by urate of soda—lesions which were found in the case of Dr. Bouley, by MM. Cornil and Constantin Paul. These lesions of the kidney have, indeed, under the designation of the "gouty kidney," been well and minutely detailed by Todd, Rayer, Garrod, Charcot, and Cornil. Prof. Charcot, in his "Leçons sur les Maladies des Vieillards" (page 88), while considering the manifestations of gout in the urinary apparatus, pointed out the fact that in the first stage of the disease the kidneys may exhibit functional disturbances, characterised by sharp but transitory pain (manifestly alternating with articular gout), which may affect either of the kidneys, and an albuminuria which does not persist for long. During the whole duration of this complication there need be no emission of calculi. But even when these symptoms only appear with the earliest manifestations of gout, a renal lesion is found to be the anatomical consequence; and, moreover, they are not isolated, but are preceded or accompanied by symptoms referable to the joints, allowing of the diagnosis thus being positively established. Of course, at an advanced period of the disease these symptoms are still more evident.

REVIEWS.

Clinical Manual for the Study of Medical Cases. Edited by James Finlayson, M.D., Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary, etc.

III.

We resume the consideration of this book with a certain degree of reluctance, arising from various causes. We feel that the work has been one involving much honest labour, but as we proceed with it a feeling of dissatisfaction grows upon us which cannot easily be overcome, and we cannot help regretting that so much labour has been spent in producing what brings so little pleasure in its perusal. To take up the book and give a look here and there to its contents does not give a fair or anything like a fair idea of the work which the whole has cost, nor can it give any notion of that feeling which we have above hinted at as coming over the painstaking reader or the conscientious reviewer who has to look upon and discuss the finished product as a work of art. The reviewer must consider whether what are generally recognised as statements of fact are given in a more or less artistic way, and he must estimate the value of these so-called facts, and of the practical applications of them to every-day professional use. Well, of the so-called "facts" here presented to us, their name is "legion,"—of the industry of the authors there can be no question; but of the way in which these facts are placed before the reader there is much to complain. They are often given in whole heaps—in a way which reminds us very much of a man re-arranging his writing-table or his writing-desk: one kind of document here, another there: plenty of each, but all in heaps.

This will serve as a prelude to what we have to say of Chapter IX., which treats of Disorders of the Respiratory and Circulatory Systems. The main divisions of the subjects treated of under this head are dyspnœa, palpitation, thoracic pain, etc., cough, expectoration, hæmorrhages of all kinds, and the examination of the blood. Now, as regards the first of these, viz., dyspnœa, we have, first of all, a variety of definitions: let us select the widest, which is that it includes "all forms of difficult and obstructed breathing," and let us note how the author begins to discuss such a subject; this occurs at

page 263. There we have nearly half a page filled with the various kinds of mischief which may give rise to breath-troubles, and, as to its utility, we cannot do better than to mention the words of one who had seen the passage. These were to the effect that he could conceive them to be of no use except to the student who, being asked the question as to the causes of dyspnœa, and having carefully got the passage by heart, could repeat them *verbatim*—whereupon a good examiner would promptly reject him. We may add, on our own part, that the same passage might serve the examiner well should he desire to put conundrums to his candidates; but as for any clinical use, or any other direct use to the student or practitioner, we altogether fail to see it. This may seem hard measure to accord to a short half-page of writing, nor should it have been meted by us had not such episodes again and again occurred—not once or twice, but again and again. What is wanted here, and all through the book, are certain little guides—what Germans characterise by the homely name of *Leitfaden*, or leading-strings; something in the shape of a principle which a student may grasp, and round which he may group his ideas. Let us take this very subject of dyspnœa for an example: most of its varieties may be referred to certain groups of causes—such, for instance, as those which interfere with the due access of the air to the blood, of the blood to the air, and of abnormal conditions of blood or air which interfere with what we call due aëration. A rough classification like this we know from experience to be useful to students, even though holes might be picked in it by the score; it gives something more than a *memoria technica* of so many *n*'s and so many *n*'s; it at least suggests the origin of things. In the wrong place in this manual such a grouping is hinted at, even then imperfectly and not at all placed in the light it should be. We have not the heart to enter upon a minute and detailed criticism of this chapter—indeed, that is, as is often elsewhere the case, impossible without far exceeding our limits, for, as we have already said, facts are not sparsely scattered, though the ideas to form them into groups may be. Briefly let us note that "orthopnœa—the assuming of the upright posture for the purpose of getting breath—is," says the author, "one of the great features of cardiac dyspnœa." This may be quite true; but surely it is not less true of pulmonic dyspnœa: for what is the typical example of this form of dyspnœa? Surely spasmodic asthma, which need of necessity have nothing to do with the heart. Again throughout this chapter, as it seems to us, the author has overlooked or not brought sufficiently forward the share which changes in the right heart, especially dilatation, have in giving rise to abnormal conditions. True, these are mainly secondary, but, as far as disease goes, they are often immediate.

Another little point, but again in itself characteristic. At page 296 the author says: "In certain cases of leuksemia the white globules are of the usual size, but at other times they are smaller than natural, and a mixture of large and small white corpuscles may sometimes be seen. (See illustrations in Bennett's work on Leucocythæmia.) No definite significance can as yet be safely attached to these variations in size, but the facts ought to be recorded when ascertained." Now, all this is perfectly normal; such, at least, is the received opinion, founded on Max Schultze's researches now long before the world. Nor is this want of knowledge of normal structure confined to Dr. Finlayson, for his *collaborateur* Dr. Coats, who contributes the chapter which immediately succeeds this, on the Examination of the Fauces, Larynx, and Nares, assuredly does not take into account the peculiar structure of the posterior wall of the pharynx (to take one example alone). Here we have an exceedingly loose tissue of the adenoid type, which renders it extremely susceptible of enlargement or swelling from various causes, to which are mainly due such accidents as retro-pharyngeal abscess, and especially tubercular and syphilitic deposit. This leads us further to note that appearances found in syphilitic disease of the fauces are most imperfectly noted: there is not even an attempt made at drawing a line of demarcation between the early manifestations as simple erythema, and the later in gummy deposits or troublesome ulceration; still less of that unfortunate sequel sometimes encountered, where the soft palate and posterior wall of the pharynx adhere together, and prevent all normal breathing as well as all perception of flavour.

Chapter XI. deals with Disorders of the Digestive System, including such subjects as the state of the tongue, vomiting, flatulence and hiccup, state of the bowels, and abdominal pain, appearance of motions, and the like. We shall, as sole note of it, select from it certain passages which bear on our former criticisms. They are these:—"Vomiting is likewise frequently associated with headache, pain in the back, fever, paralysis, convulsions, insensibility, dropsy, disease of the urinary organs, and disorders of the menstruation." What and whom does this teach? This is recorded on page 322. Take the next page: "The pains and discomfort associated with vomiting are very variable. In fevers and inflammatory diseases the vomiting is usually accompanied with more or less headache, and often with pain in the back and a feeling of soreness in the limbs, or with general malaise. But, in addition to this, there is often pain in the chest, over the liver or gall-bladder, the bowels, kidneys, bladder, ovaries, uterus, testicles, etc., according to the special organs attacked." As to this, all we ask is, *Cui bono?* Certainly not to the patient. Is it to the student or the practitioner?

Again, as respects abdominal tenderness, the author says in the simplest manner: "Localised tenderness, however, may likewise be due to various affections of the abdominal organs themselves, apart from peritonitis. We aim at determining the site of the tenderness in relation to the organs, and at discovering any alteration in the size, position, shape, or density of the viscera in question." (Congestion and cancer of the liver, cancer or ulceration of the stomach, dilatation of the gall-bladder, calculous affections of the liver and kidneys, inflammations, dilatations, and displacements of the kidneys, disease of the supra-renal capsules, inflammations of the ovaries, uterus, or bladder, and aortic or other forms of abdominal aneurism, may be mentioned in this connexion.) What can be said of this? There is no reference to age or sex—in its way, therefore, it is not even complete. Any practitioner could at once name half a dozen things which are here omitted; and what with regard to their relative frequency?

Turn to the next Chapter, XII. Its subject is Jaundice and Dropsy. The matter, except from one point of view, is hardly in any sense of the word correlated, though sometimes from one particular set of causes they may be conjoined. Thus, from disease of the liver, which at once combines pressure on the portal vein and the bile-ducts, the two may arise conjointly, but there is no necessity in the case. Furthermore, as it seems to us, the author has entirely mistaken the current of modern thought in merely classifying jaundice as obstructive and non-obstructive. Obstructive jaundice we all know and recognise; but this non-obstructive jaundice is a bird of another feather. Have many of these latter forms anything more to do with obstructive jaundice than the name and the yellow colour with its natural concomitants? What, for instance, has intermittent hæmatinuria or yellow fever to do with disease of the liver or of its ducts? Let us ask, in reference to this same chapter, how far the ever varying forms of dropsy pair with jaundice pure and simple?

Let us say at once that it is a real pleasure to turn to the next chapter with regard to the urine, and to find it, especially as regards the earlier pages, fairly satisfactory. We have fewer of these interminable catalogues of possibilities, and more of a sound bedside, instead of a potential or book, knowledge put before us, but the catalogues recur terribly later on.

Unfortunately, we are here compelled to draw to an end; the space permitted us has been far exceeded. The subsequent articles are that of Dr. Stephenson, of Aberdeen (whose, by the way seems both sound and practical), and that of Dr. Samson Gemmell, on the physical examination of the chest and abdomen—the former part of which seems much like Gairdner-and-water, and the latter a good deal more of Gemmell; but there is much that is good in both. Again, as regards Dr. Coats' article at the end of the volume, we can say nothing; both this and those stand altogether uncriticised, but it is not to be deduced that they are, in the best sense of the words—we should never think of applying them in the worst—beyond criticism: in the midst of much that is good, there are still, as there must be, flaws, and these we must expect, but they need not of necessity be quite so numerous.

Now, take it all in all, of the author's merit we have but one opinion; of the value of the book to the student or practitioner we have another, quite as clear. Such a book as that now before us could never have been—we were going to say attempted, but many a fool has tried that—we will say,

carried through save by a master of his profession. We can only suggest that his plan has been wrong. Either he should have made the book a mere dictionary of terms, with their values and applications, or something which would be a real aid in the diagnosis of disease. As it stands it is neither.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MARCH 4.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

CONGENITAL DISEASE OF THE AORTIC VALVES.

DR. PEACOCK showed a specimen illustrative of this condition, taken from the body of a female aged nineteen, who had been admitted into Victoria-park Hospital in October, 1878. When five years old, patient had fallen down some stone steps, after which she had pain in the back, and gradually became deformed. She had always had cough, and once spat a little blood; and for about a year before admission, cough, expectoration, dyspnœa, pain, and a sense of fluttering in the region of the heart had been very troublesome. She had never had rheumatic fever, though there had been pains in the ankles and knees. On admission she was found to present angular curvature of the spine in the upper dorsal region, her head always falling forwards and resting on the upper thorax, and she could neither walk nor stand without assistance. Sensation was not, however, impaired in the lower extremities, which were somewhat swollen. There was heard a rough systolic murmur at the base of the heart, followed by a loud second sound, and sometimes by a diastolic murmur. After improving somewhat in the hospital, she died rather suddenly in the end of December, having suffered for the previous week from severe headache and sickness. Post-mortem, the bodies of the last two cervical and the first dorsal vertebræ were found entirely destroyed. An abscess, containing dark-coloured pus, which proceeded from the diseased bones, lay behind the upper part of the sternum and the upper ribs on the right side. The heart was unusually large, and the left ventricle especially was dilated, and its walls thick. The right and posterior segments of the aortic valve were completely blended together, and the united curtain so formed was adherent at the angle and adjacent sides to the left segment, so that all the valves were united, though the union of the right and posterior segments was the most complete, and the fusion of these segments seemed to have been undoubtedly of intra-uterine origin. The edges of the valves were very much thickened, occasioning considerable obstruction to the flow of blood, and probably also some regurgitation.

CONGENITAL MALFORMATION OF THE HEART.

DR. FINLAY exhibited this specimen, which was taken from a stunted, ill-developed female, aged twenty-three, who had always been subject to cough and dyspnœa. She was admitted into the Royal Hospital for Diseases of the Chest in September, 1877, having had hæmoptysis for the six days preceding her admission. She was found to present cyanosis of the face and lips; the fingers and toes were markedly clubbed, and the nails were blue. There was crepitation and slight dulness over the apices of both lungs in front, and at the right base behind. The præcordial dulness extended rather far upwards. A loud, harsh systolic murmur, heard over the whole of the præcordia, was loudest in the second left interspace close to the sternum. It was distinctly traceable to the left clavicle, and was audible, also, over the left scapular region. Over the base of the heart it was accompanied by a somewhat diffuse thrill. A systolic murmur of lower pitch and softer quality was heard over the right base of the heart and in the carotids. After a month's stay in the hospital, she continued attending as an out-patient until January 15, 1879, when she was re-admitted in a moribund condition, the physical signs being similar, as regards the heart, to those just described. Post-mortem, the heart was found to be considerably enlarged, the increase being mainly in the right auricle and left ventricle, which were distended with clots. The right auricular wall was hypertrophied, and the cavity large. The septum of the auricles showed a patent foramen ovale, the opening being half an inch in length; and on the opposite side of the fossa ovalis there was a second opening of similar size, covered by a cribriform membrane. The tricuspid orifice was small, and there were two small warty growths on one of the segments of the valve. The cavity of the right ventricle was small, and its wall hypertrophied. The cusps of the pulmonary valve were distinct but coherent, leaving between them an opening of somewhat triangular shape, one-quarter of an inch in diameter. The trunk of the pulmonary artery was greatly dilated, measuring four inches in circumference. Ductus arteriosus closed. The left ventricle was dilated and hypertrophied, and the mitral valve incompetent. The aortic valves appeared normal. Both lungs presented the appearances of advanced phthisis; the liver was of the nutmeg type; the other organs were normal. The chief points of interest were the co-existence of a cribriform opening in the auricular septum, along with an open foramen ovale, and the extreme dilatation of the trunk of the pulmonary artery, which, in cases otherwise similar, is generally found smaller than normal.

DR. DOUGLAS POWELL asked for an explanation of the great dilatation of the pulmonary artery in this case existing along with the stenosis of the pulmonary valve. He suggested that this result might have been due to the fact that, as the blood could pass through the orifice only in small quantities, the elasticity of the vessel had not been called into play, and had therefore been lost, after which the artery would be more readily dilated.

DR. PEACOCK said that there were exceptions to the rule that contraction of the artery went along with pulmonary stenosis. Probably the dilatation occurred early in life from atelectasis, or some impediment to the circulation through the lungs. The patient having died from phthisis, the case furnished another proof of the incorrectness of the generalisation that cyanosis and tubercle never occurred together.

DR. BARLOW, who had put on the table a specimen of pulmonary stenosis for comparison with Dr. Finlay's case, remarked that his specimen also showed dilatation of the artery above the valve. The patient had died of measles, and there was no atelectasis or phthisis.

DR. FINLAY remarked that there was such extensive consolidation of the lungs by cheesy masses in his case, as to suggest that there might have been thus produced sufficient obstruction to the pulmonary circulation to give rise to the dilatation of the pulmonary artery.

DR. PEACOCK said that in most cases of pulmonary stenosis there was a communication between the ventricles through the septum. When that septum was completely occluded, as in Dr. Barlow's case, there would be more likelihood of there being dilatation of the pulmonary artery.

BONES OF THE SKULL IN CONGENITAL SYPHILIS.

DR. BARLOW exhibited specimens and drawings illustrative of peculiar localised thickenings of the bones of the skull, found in the subjects of congenital syphilis. The first specimen was from a female marasmic child, aged ten months. Post-mortem, on the removal of the scalp, the four bones round the anterior fontanelle were seen to be swollen and of a maroon colour. On section, there was found thickening of the whole of the frontals to the extent of three-eighths of an inch. The anterior upper and lower portions of the parietals were thickened, and the occipital was also slightly thickened. The parietal eminences were natural. On the left parietal there were two small spots of cranio-tabes. There was some bony union between the right frontal and parietal, so that the suture was almost bridged over. No thickening of the periosteum could be detected. The new bony material was porous, light, and vascular. The inner plate seemed natural. The second specimen was the calvaria of a boy, aged eight months. It showed thickening of the two frontals, with premature soldering at the medio-frontal suture. There was commencing thickening of the upper lateral and posterior parts of the parietal. The periosteum over the frontals was very slightly thickened. The bones were very spongy, and in the earlier stages of the thickening showed numerous fine channels. The inner table was not rough, but the diseased condition had reached it. The bone showed, on section, several layers, as if undergoing organisation. There were no noteworthy visceral changes. The third specimen was from a female child, aged three months and a half. In this case there was syphilitic disease of the basilar artery

(shown at a recent meeting of the Society), and gummata in the liver. The change in the cranial bones was less marked than in the other cases. The cranial surface was more vascular than natural, and there was some thickening of the frontals and of the anterior parts of the parietals. The periosteum was not thickened, and could be stripped off in a continuous layer of uniform thickness from the normal and thickened parts of the skull. The diseased bone showed a finely stippled surface. The frontal, on section, presented several layers, as if organising. The fourth specimen was a piece of parietal bone taken from the skull of a child aged one year, and had been lent to Dr. Barlow by Mr. Day, of the Waterloo Infirmary for Children. No history could be obtained. The child was marasmic and anæmic, but had none of the lesions characteristic of rickets. The whole skull was thickened and porous. The peripheral portion was spongy; the middle layers showed an arrangement of trabeculæ at right angles to the plane of the bone; the inner plate seemed natural. From the absence of history and of any visceral changes, this case could not be considered conclusively syphilitic, but, from its general resemblance to the other specimens, concerning which the evidence as to syphilis was quite positive, it was believed to be an example of the same disease. Dr. Barlow said that this disease of the cranial bones in syphilitic children had been fully described by Professor Parrot of Paris two years ago, who had found in such children, especially within the first two years of life, definite thickenings of the bones, most marked around the anterior fontanelles (corner eminences). They might gradually involve most of the cranium, but the parietal eminences were never affected. At the onset, these were lenticular elevations of regular contour, marked by a reddish colour, by porosity, and by vascular channels. By the gradual superposition of new lamellæ, considerable thickening might result, and the sutures often became bridged over. After the activity of the process had subsided, induration might occur. These conditions did not result from rickets, as might be supposed. Mr. Hutchinson, in his writings on the condition of the teeth and eyes in congenital syphilis, had called attention to the marked prominence of the frontals as a characteristic feature. Mr. Hutchinson's observations were chiefly on children over the age of five years, while M. Parrot's were mainly on infants. The swelling of the bones immediately around the fontanelles was the great feature pointed out by M. Parrot; but at a later period the thickening of the frontals might have extended, giving rise to the characteristic physiognomy on which Mr. Hutchinson had insisted, as could be readily understood from a continuation of the growths on the first specimen exhibited. As to the nature of these lesions, Dr. Barlow thought they were quite different from the ordinary periosteal node, though he would not deny that the periosteum might play an important part in their production. In these, however, there was a change affecting the whole depth of the bone, and many of them showed no periosteal thickening. In a case of true periosteal nodes in the cranium of a child, Dr. Barlow had found great periosteal thickening, with suppuration between the periosteum and the bone, and superficial disease of the latter. In reply to the President, Dr. Barlow said he had been unable to examine, post-mortem, the bones of the limbs for nodes, etc., in the cases he had reported.

The PRESIDENT thought the Society was much indebted to Dr. Barlow for this, the first description of these lesions in England. When investigating the condition of the teeth in congenital syphilis, he had observed that many of the patients had a peculiar bulging of the frontal bones, with a sharp projection of the frontal eminences, and a resultant squareness of forehead. He had suggested that these changes were probably due to arachnitis and effusion of fluid within the cranium; but he felt at the time that this was an inadequate explanation, and he now saw that the appearances were really due to changes in the bones alone, as pointed out by M. Parrot. Dr. Barlow's specimens were also of interest as furnishing additional proof of the wide extent of the influence of congenital syphilis, showing an analogy to the secondary stage of acquired syphilis in the extent of its tissue-changes rather than to the more localised lesions of the tertiary form. Had there been any pain in the head, or any symptoms pointing to ostitis?

Mr. MACNAMARA had seen one case similar to Dr. Barlow's, and he had attributed the condition to rickets. One of the specimens exhibited looked, on section, as if there had been periosteal thickening. There might have been a primary periostitis, though there was found to be no superficial periosteal thickening; and this might account for the different structure of the new bone. One of the specimens showed commencing caries or necrosis on the inner table of the skull. He thought that this would have been seen in more of the specimens, as the result of the morbid thickening of the bone, were it not that the inner table derived its blood-supply from the dura mater. In most of the specimens there was seen thinning of certain parts of the bones, so common in rickets. But there was no reason why such thinning should not occur in syphilitic children, or in other forms of dyscrasia than rickets. He inquired whether there had been disease of the epiphyses, which would have probably been present if the children were really syphilitic, or any thickening of the ribs.

Mr. BUTLIN asked if there had been a microscopic examination of the specimens. This would decide whether the changes were ostitic or periostitic in nature. The naked-eye appearances suggested ostitis.

Dr. LEES said he had at first been sceptical as to the syphilitic nature of these lesions; but he had now seen several illustrative cases. He had at present under his care a child with enlarged liver and spleen, and four distinct prominences at the angles of the anterior fontanelle. He had seen another case in a boy aged four years, the whole of whose skull appeared thickened, with two rounded frontal prominences. A baby brother of this patient now presented the manifestations of congenital syphilis, and the elder child had been similarly affected when younger. He did not think the lesions were due to rickets. They would prove of service in aiding the diagnosis of congenital syphilis where the other manifestations were not well marked. He thought that inflammation of the epiphyses, though it did occur, was by no means common in that disease.

The PRESIDENT remarked that the prominence of the frontal eminences he had spoken of had certainly nothing to do with rickets. He thought the bony thickenings in the specimens exhibited could not be considered as "nodes," that term being usually confined to the bony lesions of the tertiary stage of syphilis.

Dr. BARLOW, in reply, said that none of the patients seemed to have suffered from pain. But pain was often absent in congenital syphilis, even when there were true nodes or affections of the epiphyses. One of the cases had presented transitory signs of epiphysial disease. As to the evidences of rickets, there were slight signs of that condition in the first case; in the other three cases there were absolutely none. As to whether the lesions were of an ostitic or periostitic nature, he thought it possible that the changes might take rise in the periosteum; but the absence of any notable thickening of the periosteum in two of the specimens was an important feature. He thought that the pathology of syphilis had been prejudiced by the assumption that the changes were to be found only in certain tissues. In epiphysial disease, for instance, it was now quite certain that the bone, and not the perichondrium, was primarily affected. He had not yet had an opportunity of making a microscopical examination of the specimens, but hoped to do so soon.

CRANIO-TABES.

Dr. BARLOW also exhibited two cranial bones illustrative of the condition called cranio-tabes. There were seen on the inner table small spots of thinning or of deficiency of the bony tissue. The outer wall was normal. This condition had been mentioned by German authorities as an early manifestation of rickets in young children. One of the specimens was from a cases of tuberculosis where there had been none of the ordinary signs of rickets. The condition had nothing to do with syphilis.

(To be continued.)

THE DENTAL HOSPITAL OF LONDON.—The annual meeting of this institution was held on the 13th inst., at the Hospital, Leicester-square, under the presidency of R. C. L. Bevan, Esq., the Treasurer. In the report, which was unanimously adopted, the Managing Committee were enabled to speak satisfactorily of the progress of the institution as regards the funds, which showed a considerable increase in the income compared with that of last year.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 13 :—

Clements, Henry Joseph, Dingle, co. Kerry, Ireland.
Fitzgerald, Robert, St. Mary's-square, Paddington.
Harewood, John Gasson, Boston, Lincolnshire.
Lunn, John Reuben, St. Thomas's Hospital.
Wey, Alfred Cox, Tavistock-road, Plymouth.
Wilkinson, Chas. Fixott, Stock Orchard-villas, Holloway.

The following gentleman also on the same day passed his Primary Professional Examination :—

Downes, Chas. Haggar, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BULLOCK, J. E., M.R.C.S., L.S.A.—Resident Surgeon to the Western General Dispensary, Marylebone-road, *vice* R. Tidbury, M.D., resigned.

CHRISTIE, W. J., M.D.—Surgeon to the Leith Hospital.

COLLINS, F. H., M.D.—Honorary Surgeon to the Hulme Dispensary, Manchester.

DAVIDSON, ALEXANDER, M.B., C.M.—Assistant-Surgeon to the Leith Hospital.

WATSON, ARTHUR, M.B., C.M.—Honorary Surgeon to the Hulme Dispensary, Manchester.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—Surgeons Richard Samuel Purnell Griffiths, Richard Vincent MacCarthy, and Thomas Canning Hickey, M.B., to be Staff-Surgeons in her Majesty's Fleet.

MILITIA MEDICAL DEPARTMENT.—Surgeon-Major Charles White (4th Royal Lancashire), resigns his commission; Surgeon Thomas Starkey Smith (4th Royal Lancashire), to be Surgeon-Major.

BIRTHS.

LEADAM.—On March 13, at 80, Gloucester-terrace, Hyde-park-gardens, the wife of W. Ward Leadam, M.D., of a daughter.

STEVENSON.—On March 17, at Sandhurst Lodge, Gresham-road, S.W., the wife of Thomas Stevenson, M.D., F.R.C.P., of a son.

WALDO.—On March 10, at Clifton, Bristol, the wife of Henry Waldo, M.D., of a son.

MARRIAGE.

RAIKES—BLATHERWICK.—On March 12, at Helensburgh, William Raikes, of Ceylon, to Edith, eldest daughter of Charles Blatherwick, M.D., of Row, Dumbartonshire.

DEATHS.

BALDING, SUSANNAH, wife of James Balding, M.R.C.S., at Barkway, Herts, on March 16, aged 76.

BRINTZCKE, HENRY, F.R.C.S., L.R.C.P. Lond., Medical Officer H.M.'s Convict Prison, at Portsea, Hants, on March 11.

COLE, EDWARD FRANCIS JENKINS, M.R.C.S. Eng., Colonial Surgeon at James Town, St. Helena, on February 6, aged 38.

EDMONSTON, LAURENCE, M.D., at Halligarth, Unst, Shetland Isles, on March 7, in his 85th year.

JAMES, THOMAS, M.R.C.S., of Louth, Lincolnshire, suddenly while travelling by railway, on March 14, aged 56.

JENKINS, HENRY J., M.R.C.S. Eng., at Copelands, Hereford, on March 12.

LAMB, HENRY PHIPPS, son of W. H. Lamb, M.B., at 46, Kensington-park-gardens, W., on March 13, aged nine months.

MARKHEIM, ALFRED J. H. G., M.D., at Sorrento, Italy, on March 11.

RAMSBOTHAM, JOHN MONTGOMERIE, elder son of Samuel Henry Ramsbotham, M.D., at 16, Park-place, Leeds, on March 11, aged eleven years and eight months.

VERSTRAETEN, ADRIEN JOSEPH, M.D., at Brussels, on March 15, in his 81st year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CANCER HOSPITAL, LONDON AND BROMPTON.—Resident House-Surgeon and Registrar. Candidates must be unmarried, registered members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and thoroughly acquainted with the use of the microscope. Applications, with testimonials, to the Chairman of the Weekly Board, 167, Piccadilly, W., on or before March 22.

GATESHEAD DISPENSARY.—Assistant-Surgeon, with double qualification. Apply to Mr. Joseph Jordon, 25, Close, Newcastle.

INFIRMARY FOR CONSUMPTION, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Every information may be obtained from the Secretary.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Physician for the Diseases of Women, and an Ophthalmic Surgeon. The Physician must be a Fellow or Member of the Royal College of Physicians of London; and the Surgeon a Member of the Royal College of Surgeons of England. Both gentlemen will be required to give clinical instruction to the students of the London School of Medicine for Women. Applications, with testimonials, to the Secretary, on or before April 30.

ST. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer. Candidates must be legally qualified to practise medicine and surgery in Great Britain and Ireland. Copies of testimonials to W. M. Teulon, Esq., 18, Upper Woburn-place, W.C., on or before March 24.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population in computed according to the census of 1871.

RESIGNATIONS.

Isle of Thanet Union.—Mr. Robert Hicks has resigned the Ramsgate District; area 3335; population 19,770; salary £95 per annum.

Linton Union.—Mr. Thos. Prince has resigned the Balsham District; area 17,935; population 3892; salary £75 per annum.

Louth Union.—The Burwell District is vacant; area 16,204; population 1772; salary £35 per annum.

APPOINTMENTS.

Bath Union.—Edward M. Fitzgerald, L.R.C.P. Edin., L.R.C S. Edin., to the Second District.

Coventry Union.—Edmund Durant, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Second District.

Easthampstead Union.—James Russell, M.D. and M.C. Aber., M.R.C.S. Eng., to the Sandhurst District.

Heene Union.—Edgar G. Barnes, M.D. Lond., M.R.C.S. Eng., L.S.A. Lond., to the Bedingfield District.

Hythe.—Matthew A. Adams, F.R.C.S. L.S.A., F.C.S., as Analyst for the Borough.

Oldham Union.—George Thomson, M.D. and C.M. Aber., to the Eighth District.

DIPHTHERIA IN RUSSIA.—Quoting from the Russian medical journals, the *Gazette Hebdomadaire* (March 14) observes that while the plague at Astracan is exciting such wide-spread terror, diphtheria at the present time is causing still more terrible ravages, sweeping off nearly all the children of some of the villages of the rural districts; and the epidemic has prevailed in some of the districts in this manner since 1875, passing from village to village. In the district of Mirgorod, up to December, 1878, there had been 11,598 persons attacked, with 6224 deaths; or 12 per cent. of the population of the district, with 5½ per cent. deaths.

APPOINTMENTS IN THE IRISH SCHOOLS OF MEDICINE.—On Saturday, March 15, at a meeting of the Board of the Ledwich School of Medicine, Dublin, for the purpose of electing lecturers to the vacant chairs of Materia Medica and of Botany, Dr. Richard D. Purefoy, a graduate in medicine and surgery of the University of Dublin, and Obstetric Surgeon to the Adelaide Hospital, was appointed to the chair of Materia Medica; Dr. Charles Robinson, a Fellow of the Royal College of Surgeons, Ireland, was appointed to that of Botany. Dr. William Ramsay McNab, Professor of Botany in the Royal College of Science in Ireland, has been appointed to the chair of Botany in the Carmichael College of Medicine and Surgery, vacant through the resignation of Dr. Edmund B. Blakely.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

THE PREPARATION OF BACON.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—For several years past I have found my breakfast bacon much more salt than it used to be, and frequently changed my grocer in the hope of procuring milder bacon, but was unsuccessful. After a time I became impressed—but I can give no reason for it—that the bacon was salted by a patent process. That my butter too was over-salted was visible, and that also with saltpetre, which I could have washed out; but as regarded the bacon I was helpless—water would not remove it. All I have to do now is to discontinue bacon altogether, or take the chance of ill-health. We have read in the newspapers of the frequent occurrence of scurvy on board ships, and all laid to the lime-juice being neglected to be given. I was horrified to read in a leading article in the *Standard*, March 14, 1879, of a meeting of the Manchester Chamber of Commerce, at which it was stated that at the bacon factories at Chicago they hoist a pig in alive at one end of the establishment, and at the other end turn him out in tubs of manufactured bacon! This at once told me how unwholesome it would be to eat bacon or pork salted in this way. Would it not be well to inquire if the ships having scurvy were victualled with American pork or bacon? The only way in which a pig could be salted was whilst warm; the chest opened, the blood washed out with hot water, and then a strong, hot solution of saltpetre and salt injected into the bloodvessels, and allowed to cool, by which time the saltpetre and salt would have permeated the entire body. I am, &c., G. J. S. CAMDEN, M.R.C.S.

Prompt Aid to the Injured.—The work undertaken by the Ambulance Department of the Order of St. John of Jerusalem, and its success, is shown in the fact that in no less than fifty towns in England classes have been formed; and in the metropolis there are, at present, over forty classes for instruction in the art of rendering prompt help to injured persons. A petition has been presented to the Court of Common Council, from the Volunteer Ambulance Department, asking for the use of the Guildhall on Wednesday evening in each week, for teaching classes in ambulance duties for the volunteers of the metropolis.

Extraordinary Longevity.—The obituary of a morning contemporary of the 11th inst. contained some remarkable illustrations of prolonged existence in the cases of twelve persons, viz., seven ladies and five gentlemen, whose united ages amounted to 1062 years giving an average of eighty-five years and six months to each. The oldest was, as usual, a lady, who had reached the great age of ninety-three; the youngest of the same sex was eighty-one. Of the gentlemen, the oldest was ninety-two, and the youngest eighty years of age. The following were their respective ages:—Two at ninety-three, ninety-two; two at eighty-eight, eighty-four; three at eighty-two; two at eighty-one; and one at eighty. The same obituary also contained the deaths of eighteen septuagenarians, whose ages averaged seventy-four years and eight months. That a single day's obituary should contain the deaths of thirty persons averaging seventy-nine years is somewhat remarkable.

A Tutor, H. M., and A Candidate.—Your respective applications should have been addressed to the Secretary of the College of Surgeons, to whom we must refer you. Should "H. M." be successful, he can commence his professional studies at once.

"Joseph Hume."—A balance-sheet is published by the College of Surgeons every July, showing the annual receipts and expenditure: the former amounted to £14,900 19s. 10d., the latter to £14,528 16s. 2d. We published an analysis at the time. If you enclose 1s. 5d. in stamps the Secretary will send you a copy of the last Calendar.

The Irish Constabulary and Lunacy Statistics.—In a report of the Poor-law Union and Lunacy Inquiry Commission (Ireland), just issued, the Commissioners, referring to "lunatics at large" in that country, remark that, as to the actual condition of that very large class, but little authentic information is available. An annual return, it appears, is made by the constabulary, in which is set forth certain details—the name of the lunatic, the character of the mental disease, the religion, and the class of life. The Commissioners speak with high commendation of the intelligence and organisation of the Irish constabulary, and that the duties imposed upon them are discharged with zeal and ability, but the duty of collecting the statistics of lunacy—of making a return that for practical purposes can be of any value—is one for which they are not qualified, as they possess neither adequate means nor authority for doing it. The superficial or "hearsay" knowledge of the constabulary of the "harmless" or "troublesome" lunatic, or as to his or her "treatment," is obtained from "what the neighbours say." It may be asked how it is that such returns as these are made upon information questionable as to its truth, insufficient and altogether unsatisfactory, obtained by men unqualified for collecting such reliable data as would give the returns any intrinsic value.

An Enthusiastic Advocate.—At the Brackley Petty Sessions, last week, about twenty persons were summoned under the Vaccination Act, and were defended by a gentleman who addressed the Court for an hour on the evils of vaccination. Notwithstanding repeated applications from the Bench to stop, he persisted, and at length the whole case was adjourned during his unfinished speech—an expedient which the Bench apparently felt they were compelled to adopt to silence his enthusiastic advocacy.

Sailors' Food Grievances.—At a largely attended meeting of sailors at Liverpool last week, resolutions, *inter alia*, were adopted condemning the present scale of provisions and water supplied to the mercantile marine. In respect to the firemen especially, it was stated they "have to work in a high temperature, and are impelled, by salt diet and great heat, to seek relief in copious draughts of unwholesome water, which result in utter prostration, and not unfrequently in death." One resolution insisted upon a more plentiful supply of fresh provisions when at sea, and that the law should compel shipowners to supply their crews with three fresh messes a week. The scurvy was, in the opinion of the chairman, caused by the bad provisions. The resolutions, it was decided, should be forwarded to the Government.

Deservedly Censured.—A case of death by a boiler explosion at Liverpool was the subject of a coroner's inquiry a few days since, which showed not only reprehensible laxity on the part of the deceased's employers, but the urgent need of a regular Government inspection of all land boilers. The evidence proved that the safety-valves had been removed contrary to all rules providing for the safety of boilers, and the stop-valve shut, cutting off communication with the remaining safety-valve (one valve for three boilers). The jury found that death was caused by the explosion, and severely censured the deceased's employers for ordering the removal of the said safety-valve, adding the recommendation that a Board of Trade periodical supervision should be made of all land boilers.

Anonymous Charitable Contributors.—A useful hint may be taken by the anonymous benevolent contributors to charitable institutions from the evidence adduced in a case recently brought before the magistrate at Bow-street Police-court, exhibiting the exercise of a novel fraudulent device. A deaf and dumb man was charged with several frauds on charitable institutions. It appears he carefully looked over the published lists in the newspapers of such donations, and then applied to those to whom the money was sent for the return of the amount alleged to have been remitted by him, on the pretence that he had forwarded the donation without the authority of the "senior partner." By such means he obtained an anonymous contribution of £5 to the Convalescent Home at Woodford. He pleaded guilty, and the magistrate committed him for trial.

Outdoor Beer Licences.—It was stated at a meeting of the Birmingham Licensed Victuallers' Association, last week, by the Secretary of the National Defence League, that he and the President had had an interview with the Home Secretary, Mr. Cross, a few days previously, on the subject of outdoor beer licences; and it was his opinion that, before the end of the present session, the Government would take energetic measures for the repression of the evil. It has been pretty clearly established that the facilities offered by these licences for clandestinely introducing and selling beer in private houses to servants and others has been a temptation to which they have too unresistingly yielded, and has led to habits thus acquired of intemperance, the pernicious results of which call for, and we hope will receive, the intimated repression by the Government.

Cabmen's Shelters.—The fourth annual report of the Cabmen's Shelter Fund shows the continued success of the movement. Twenty shelters have been placed in various parts of the metropolis, and the average number of men served daily in them is 1357. Satisfactory testimony of the salutary effects of these shelters has been given by Sir Edmund Henderson, the Chief Commissioner of the Metropolitan Police, and other public authorities. It is hoped the Committee will receive adequate public support, to make a considerable addition to the present number of shelters, of the advantages and comforts of which, it is gratifying to observe, cabmen are, in such increasing numbers, availing themselves.

To Prison at last!—The Derby magistrates have committed to prison for two months, with hard labour, a butcher at New Normanton, for having in his possession, prepared for sale, the carcase of a cow which had died of pleuro-pneumonia. For similar offences he had been previously convicted.

Doctors in Bosnia.—It seems that almost the only doctors to be found in Bosnia before the Austrian occupation were the army surgeons in the Turkish service, who were attached to the different garrisoning regiments. These were quite insufficient in number to be able to supply one-tenth of the wants of the natives, and in many districts there was not a single qualified practitioner to be found. The village barber, supported by some old women, quacks, and gipsy mountebanks, was in most instances the only medical authority at hand. The Austrians are rectifying this antiquated state of things, and the Government has recently issued an offer to employ any qualified young doctors who are willing to go to Bosnia. They are to receive 900 fl. yearly—about £72—and also free house and firing, besides any fees they may obtain in practice. Drugs are supplied by the Government. A fee of 50 kr., or 10d., will be levied on those who are not provided with a certificate of poverty. Notwithstanding the small remuneration offered, there is already a brisk demand for places.

Unsophisticated, but not Genuine.—At the Petty Sessions at Salisbury, on Monday, two retailers of milk were fined £10 each for selling as new milk an article which did not answer that description. An analyst of Bristol certified there had been no adulteration by admixture, but the butter-fat and cream had been so far abstracted as to render the milk unfit (particularly for infants) for human consumption.

Meteorological Messages.—The London Meteorological Office announce that after April 1 inquiries may be addressed to it respecting the actual and probable state of the weather in any district of the United Kingdom. The messages, which are not to exceed twenty words, will be sent on the usual form and paid for at the usual rates, and the applicant will also have to pay for the reply, and to deposit a fee of 1s. in return for the information to be received. It is explained that in the words "any district of the United Kingdom" are included all the coasts of England, and, indeed, such parts of the Irish and Dutch coasts as are not washed by the Atlantic. As to the latter coasts the information to be provided will extend only to the weather actually prevailing, and not to what may be expected.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Dublin Journal of Medical Science—El Siglo Médico—Révue d'Hygiène—Boston Journal of Chemistry—Students' Journal and Hospital Gazette—New York Medical Journal—Archives of Medicine—North Carolina Medical Journal—American Practitioner.

BOOKS AND PAMPHLETS RECEIVED—

Rustomjee Naserwanjee Khory, M.D., A Digest of the Principles and Practice of Medicine; with a Short Account of the History of Medicine and Tables of Indian Materia Medica—Transactions of the Obstetrical Society of London, vol. xx., for 1878—Lieut.-Col. George James Ivey, The Club Directory.

COMMUNICATIONS have been received from—

Dr. Robert Druitt, London; Dr. D. H. Tuke, London; Mr. J. Chatto, London; Mr. D. Colquhoun, London; Mr. W. E. Poole, London; Mr. B. R. Wheatley, London; Dr. W. Howship Dickinson, London; Mr. G. J. S. Camden, Rhyl; Messrs F. Newbery and Sons, London; Dr. S. I. Sparks, Mentone; The Secretary of the Dental Hospital, London; The Registrar of Apothecaries' Hall, London; Mr. E. L. Hussey, Oxford; Mr. R. W. Parker, London; Dr. G. E. Herman, London; Dr. E. Symes Thompson, London; Mr. J. E. Ingpen, London; Dr. J. W. Moore, Dublin; Colonel Ivey, London; Mr. W. H. Pearce, Plymouth; Mr. R. Clement Lucas, London; Mr. Balmanno Squire, London; Dr. James Arnott, London; The Secretary of the Hospital for Women, Soho; The Honorary Secretary of the Medical Defence Association; The Honorary Secretary of the Society of Medical Officers of Health; The Secretary of University College Hospital; Mr. C. Godson, London; Dr. Taylor, London; The Secretary of the Royal College of Surgeons, Edinburgh.

APPOINTMENTS FOR THE WEEK.

March 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. Seymour Haden, "On Etching."

24. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Malcolm Morris, "On a Variety of Erythema Multiforme, often called Hydroa." Dr. Dowse, "On Vaso-Motor and Trophic Neurosis."

Royal College of Surgeons of England, 3 p.m. Prof. W. H. Flower, "On the Comparative Anatomy of Man."

25. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Savory and Mr. Butlin, "On Cases of Perforating Ulcer of the Foot." Dr. Gowers, "On the Movements of the Eyelids"; or Mr. Gsakoin, "On a Case of Melanoderma."

26. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Hunterian Society (London Institution), 8 p.m. Mr. Reilly will exhibit a Patient suffering from Chronic Œdema of one Leg. Mr. Jacobson, "On a Case of Acute Intestinal Obstruction ending Fatally ten days after Operation; with Remarks on Treatment."

27. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Sound."

28. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m. Mr. Heath, "Foreign Body (end of a Silver Catheter) in the Bladder—Median Lithotomy—Recovery." Mr. Keetley, "A Case of Severe Traumatic Meningitis treated in the stage of Coma by Cold Douche for two hours and a half—Recovery." Mr. Teevan, "A Case of Cystotomy (living specimen)." Mr. Mac Cormac, "A Case of Unreduced old-standing Thyroid Dislocation of the Femur in which Excision was performed successfully with the object of obtaining a Useful Limb."

Quekett Microscopical Club (University College), 8 p.m. Dr. M. C. Cooke, "On the 'Dual-Lichen' Hypothesis." Mr. F. A. Bedwell, "On a Successful Method of Examining the Anatomy of *Actinia mesembryanthemum*."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Sir Henry C. Rawlinson, "On the Geography of the Oxus, and the Changes of its Course at different Periods of History."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 15, 1879.

BIRTHS.

Births of Boys, 1627; Girls, 1511; Total, 2638.
Average of 10 corresponding years 1869-78, 2451·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	962	1027	1989
Average of the ten years 1869-78	819·3	764·9	1584·2
Average corrected to increased population ...	...	...	1695
Deaths of people aged 80 and upwards ...	...	...	113

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	3	2	4	2	6	1	2	...	1
North ...	751729	4	9	3	...	14	...	7	1	2
Central ...	334369	...	4	4	...	4	...	1	1	...
East	639111	1	4	2	2	23	2	1	..	3
South	967692	7	7	7	3	27	...	4	2	5
Total	3254260	15	26	20	7	74	3	15	4	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·03 in.
Mean temperature	42·1°
Highest point of thermometer	61·2°
Lowest point of thermometer	29·3°
Mean dew-point temperature	33·9°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·19 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 15, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending March 15.	Deaths Registered during the week ending March 15.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2638	1983	61·2	29·3	42·1	5·62	0·19	0·48
Brighton	105608	44·9	52	4	51·1	31·0	41·0	5·00	0·05	0·13
Portsmouth ...	131821	29·4	75	62	...	...	...	...	...	...
Norwich	85222	11·4	65	38	53·0	29·8	40·8	4·89	0·04	0·10
Plymouth	74293	53·3	61	34	55·0	26·5	41·2	5·11	0·00	0·00
Bristol	209947	47·2	134	91	54·5	29·5	40·7	4·83	0·25	0·63
Wolverhampton ...	75100	22·1	60	32	54·7	24·5	40·2	4·55	0·20	0·51
Birmingham ...	388884	46·3	312	198	...	...	...	...	...	...
Leicester	125622	39·3	104	83	57·2	28·0	40·9	4·94	0·08	0·20
Nottingham ...	169396	17·0	140	119	60·4	28·1	41·1	5·06	0·10	0·25
Liverpool	538338	103·3	431	294	54·9	29·0	41·8	5·45	0·40	1·02
Manchester ...	361819	84·3	273	229	...	...	...	...	...	...
Salford	177849	34·4	174	88	...	...	...	...	...	...
Oldham	111318	23·9	94	66	...	...	...	...	...	...
Bradford	191046	26·5	128	109	55·0	26·8	40·0	4·44	0·19	0·48
Leeds	311860	14·5	215	204	51·0	27·0	39·3	4·06	0·16	0·41
Sheffield	297138	15·1	214	167	57·0	26·7	41·9	5·50	0·41	1·04
Hull	146347	40·3	109	81	55·0	23·0	39·5	4·17	0·34	0·86
Sunderland ...	114575	41·4	89	58	53·0	26·0	41·1	5·06	0·21	0·53
Newcastle-on-Tyne	146948	27·4	102	65	...	...	...	...	...	...
Edinburgh	226075	53·9	140	81	51·2	17·0	36·3	2·39	1·01	2·57
Glasgow	578156	95·8	383	280	51·2	22·5	39·0	3·89	0·04	0·10
Dublin	314666	31·3	183	230	58·7	24·5	44·0	6·67	0·51	1·27
Total of 23 Towns in United Kingdom	8502896	38·6	6176	4638	61·2	17·0	40·6	4·78	0·25	0·63

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·03 in. The highest reading was 30·32 in. at the beginning of the week, and the lowest 29·62 in. by the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

MEETING OF THE GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

THIRD DAY—THURSDAY, MARCH 20.

IN committee of the whole Council,

Sir DOMINIC CORRIGAN continued the adjourned debate upon the subject of the equalisation of fees to be paid by students under the Conjoint Scheme. Alluding to Dr. Andrew Wood's assurance that the Scotch universities would never undersell, he said that reminded him of Hamlet's speech when the Queen was proclaiming her innocence, "Methinks the lady doth protest too much." (Laughter.) The learned baronet then proceeded to object to that part of the clause which confined the application of the surplus revenues to the maintenance of such museums and libraries "as may, before the passing of this Act, have been ordinarily maintained by the authorities or corporations." Such a limitation would have the effect of effectually stopping the initiation of any new foundations for the advancement of science. For those reasons he would vote in favour of Mr. Macnamara's resolution.

Dr. HALDANE would also support the resolution, because he was strongly of opinion that the fees ought to be identical in each division of the kingdom, otherwise there would be charges against any corporation which reduced its fees, of underselling, and many other difficulties would arise. He also agreed with Sir Dominic Corrigan in the strictures he had passed upon the proviso limiting the application of the surplus funds.

Dr. AQUILLA SMITH expressed the same opinions, and instanced the case of the College of Physicians in Dublin, who might very well wish to devote a portion of any surplus to a purpose not within the Act as the clause stood.

Mr. MACNAMARA, in reply, called attention to the observations of Sir William Gull, who, with that charming manner with which he was wont to gild some of his most unpleasant pills—(a laugh)—had rolled out some of the most disparaging insinuations against certain medical authorities, with regard to some supposed misappropriation of the fees. He (Mr. Macnamara) supposed that it was suspicion haunting the guilty mind. So far as the body he represented was concerned, he could assure the hon. baronet that the provisions of their charter were so stringent that not a penny could be devoted to any other than a public purpose. The museum and libraries of the College of Surgeons of Ireland had been somewhat depreciated in the debate, and had been spoken of as if they were nothing better than Mudie's Library or "Dr." Kahn's Museum—(laughter)—the fact being that no less an authority than the Curator of the Museum of the College of Surgeons of England had spoken in the most flattering terms of the Dublin museum. He might state that they had just expended £10,000 in improving the pathological department of that museum and their library. Moreover, on a recent occasion, when Mr. Holmes was lecturing on Aneurism, at the College of Surgeons of England, the Dublin Museum had the honour and privilege of being requested to send specimens, of which they had no examples in England. Sir William Gull need not be in the least anxious about the application of any surplus which might arise, because it could only be applied under the sanction of the General Medical Council; and, moreover, an audit was provided for by the Privy Council and both Houses of Parliament. The most important question of all remained, and he feared it must be answered in the negative: Would there be any surplus at all to apply? (Laughter.)

The President then put the resolution to the vote. It was as follows:—(*a*) "That in line 8, after the word 'regulating,' the words 'the curriculum, the fees to be paid for admission to the examinations and,' be inserted." (*b*) "That in line 13, after the word 'Council,' the words 'And it shall be the duty of the General Medical Council to see that the examination rules in each part of the United Kingdom are so framed that the qualifying certificate shall, as nearly as possible, be granted on equal terms so far as curriculum, fees to be paid for admission to the examinations, and examinations are concerned,' be inserted." Carried by a majority of 15 to 1.

An amendment of which Mr. Macnamara had given notice was then withdrawn, it having been anticipated by one of the amendments about to be introduced by the Duke of Richmond into the Bill.

Rev. Dr. HAUGHTON, in moving an amendment of Clause 27, which gave power to the Medical Council to delegate its authority to any person for the framing of examination rules, said that he had the authority of a distinguished lawyer for saying that such a power of delegation was unparalleled in any Act of Parliament. He felt quite sure that Parliament would never sanction it, and if it did it would give rise to very great inconvenience. With regard to this clause, Lord Emly's amendment dealt very summarily with it, because he simply proposed to omit Clause 27 altogether; while Lord Portadown, who represented the views of the University of Dublin, was about to propose in the House of Lords to limit the clause, and he had every reason to believe that the Lord President would consent. The words of delegation were so wide that it would be possible under it to delegate an important matter of this sort to one's cook—(laughter)—because the words were "to any person." It need not even be to a man; it might be to a woman. Fancy Miss Jex-Blake having delegated to her the establishment of a branch Council! Why, they would have to marry her to get rid of the difficulty! (Laughter.) On these grounds he submitted that the Council ought to pass a resolution that this power should be limited.

Mr. SIMON seconded the motion, stating that his objection to the clause was its inutility, because it was simply giving to the Council powers which they already possessed.

Mr. TEALE concurred in this. He fancied it had been inserted in consequence of a resolution come to last year, which resolution was passed because it was thought that the wording of the Bill precluded the Council from taking the various bodies into their confidence in drawing up these rules; and the Council felt that the bodies themselves were more versed in the actual working of examinations and education than the Council.

Dr. STORRAR, while concurring in the opinions of the previous speaker on this subject, had an objection to Professor Haughton's motion because it called on the Council to state that the powers given to it by the Bill were too wide and undefined. He could imagine the Lord President saying, "What does this mean?" The resolution ought to state distinctly in what way the powers were too wide and undefined.

Sir WILLIAM GULL could not understand why the Council need be so much afraid of themselves that they should ask the Lord President to take care to fetter their hands. (Laughter.) He for his part felt quite equal to the discharge of his duties, however wide they might be. He had heard of some creatures who gnawed off their wings when they reached a certain point of development; and Dr. Haughton, by his resolution, seemed inclined to put the Council in that position. If they had wings, he did not see why they should not fly. (Laughter and applause.)

The PRESIDENT pointed out that the clause reserved to the Council the power of modifying or rejecting any scheme which might be drawn up by the person to whom the delegated powers were given; and he might add that the Government draftsman was unable to understand the objection to the clause.

Professor TURNER said that the delegation provided for by the clause was of a perfectly specific character. With regard to the objections raised by Dr. Haughton, there was no fear of the Council delegating an important matter to persons not well fitted to perform the duty. Discretionary power was given to the Council, and the Council would know how to exercise it.

Dr. ROLLESTON said that nothing could be more safely guarded than the ultimate authority of the Council in this matter of delegation. Dr. Haughton's motion showed a lack of self-confidence which was amazing in this age of scepticism. He would recommend to the Council the advice of Mephistopheles—"Above all things believe in yourself, for so long as you believe in yourself all the world will believe in you."

Dr. HUMPHRY called attention to the fact that the same power was given by Clause 15, Sub-section 5, which enabled the Council to "cause to be framed and approve examination rules under this Act." Those words were introduced advisedly, because the Council, by the resolution alluded to by Dr. Haughton as a "suicidal resolution" (and which had been frequently misrepresented by those who were not familiar with the circumstances under which it passed), came

to the conclusion that it was far wiser and better that rules and regulations should be framed by other bodies and submitted to the Council for final approval; because then there was a double check provided. (Applause.)

Dr. QUAIN could not conceive why the Council should refuse to accept power if Parliament chose to give it.

Mr. OUVRY (legal adviser to the Council) stated that he had been given to understand by a person very well informed that Lord Emly's amendments to strike out this clause as far as regards that part which the Council was discussing, would be accepted by the Government.

After some observations in reply by Dr. Haughton, the resolution was put to the Council and lost, the numbers being 12 to 7.

Dr. HUMPHRY then moved a resolution suggesting an amendment of Clause 25 (which provided a scheme for examination, licensing, and registration of midwives) in these terms—"That in order that the examination of midwives may be efficiently conducted, it is desirable that the scheme for such examination be framed by some central authority; and that, having been submitted to and approved by the Privy Council, it be carried into effect by such local authorities or persons throughout the kingdom, and in such manner, as the Government may direct." His object was that there should be an initiation of a definite principle and plan by some central body, to whom the duty should be delegated in order that, after approval by the Medical Council and the Government, it should be carried into effect in all parts of the kingdom. This was, he might add, entirely in accordance with the recommendation of the Obstetrical Society, who had framed a scheme for the purpose.

Mr. MACNAMARA suggested that instead of the indefinite term "some central body" in the resolution, the words "branch Councils," should be substituted, because each branch Council would know the requirements of each division of the kingdom, and what would be a feasible scheme to apply thereto.

Dr. HUMPHRY had no objection to such an emendation of the resolution.

Professor TURNER doubted whether branch Councils were fitted for framing a scheme for the examination of midwives. He was a member of a branch Council, and knew nothing whatever upon the subject.

Mr. SIMON thought the Council had already sufficient responsibilities, without casting upon themselves this additional one, and advised a postponement of this question to a future meeting of the Council.

Dr. AQUILLA SMITH inquired whether the Council were prepared to take upon themselves the enormous labour involved in the resolution of Dr. Humphry. The duties imposed on the Executive Committee by the Dentists Bill of last year was something which nobody could realise but those who had gone through it. Such an undertaking as this was a very much more serious one. The President of the Obstetrical Society estimated that there were 11,000 midwives in England. Then, again, the local authorities upon whom it was proposed to cast the duty of licensing midwives, were most unfitted for the purpose, *e.g.*, the justices of a county at quarter sessions, or the town council of a borough. Imagine the town council of a small Irish borough, consisting of two or three petty drapers and five or six publicans, having charge of the examination and licensing of midwives! From what he had learned from Dr. Aveling, the President of the Obstetrical Society, he had very little doubt that there were as many as 20,000 midwives in the United Kingdom; and it would take a book as big as the "London Directory" to hold their names. (Laughter.)

Sir WILLIAM GULL said the Act seemed to go midway between the views of Dr. Humphry, who moved the resolution, and those who opposed it. The difficulties of the working of the Act appeared to him to be much exaggerated. These things did not spring into existence in their perfect form at once; but rather, in accordance with Darwin's law of development, a scheme of this kind might commence in a very humble way, and under exceedingly unfavourable auspices (it was only permissive to begin with), and develope into a most beneficial institution. He remembered sitting on a committee to consider this subject last year, of which Mr. Simon was chairman, and they all felt that, although the Council was not at present in a condition to take the whole responsibility upon itself with regard to this matter, it should still favour any beginnings in that direction. It was this view which the Act carried out. He appealed to everybody whether it was not the duty of the medical profession to do what they could in the matter. How much better to devote a portion of their energies to seeing that children were properly brought into the world and started on their voyage in life, than to be perpetually pretending to cure diseases which they well knew they could not cure, or, in other words, following what is called "the practice of medicine." Their maxim ought to be *principiis obsta*—he did not mean physically with regard to the children who were ready to come into the world—(laughter),—but he used the phrase in the old sense of "Prevention is better than cure." Nursing and midwifery were at least as important as dispensing physic. Therefore let the Council vote for the beginning of this good thing, and, while refraining from imposing upon themselves fixed laws upon the subject, leave the Act as it stood.

Dr. STORRAR estimated that if all the old women who performed the duty of midwives were counted together with the professed practitioners of the art the numbers would amount to nearly double the 20,000 estimated by Dr. Aveling. While recognising the importance of some kind of supervision and instruction of these women, he trembled at the idea of the Medical Council or the branch Councils taking in hand the task of constructing the edifice. It should be left to Poor-law unions or any other associations, whether in counties or towns, who have such regard for the welfare of the public that they will give their attention to questions of this kind, or who desire to frame schemes in the interests of parturient women. These schemes might be sent up to the Medical Council for sanction, and then the Obstetrical Society or other bodies interested in that branch of medical science might act upon the basis so formed.

Dr. ROLLESTON reminded the Council that Clause 25 of this year was Clause 24 of last year, in which the recommendations of the Council were fairly embodied, and they would be performing that very awkward manœuvre of turning their backs upon themselves if they did not accept it as it stood.

Dr. HUMPHRY, in reply, said that it seemed to be generally admitted that it was desirable that this examination, licensing, and registration of midwives should be carried out. His resolution simply went to this—that it should be carried out systematically, carefully, and properly. An objection had been made that it ought not to be compulsory. If it was to be done at all it ought to be compulsory, and he could not understand how a difference of opinion could exist upon such a matter. There was already a scheme framed by the Obstetrical Society which might be sanctioned if approved by the Medical Council. The Government would then have simply to direct the local boards of health in each division of the kingdom to carry out the scheme. It must be borne in mind that he did not propose for the Council to undertake the registration of these women; that would be conducted by the local authorities, who would keep the register. And by having a predetermined scheme of this sort, the work of the Council in this respect would in fact be very materially diminished, otherwise the thing would be perpetually cropping up, and would have to be taken into consideration by them piecemeal.

After some observations from Dr. QUAIN and Mr. SIMON, who said it was hardly fair to bring up such an important matter without notice,

The President put Dr. Humphry's motion to the Committee, and it was carried by 12 to 5.

Dr. HUMPHRY then called attention to Sub-section 7 of Clause 25, which provided for the prosecution of midwives who offended against the Act, and moved a resolution recommending that the duty of prosecution should devolve upon the local authorities.

The motion having been seconded by Dr. ANDREW WOOD, was carried unanimously.

Professor TURNER called attention to Sub-clause 3 of Clause 15—"The examination rules shall determine the conditions of admission of candidates to the examinations, and shall provide for the admission thereto on special terms of medical students who have begun their professional studies before the passing of this Act, and of persons who have obtained medical diplomas in, or studied in, any British possession or foreign country, or have passed other examina-

tions." This clause appeared not sufficiently to provide for what the Council accepted last year upon this subject, and the relation of existing medical students, or those who might be medical students before the passing of the Act, to the new state of things which would be inaugurated, when they would be brought under the operation of the measure. In the original Medical Act Amendment Bill, Clause 46 provided—"It shall be lawful for the General Medical Council, by special orders, to dispense with such provisions of this Act, or with such part of the regulations made by their authority, as to them shall seem fit, in favour of medical students who shall have commenced their medical studies before the passing of this Act." That was a special clause introduced for the benefit of existing medical students. As to the present Bill, however, it did not appear to give any dispensation from the provisions of the Act, but it only provided for the admission to the examination on "special terms"—a concession not nearly so great as that given to existing students in the original Act. It seemed to him (Professor Turner) that the students of the present day might very fairly claim that they should be put on the same footing as those of the year 1858. He desired to ask their legal adviser how far the words above quoted would enable the Council to dispense with examinations if they felt it expedient to do so.

Mr. Ouvry said the question arose not upon the Act, but on the framing of the rules; and it seemed that in framing the rules the Council might give any dispensation they thought right.

The President said he would take care that proper notice was sent upon this subject.

Professor Turner further desired Mr. Ouvry's explanation upon the meaning of Clause 24, appertaining to unregistered persons. This clause provided, amongst other things, that "if a person wilfully takes or uses the designation of any medical diploma which he does not possess, he shall, for every such offence, be liable, on summary conviction, to a fine not exceeding £20." The next paragraph was as follows:—"If a person, not for the time being registered in the Medical Register, gives any certificate which under the Medical Act (1858) is invalid unless signed by a person so registered, he shall be liable, on summary conviction, to a fine not exceeding £20." Reading those two clauses together, he wished to know whether the first of them would cover the case of a registered person as well as a non-registered person, because if so it was very important as bringing registered persons under the operation of the clause.

Mr. Ouvry said the clause expressly applied to unregistered persons. The principle of construction was very plain, because if a person is registered it is a matter of the least possible importance whether he took the designation or not, because he is a registered practitioner, and therefore competent to give a certificate.

Professor Turner said he was not alluding to the second clause relating to the granting of certificates, but to the first, which was aimed against using the designation of any medical diploma, which any person, registered or unregistered, did not possess.

Mr. Ouvry said that that ambiguity was regulated by the heading of the section, which showed that it referred primarily to unregistered persons. If a licentiate of the Apothecaries' Society should call himself a member of the Royal College of Surgeons or a Doctor of Medicine, it was not under that clause that he could be punished.

The President made a note of this ambiguity also, for the purpose of drawing the attention of the Government draftsman thereto.

After a further explanation by Mr. Ouvry with regard to the provision for the registration of midwives,

Dr. Humphry moved—"That with reference to the registration of midwives—in Clause 25 of the Lord President's Medical Act (1858) Amendment Bill—the expenses incidental to the carrying out of any scheme, including those of the publication of the Registers, should be defrayed by the several local authorities."

The motion being seconded by Dr. Aquilla Smith, was carried unanimously.

Mr. Ouvry then called attention to the last section of Clause 24, which was a saving clause, taking dentists out of the operation of the clause imposing penalties for unauthorised assumption of title by unregistered persons. It was as follows:—"This section shall not prevent a person registered in the Dentists' Register, under the Dentists Act (1878), from taking or using the designation of dentist or of licentiate in dentistry, or in dental surgery, or of certified dentist, and shall not prevent a person from using the designation of midwife, nor if such person lawfully holds a licence in midwifery of, or a certificate of fitness to practise as a midwife from, any of the medical authorities, from taking or using the designation of licentiate in midwifery or certified midwife, and shall not impose a fine on any such person as aforesaid for taking or using such designation as he is hereby declared not to be prevented from taking or using." It had been considered under the Dentists Act that a dentist could call himself "dentist-surgeon" or "surgeon-dentist." Neither of those designations were mentioned in this saving clause, and thus a conflict appeared to arise between the two Acts.

Dr. Rolleston proposed to remedy this by the insertion of the words "surgeon-dentist" in this section.

Dr. Aquilla Smith said they were already assuming the title of "dentist-surgeons."

The President, under Mr. Ouvry's advice, then made a note to this effect: "That the words of this section seem by implication to prevent a dentist calling himself 'surgeon-dentist' unless he be a licentiate in surgery; whereas under the Dentists Act an opinion which the Council has obtained states that he might so call himself,"—and by the unanimous vote of the Council was requested to present the same to the Government draftsman.

The President said it had been suggested to him that the repeal by the present Bill of Section 3 of the Medical Practitioners Act of 1876 would deprive the universities of the power of conferring the degree of Bachelor of Surgery, but their legal adviser was of opinion that that would not be the case.

On the motion of Dr. Andrew Wood the Council then resumed.

The following resolution, which was agreed to in committee yesterday, then came before the Council for confirmation:—"That the following memorandum on the registration of colonial subjects and of foreigners be submitted to the Lord President, with a view to its being substituted for Clauses 6, 7, and 8 of his Medical Act (1858) Amendment Bill:—That, with the consent and approval of the General Medical Council, any of the medical authorities may confer, without examination, on a colonial subject or on a foreigner, a degree, diploma, or licence entitling him to be registered, provided that the medical authority has received such evidence as to character, professional education, and examination as would be deemed sufficient as a qualification for the like degree, diploma, or licence in the case of a person not a colonial subject or a foreigner. There shall be a right of appeal to the Medical Council if no medical authority consent to admit such colonial subject or foreigner."

Sir James Paget said he was sorry he had occasion to try to reverse the opinion which the Council expressed yesterday on this subject, but he had come to the conclusion that the motion should not have been carried, and he wished to state the reasons which actuated him. In the first place, he thought it exceedingly doubtful whether the Government should be recommended to allow the admission of colonists and foreigners to registration in England to be settled practically by any of the authorities separate from the rest, even though there was a right of appeal to the medical Council. He doubted very much whether the Government would leave a matter of that importance to so many different bodies, not one of them being immediately under its control. Again, something like reciprocity should be looked for, and Englishmen should be admitted to practise in foreign countries upon somewhat the same terms as foreigners were admitted to practise here. It was proposed that foreigners on joining themselves to any of the medical corporations should be allowed to practise here; but Englishmen, on being admitted to the universities in Germany, for instance, gained no right to practise there. Then as to the manner in which the Bill would be carried into operation, what were their means of testing any examination conducted 500 miles away? It had been argued that the questions could be sent over, but it would surely be admitted that unless they had the candidate's answers, so as to be able to judge what he did with the questions, the questions would give them no information at all. It was true they could see the curriculum of education, the opportunities the student had of learning, and the questions which were put to him, but whether he was

passed upon 5 per cent. of the number of answers required, or 50 per cent., they had no means of telling. The least that could possibly be done to ascertain the value of a diploma granted abroad would be to acquire, by careful, confidential communication with responsible persons on the spot, an idea of the estimation in which persons who passed particular examinations were held; but this could not be gained by any one of the corporations of England, Scotland, or Ireland. The Council had no right to require any foreign or consular officer of the English Government to give them that information, and if anybody had to decide which of the foreign or colonial diplomas were to be taken as sufficient for registration, and which not, it could only be done under the authority of the Medical Council acting in conjunction with the Colonial or Foreign Office from which the information had been derived. That information would have to be tested with the most scrupulous care by a body having no interest in the result, and entirely free from the imputation of desiring to add members to its list. If the motion were confirmed, each authority would be at liberty to refuse to admit a foreign or colonial practitioner, and thus he might be compelled to attach himself, not to the highest authority in England, but to the lowest. Another objection was, that if a foreign practitioner, with a degree which was known by his fellow-countrymen to be worthless, were registered here as a Licentiate of the Royal College of Surgeons, for instance, foreigners here would think he was a good man, and had done something to justify his being associated with respectable persons. He could not be dislodged from the Register if he had been registered upon some very low qualification, because he would have been guilty of no fraud. He therefore moved that the resolution be not confirmed.

Dr. Rolleston inquired whether the French Government allowed foreign practitioners to practise in France without first subjecting them to certain examinations.

The President said he believed the question was still under discussion, and that the measure providing for that regulation had not been passed at present. There were no further restrictions than there originally were. The question, however, was what was to be done in England.

Professor Turner said the French authorities were acting as though M. Marvais' Bill had become law, because a nephew of their late distinguished colleague, Dr. Thomson, who had gone to Algiers for the winter, had been subjected to examination, and had been compelled to take the lowest grade before he was allowed to practise even amongst his own countrymen there.

Rev. Dr. Haughton wished to point out two instances, showing how Englishmen were treated abroad. Two gentlemen, graduated in Trinity College with high distinctions in arts as well as medicine and surgery, had gone respectively to Valparaiso and Buenos Ayres; and, when it was found that these gentlemen could not be kept from practising in competition with the very imperfectly educated Portuguese and Spanish practitioners in those countries, the Buenos Ayrian and Chilian authorities passed a rule requiring them and men of their class to undergo the degradation of passing the lowest form of examination. If English graduates were treated in that way by foreign countries, the medical representatives of those countries should be treated in the same way here—their qualifications should be inquired into, and reciprocity established.

Dr. Humphry said the question before the Council was not whether there should be reciprocity, but as to the mode of carrying out that reciprocity. A foreigner, or colonial subject, would first have to apply to a medical authority; that authority would state whether he was a fit person to be admitted on the Register; and then, if the Medical Council approved, such person would be admitted on the Register in the same manner as other practitioners in this country. The objection to that was that the Register would not point out which persons had gone through the recognised examination for qualification in England, and which had not; and, if this proposition were adopted, colonial practitioners would be given higher privileges than the Act gave them: they would be upon the Register as though they were qualified English persons, without paying the fees. Again, if the medical authorities one after another refused to admit a colonial practitioner, and he appealed to the Medical Council, and that body, after investigation, thought he ought to be admitted, what was to be done? The resolution was unworkable, and, for the foregoing reasons, he (Dr. Humphry) urged the Council not to assent to this resolution.

Dr. Rolleston inquired whether the President's answer to his question did not amount to this: that the Government were negotiating with the French Government on the Bill, and that if the resolution were not approved they would be repudiating what they recommended to the Government last year.

Mr. Simon said that he had reproached himself because he had not explained as fully as he might have done the considerations which led the Committee of which he was chairman in 1877 and 1878 to pass the recommendations which had been accepted by the Council and reported to the Lord President, but he omitted to state them because he presumed that the Council were familiar with them. But after the exhaustive statements of Sir James Paget and Dr. Humphry he felt persuaded that now the Council would see that the Committee of 1877 and 1878 were right in the resolutions which they submitted to the Lord President. Probably the Lord President at that time was proposing in the House of Lords modifications of his Bill based on their recommendations; and what value would the Lord President place upon their recommendations if to-morrow morning, after acting on the advice of the Council, he received a totally different and opposite recommendation from them?

Mr. Macnamara thought the argument of Sir James Paget was conclusive, and he should vote with him against the adoption of the resolution. He pointed out that the medical diplomas granted in a British possession or foreign country which were recognised by the Act were "such medical diplomas as may be recognised for the time being by the Medical Council," and he trusted that the Council would be more chary than heretofore in recognising such diplomas.

Dr. Storrar drew the attention of the Council to a recent discussion which had arisen about the importation of Swiss watches. The Swiss manufacturers were in the habit of sending their watches over here, having the hall-mark put upon them, and selling them as of English make, which was entirely analogous to what would be done if the resolution were confirmed; for gentlemen educated in the colonies would come to the British medical authorities, who, without examination, would put their mark upon them by inserting their names in the common Register here. It seemed to him that was a very forcible illustration of the mischief that would be done, and he should therefore vote with Sir James Paget.

Dr. Quain said nothing had been urged which was not urged the day before, and he thought the question, which had been fully discussed before, should not have been reopened without an atom of reason for it. His object in proposing the resolution had been to bring colonial and foreign practitioners within the control of the medical bodies, who would satisfy themselves that the applicants were men of good character, and that the examinations they had passed were equal to the English examinations. There were nine corporations in the three kingdoms, amongst whom this duty might be divided. It was not in the least intended that it should fall on the Medical Council. It had been stated that the scheme was unworkable and impracticable, but it seemed to him the simplest thing possible. It would be the duty of the gentlemen making the application to produce evidence to satisfy the medical bodies; and if his university felt any interest in him it would surely be ready to supply information for his interest and advancement. If foreigners resided here they were entitled to have doctors from their own country, and he saw no reason why, if they were fit and proper persons, they should not be put on the Register.

The President, in answer to Dr. Rolleston's question, whether the French authorities allowed foreign practitioners to practise without first subjecting them to French examinations, said that that was the purport of M. Marvais' Bill, and in the French Chambers the argument for it was that other countries, almost without exception, required examination of French practitioners, and therefore the same thing ought to be required in France. But so far from that being the case with regard to England, the Duke of Richmond last year drew up a clause in quite another spirit. Negotiations had been going on with the French Government for a long time with regard to a modification of this regulation, and he thought, without some very strong reason, they

should not in the course of such negotiations suddenly change their front.

Sir WILLIAM GULL, in seconding Sir James Paget's motion, said the question was, whether it was fair to the practitioners of this country, who had to undergo all sorts of examinations, and about whom all kinds of regulations were made before their names were allowed to be put on the register, that foreigners should be registered without any of those restrictions, and without paying any fees so far as appeared.

The President then put Sir James Paget's motion, which was carried by a majority of 11 to 7; and the Council adjourned.

FOURTH DAY—FRIDAY, MARCH 21.

The Council proceeded to confirm the resolutions passed in committee upon the various clauses of the Medical Act Amendment Bill.

Upon the clause relating to the examination and registration of midwives,

The PRESIDENT announced that he was informed by the Lord President that it was his intention to deal with the subject by a separate Bill, so as not to complicate the present measure by a discussion quite wide enough to be dealt with by itself.

Notwithstanding this, however, the resolution of Dr. Humphry passed in committee with respect to this matter was confirmed.

Upon the resolution of Mr. Simon, seconded by Sir James Paget, and passed in committee, with regard to professional honour,

Mr. SIMON said that he had a rider to the report of the Committee with reference to the clauses of the Bill framed for the purpose of keeping the medical profession free from persons whose moral character would disgrace it—"That the Council submit to the Lord President that the parts of the Bill which relate to the purpose of keeping the medical profession free from persons whose moral character would disgrace it, require, in the opinion of the Council, to be strengthened by additions to the following effect:—(*a*) In connexion with Clauses 12-14, to provide that the Medical Council may refuse registration to an applicant, for any reason which, if he were already registered, would entitle the Council to erase his name from the Register, and that, for continuing the exercise of this power at times when the Council is not sitting, any branch Council, or any committee which a branch Council authorises to act for it for this purpose, may, subject to appeal to the Privy Council, provisionally withhold registration. (*b*) In connexion with Clause 5, to provide that in any case where a corporation refuses to 'attach' any person applying to be attached, and states its refusal in writing, it may, if it sees fit, state, in the same document, the reason of its refusal, and may further, if it sees fit, furnish a copy of the document to each of the local registrars under the Act." He said that under the Bill in its present form, a man with a qualifying certificate might go to a corporation (say the College of Physicians) and ask to be admitted and enrolled a member. The College of Physicians might know that he was a man who kept an unqualified assistant, or a procurer of abortions, or the most dishonest and obscene of advertising quacks, and on one of those grounds refuse to enroll him. The man under those circumstances had a right to come to this office and claim to be registered, and as the Bill stood the Council had no power to refuse him. It was no answer to that to say, "You can register him and then strike him off," because a great deal of mischief might be done by such a man before the Council met, and months might elapse during which he would be on the Register of medical practitioners. It would be much better to have the power of refusing such a man, subject, of course, to the same appliances of law as to appeal, etc., as there would be in the case of removal from the Register. The Act ought to be so framed as that the Council shall be able to refuse to register such a man where his antecedents have been such that they could strike him off the Register if he were on; and further, there should be a provision that the corporation which refused on moral grounds to register a man shall be entitled, without any liability for action for libel, to inform the Medical Council that they have refused on such grounds. He had prepared a rider carrying out both these views, and he then moved—"That it be brought under notice of the draftsman of the Bill that, in Clause 5, where provision is made with regard to cases in which corporations shall refuse or fail to 'attach' bearers of qualifying certificates who seek to be attached to them, it seems to have been overlooked that in certain cases the corporation's refusal may rest on grounds of moral disqualification in the applicant, such as, if he were already on the roll of the corporation, would entitle the corporation to remove him from it; and that it be suggested to the draftsman that apparently some qualifying words are wanted, lest persons refused on such grounds as those should *ipso facto* acquire the exceptional privilege as to registration which the clause intends to give to other refused persons." If this were adopted the position of things would be that a corporation would have the power of refusing, and if it was merely on the ground of sex the suggested modification of the law would not affect the question. Every refused person would have a right to get his refusal in writing, which would be privileged from an action of libel; and then, if the grounds of refusal stated were such as would justify the Council in removing a man's name from the Register, the Acting Committee would be at liberty to suspend the registration until the next meeting of the Council.

The motion having been seconded by Dr. SCOTT ORR,

Sir DOMINIC CORRIGAN said the suggestion of Mr. Simon trenched upon very dangerous ground. It, in fact, gave power to the corporations to condemn a man unheard. But besides this, the suggestion to make the refusal in writing a privileged document by statute was wholly unconstitutional and would never be passed by the House of Commons. The only assembly in the kingdom who could claim that privilege was the House of Commons itself. He must therefore vote against Mr. Simon's resolution, because he thought it unwise and inexpedient to introduce such a power.

Sir WILLIAM GULL agreed with Sir Dominic Corrigan. Plausible as the thing looked at the first blush, he felt constrained to ask what necessity there was in the present state of the profession for such extraordinary powers. Was the profession in so disgraceful a state in regard to the students who were candidates for entering it that such action on the part of the Council was necessary? He was not aware that such a lamentable state of things existed. But, again, Mr. Simon's proposal would give power to the Council to institute an inquiry into acts done at a time when the student was in no way connected with the profession. Moreover, it left no *locus pœnitentiæ* for the man, and provided for his being condemned unheard. He foresaw that great hardships might arise under such a system, and the Legislature would not be very likely to give the power of cutting a man off from every possibility of reform or useful activity in life to any medical corporation or authority. He could conceive cases in which a man might take up new or unpopular views upon medical science, such as would create an antagonism on the part of the authorities, and they might refuse on those grounds to register, thus sending a man to this Council with a sort of stigma against him. The wisest of men had said, "Do not legislate too much." ("Hear, hear," from Dr. Andrew Wood.) While fully sympathising with Mr. Simon in his desire to keep the profession free from bad characters, he felt constrained to vote against this amendment of the Act.

Dr. ROLLESTON: I am sorry to have to oppose Sir William Gull. I see that the reason for erasure in many cases, as our Register at present stands, is stated to be because they have been erased from the roll of the Royal College of Physicians of Edinburgh, or the Royal College of Surgeons of England. That shows the important *rôle* which the corporations can play with regard to this matter. Let me cite an instance of what I mean. There is a person at present upon our rolls who simply retains his position by means of a legal quibble. He is not a felon because he turned Queen's evidence, and yet he retains his name on our roll because the two corporations to which he belongs have not seen their way (from ignorance of the matter, as I happen to know) to get rid of him. As soon as those corporations have their attention directed to it I have no doubt that they will take up the matter, and then his name will appear in this same loathsome list as having been removed because it has been struck off the rolls of those two corporations. There is another thing—there is something which is not exactly moral fraud, but which is a breach of etiquette, and especially professional etiquette, which it is of the highest importance to be able to punish. There is a large amount of what is called etiquette which

if we are to go on with a proper *modus vivendi*, cannot be carried out by this large promiscuous Council, and can only be enforced by the corporations, who will have to exercise in the future as they have done in the past—like the College of Physicians—that salutary influence which is the only way of keeping up what I have called a *modus vivendi*, or what I may term, in other words, "professional comfort." You cannot get this huge Nasmyth hammer to deal with these minutiæ of professional etiquette. It would be, so to speak, to break a butterfly on the wheel. I hope the universities and corporations will continue the good work that they have done in the past. That will be another *raison d'être* for them in these days when corporations have to fight for their existence.

Sir JAMES PAGET: This is the central point of Mr. Simon's motion: a man passes the conjoint examination; afterwards something is found out which has been overlooked by the examiners—the man has been an advertising quack, a procurer of abortions, or in some way guilty of misconduct which would justify this Council in striking his name off the Register. Thereupon the corporations refuse, one or all of them, to register him. The Act, as it at present stands, thereby confers upon him an absolutely unalterable right to be registered. All that he requires in order to be registered is that the corporations should refuse to do it. It may be said that the Council can strike his name off, but I should be very sorry to see the Medical Council in the inconvenient position of going to the Queen's Bench, and being obliged to say, "Last January we registered this man, but this March we come and we beg your leave to remove him." By that I mean that the man can appeal at once from this Council either to the Privy Council or some other court, and then we should have to justify ourselves for our change of front in wishing to undo that which a few months ago we had solemnly done. The point which I wish to make quite clear to the Council is that by the Bill, as it at present stands, the right to be registered is acquired by the refusal of the corporations to register. (Applause.)

Dr. QUAIN said he wished Sir James Paget had said this a few days ago, when he brought on his motion upon the same clauses. He had failed to make Sir William Gull, or apparently any member of the Council, understand the objection to this clause, which, to his mind, was perfectly clear. A man may be registered with his qualifying certificate in spite of being a bad character. Supposing him to be once registered, the College of Physicians finds the man has been guilty of the most unprofessional conduct—he has advertised in every low form that can be conceived—and informs the Medical Council of this. The Council would have to answer, "Oh, we cannot strike him off, it is not in our Act of Parliament; he must be guilty of some great crime or misdemeanour." That was the result of Clause 5; all control over professional conduct was lost. It was plain his Grace the Duke of Richmond did not understand it, because last night, in the House of Lords, he stated that he put in the clause to please the licensing bodies.

Mr. SIMON having briefly replied, the motion was put to the vote and unanimously adopted.

Dr. ANDREW WOOD then moved—"That, seeing that her Majesty's Government have resolved to refer to a Select Committee of the House of Commons the question of the constitution and working of the Medical Council, as one of importance and difficulty, it seems expedient that the other questions connected with medical reform, some of which are no less important and difficult than that of the constitution and working of the Medical Council, and in regard to which much diversity of opinion exists, should also be referred to the same Select Committee for investigation and report, previously to further medical legislation." He strongly urged the necessity for further inquiry before a Select Committee respecting the proposed method of depriving the various educational bodies of their ancient privileges. The College that he had the honour to represent could boast of a charter from James IV. of Scotland, and it was now proposed by a crude and ill-digested measure to deprive those ancient bodies of those duties and privileges which they had so well exercised in the past. Some observations had been made at the council-table in disparagement of the claims of the Scotch medical colleges, and the comparative claims of the two countries were spoken of as though England were a very superior place indeed. Still, he supposed it would not be denied that Scotland had sometimes helped the progress of medical science. Where would the Hunterian Museum be but for Scotland? Where would be the great improvements in obstetric art but for Scotland? Where would pathology in England be but for Matthew Davis, who was the founder of pathological investigation in the United Kingdom? Where would those brilliant discoveries which were made in regard to the nervous system be but for Scotland in the person of Sir Charles Bell? Sometimes the English were glad enough to go to Scotland for good teachers. They had taken away Lister and Syme, although the latter came back again. They had also taken away Fergusson, and, to end the recital of Scottish worthies, he might instance the case of Dr. Matthews Duncan, an honour to his profession, and a very distinguished man. If charges were to be made in disparagement of Scotland, he would like to see them, not whispered into the ear of the Privy Council authorities, but openly and face to face before a Select Committee of the House of Commons, who would take evidence upon the subject, who would examine the returns and the examinations, and who would say whether with 30 per cent. of reductions they were prepared to increase the severity of the Scotch medical examinations, when it was openly confessed by the military and naval authorities that there was the greatest difficulty in inducing young men to join the services. He might speak feelingly upon this subject, for a son of his had recently volunteered to go to Zululand, and it had come to his knowledge that the greatest difficulty was found in getting medical officers to accompany the reinforcements. The learned doctor then read extracts from the debates in the House of Commons, which showed that there was such a diversity of opinion, and so many amendments, that the subject was not ripe for immediate legislation. As a good Conservative he had looked forward to the time when, with a strong Government, that party would deal fairly but firmly with the question of medical reform; but he was almost afraid, from the Lord President's way of dealing with the matter, that the Government was too strong, and might push through an incomplete measure this session by what the Liberals delighted to call a mechanical majority—a phenomenon not unknown in the Medical Council. (Laughter.) In concluding an able and eloquent address, he said that it was better for all concerned to have an inquiry. It was better for those who advocated the Bill in order to justify what they were doing; it was better for those opposing the Bill in order that they might know whether the opposition was worthy of being maintained; it was better for the licensing bodies, eight of whom, at least, would not be content unless they had had a preliminary inquiry. He did not see why any man in the Council should object to the inquiry which he asked by this resolution. Were they afraid of the inquiry—were they afraid that it would be proved in the Select Committee that they were going too far? If they were not afraid of that, why should they not go before a Select Committee, where both sides would be heard, and the evidence balanced by impartial people. The Scotch corporations were not afraid to go before them; they were quite ready to take their trial, and to have everything laid bare, whether for or against them, in order that there might be no longer continual insinuations, accusations, and whisperings against them. If the Bill were passed without previous inquiry, there would be certain to be continuous irritation and injustice, which would place the profession in a very unpleasant position. But if there were an inquiry, whatever the result come to by the Select Committee might be, whatever report they might deliver, whatever Bill might be founded by Parliament upon that report, then it would be unwarrantable, it would be disloyal after that to do anything to impede the progress of a measure so founded. Therefore it was that he asked the Council not to make a foregone conclusion of this matter, but to weigh well what he had said, which, whether well argued or not, had been an honest statement of his thoughts upon the subject.

The motion was seconded by Dr. SCOTT ORR.

Dr. HUMPHRY moved the following amendment—"That the subjects regarding which legislation is proposed by the Lord President's Bill now before Parliament have been long and sufficiently discussed, and that the continued uncertainty respecting legislation upon them retards the improvement of medical education, and is detrimental to the interests of the profession and the public; and the Council trusts that the Lord President's Bill, with such alterations as have been or may be suggested by the Council, will be passed during the

present session of Parliament; and the Council is of opinion that the reference of the Bill to a Select Committee of the House of Commons is not necessary." He would not attempt to disparage the claims of Scotland, but when Dr. Andrew Wood cited such cases as Hunter, and Bell, and the other worthies that he had mentioned, and when he had asked where would the cause of medicine in England have been but for them, he might have gone on to ask, where would Hunter, and Bailey, and many other of those noble Scotchmen have been if it had not been for England. (Laughter and applause.) Dr. Wood had warned the Council against hasty legislation, but he had at the same time brought before them proofs of the enormous amount of consideration which this subject had already had both in the Medical Council and in Parliament. The truth was that the matter had been thoroughly exhausted. Moreover, last year, Dr. Wood, and all Scotland with him, was prepared at once to support the Bill of the Lord President. Therefore, he could not fairly bring a charge of hasty legislation against the present Bill. The fact was that the legislation had been too long postponed, and had now taken a direction which was somewhat unfavourable to Scotch views; that was the real reason why the Scotch representatives desired further delay and an inquiry before a Select Committee of the House of Commons. One thing was quite clear—that the separate examinations of the nineteen bodies could not be continued; the only question was how they could be reduced into one, at the same time doing as little damage as possible to the medical authorities. A little consideration would convince Dr. Wood and those who went with him that each change which had taken place in the proposed legislation upon this subject had not been in a direction to please them, but had always been in the direction of placing the examining power in some central authority, and to remove it more and more from the existing corporations. The true policy, therefore, was to make the best of the present Bill, so as to set this long-debated question at rest, and leave the Council at liberty to proceed with the duties imposed upon it by Parliament.

Sir WILLIAM GULL pointed out that the Council had to advise the Government how to legislate, and instead of doing so they were proposing to ask the Government to send the matter to a Committee of the House of Commons for consideration. They had been discussing during two sessions how they should advise the Government to legislate, and they ought not now after all to hold back. There was no reason why the establishment of a joint board for each division of the kingdom should be, as had been represented, a restraint upon the teachings of the corporations, because one of the objects of the scheme was to allow freedom of action. Nothing could be more dangerous than for the Council to leave members of the House of Commons to legislate for the medical profession, the requirements of which they could not be expected to understand. He would later on propose that the constitution of the Council should depend upon itself, for that was the only way in which it could do its duty to the profession. What was the Council for but to see to the advancement of the profession, and to advise the Government in all matters connected with it? And it was now proposed that they should voluntarily stultify themselves. Sir Dominic Corrigan had well said that was a very easy thing for them to do—(a laugh),—but he trusted they would avoid doing so. The Council had carefully gone through the clauses of the Bill step by step, and he hoped there would be a large majority in favour of the amendment.

Sir DOMINIC CORRIGAN, in supporting Dr. Wood's resolution, was sorry that Sir William Gull should have said that the Queen's University was in a state of "acknowledged inefficiency." Observations which could not be sustained should not be made, and he (Sir Dominic Corrigan) must say he attached more value to the opinion expressed by Dr. Humphry, who had inspected that school of medicine, and had thought so well of it that he recommended the adoption of some of its features in other places. The making of such representations as Sir William Gull had thought proper to put forward was not a proper way to treat the great subject before them, and it would be at least one-sided for the Council to refuse to recommend such an inquiry as was proposed, which was the more required as they had never had the result of the pocket inquiry by Parliament into the state of the medical profession in 1832-33, the documents connected with that inquiry having been destroyed in the great conflagration of the House of Commons. Were they now to rush into legislation without any inquiry or investigation at all, by refusing to request the appointment of a Select Committee to examine into the subject? Sir William Gull said the Council had considered it fully for two years, but the Reform Bill and the question of church reform had been before Parliament for years and years before they were made the subject of final legislation. The only true mode of dealing with the matter was to have a public inquiry instituted upon it by the House of Commons. There was no proof whatever that immediate legislation was imperatively required. (Hear, hear). Without a single report during the twenty years of the establishment of the Council against the manner in which the universities and corporations had conducted their educational systems and examinations, it was proposed that they should now be deprived of their authority and of their power of granting degrees. With regard to the provision of the same privileges for the general public as were insured for the Army and Navy, a medical board should be established for the efficient examination of all candidates for the public dispensaries, so that miners, labourers, soldiers, and sailors, should all have the same safeguard. That would leave all the universities and corporations in possession of their own privileges. In conclusion he begged to most cordially support Dr. Wood's motion.

Mr. SIMON recalled Shakespeare's lines,

> "To-morrow, and to-morrow, and to-morrow—
> Creeps in this petty pace from day to day,"

and protested against unlimited procrastination. There should be something like loyalty in maintaining the deliberate decisions of the Council. Only yesterday they had "appealed from Philip drunk to Philip sober"—(laughter)—for Philip drunk had upset some of the most deliberate decisions that had been previously arrived at. If the Council meant to make any real progress, they must have some regard to finality of decision, and minorities must learn to respect conclusions with which they did not agree. As in all the great concerns of life, so with the work of this Council (which was among the greatest), and he would venture to submit that, unless minorities in the Council would consent to give way in minor matters, progress was altogether impossible. The question of the establishment of joint boards, after having been settled on a number of occasions, should not be re-opened and treated as though it had never been considered. As a Council he thought they had now had their say on the matter, and it should now be left for Parliament alone to decide whether a Committee should be appointed to still further consider the subject. Why, if it were deemed so necessary, had not the College of Surgeons of Edinburgh asked for a Committee last year?

Dr. ANDREW WOOD: That is exactly what we did ask for—a Select Committee.

Mr. SIMON said they had no security, even if a Select Committee should be granted, that those who were now dissentients from the Bill would accept their decision.

Dr. SCOTT ORR considered that the interests of the profession demanded that the Bill should be referred to a Select Committee. The question had been looked at too much from an English point of view; and when it was said that the Council had again and again approved the main principle of the Bill—viz., the formation of a joint board for the Kingdom—it could not be denied that the Council had been overweighted in the matter on the side of England as against Scotland and Ireland.

Sir WILLIAM GULL: England is the larger country.

Dr. SCOTT ORR said the difficulty of fitting Scotchmen and Irishmen with English spectacles was no doubt very great; but the converse was equally true. He denied that Scotch students were passed too easily in examination. Great improvement had been made in medical teaching, and especially in Scotland, where the examination tests were now so severe as to tax the energies and intelligence of the students to the utmost. The results of the clinical examinations in Scotland showed that the Scotch corporations were doing all they possibly could to elevate medical education; and it should be borne in mind that a large proportion of the rejections in Scotch examinations were of persons who had been educated elsewhere. (Hear, hear.) In what way would they be benefited by the establishment of this Conjoint Board, of which so much had been made? The difficulty of establishing such a board in England would be very great; and, seeing that there were forty-eight

examiners, what would become of uniformity? But in Scotland the difficulty of forming such a board would be ten times greater, because it did not seem possible with the universities and bodies which had now the power of examining and of granting licences. Again, they would have to travel from one part of the country to another, involving large expense—to be borne by whom? Surely not by the students, who were already overweighted with fees! Such a conjoint scheme would certainly prevent a large number of candidates who now went in for university degrees ever attempting it. When the Dentists Act was passed last year, a very good opportunity was presented for the establishment of a Conjoint Board; but nothing of the kind had been attempted, and provision had been made in the Act instead for the constitution of no less than thirteen portals for the entry of dentists into the profession.

Professor Rolleston: It was not our Act, it was Sir John Lubbock's.

Dr. Scott Orr further remarked, with regard to Sir William Gull's question, what the Council was for but to decide on these matters, that so much diversity of opinion had been expressed in the Council upon this subject that the appointment of a Select Committee was imperatively required. They did not want the opinion of a Committee upon the Bill itself; but they certainly required that evidence should be taken to elucidate the points of difference which had been raised in the Council.

On the motion of Mr. Macnamara the debate was adjourned.

The Council adjourned to the morrow.

Fifth Day—Saturday, March 22.

Professor Macnamara (who had moved the adjournment of the debate on Dr. Andrew Wood's resolution), in supporting the amendment, deprecated the notion that the Council should present itself to the Government in the position of having failed in solving the difficulties attending the question of medical reform, and wishing, therefore, to throw it upon the shoulders of a committee of gentlemen who could know nothing whatever about the matter, and whom it would be necessary to instruct by taking the evidence of the individual members of the Council upon the subject of medical education. The result would probably be a Bill most disastrous to the best interests of medicine. This was not merely a question of pounds, shillings, and pence; it was a question in which the honour and the dignity and the true interests of the profession were concerned. The tribunal to which it was proposed to submit the question of medical education was as unfit to discuss it as this Council would be to discuss a knotty point of law. It must not be supposed that he (the Professor) was enamoured of conjoint schemes; if he had his own way he would do away with them. But it was too late in the day to retrace the step that had been taken. It was impossible for the Council to shut its ears to the voice of the public outside. It was said that this important question should be referred to a Select Committee of the House of Commons, because the question of the reform in the representation of the Council was about to be submitted to that tribunal; but there was not the slightest analogy between the two cases. The question of medical education had been thoroughly threshed out by the Council; whereas (whoever was to blame for it) the fact was that the Council had never discussed the reform of its own constitution, and he believed the Lord President had given a severe but well-deserved rebuke to the Council for its lethargy in this respect by referring that question to a Select Committee. On July 18 last eighteen members of the Council had expressed themselves thus to the Lord President—"That the constitution of this Council needs revision, and that the Council do represent to the Government that at the first meeting after the meeting of Parliament they will consider what reforms in its constitution are required, and will report to the Government accordingly."

Sir William Gull: Not to the Government; "report to this Council," is it not?

Professor Macnamara said he had read it quite correctly. But even if it were admitted that the question of the constitution of the Council were a fitting subject to be referred to a Select Committee of the House of Commons, he repeated that there was no analogy between that and the question of medical education, with which nobody could possibly be more fitted to deal than the existing Medical Council. A great deal had been written in the medical press commenting in severe terms on the neglect of duty of this Council, forgetful altogether of its limited powers, and ignoring altogether the great good that it had done. Too much stress, however, must not be laid upon these adverse criticisms; for he (Professor Macnamara) had had his turn at newspaper writing, and he was able to estimate the value of the editorial "we." He happened to know that the person who wrote so learnedly, so impressively, ay, and so dictatorially, upon this question of medical reform, had probably never been inside a hospital from the time he got his degree. (Cries of "Name!") I will not give the name, but you know him as well as I do. (Laughter.) He would go a step further: not only had these writers never been inside a hospital or any school connected with medicine or surgery, but he did not believe they had ever attended one of the examinations they presumed to criticise. Therefore, these severe critics knew nothing whatever about the way in which the examinations they condemned were conducted. Such was not the opinion of those best able to judge. On the very day before he left Ireland he had a consultation with a physician whose name commanded the respect of the whole profession—the Senior Physician to the Mater Misericordiæ Hospital,—and he said that in consequence of the labours of the Medical Council the education of the profession in Ireland was never in so sound a condition as it was at the present moment. (Applause). However, the Council was in the position of the turkey, who, in reply to the question of the cook, "How would you like to be dressed?" said, "I do not want to be dressed at all." (Laughter.) The cook replied, "That is not the question. You must speak to the point and say how you would like to be dressed." And the conjoint examination scheme having been adopted, the only question for the profession to consider now was how it could be applied so as to do as little mischief as possible to the scientific progress of the profession. It was greatly to be desired that this medical agitation could be put an end to, and that the bodies might be left to do their own work in good earnest. He trusted that this Council would not stultify itself upon this question by saying to the Government, "We have spent thousands of pounds; we have spent what is more valuable than money, an enormous amount of time; have devoted the best minds of our profession to this subject of medical education: but all that energy, all that labour, all that time, and all that money, have been completely wasted, and we wish to throw the question now back upon a Select Committee of gentlemen who know nothing on the face of God's earth about the subject." (Applause.)

Dr. Haldane supported the resolution of Dr. Andrew Wood, and stated that the reason given by Mr. Macnamara of the ignorance of the Legislature upon the subject was the very reason why he thought the mind of Parliament should be enlightened by having an inquiry before a Select Committee. It was perfectly true that Parliament was ignorant upon the subject, and he feared that their minds were influenced—or rather had been poisoned—by *ex parte* statements. (Hear, hear.) He quoted as an instance of this the statement of Dr. O'Leary in the House of Commons, that, whereas in England and Ireland students were obliged to study four years before they could pass their clinical examination, in Scotland only half that time was required. That was an absolute misstatement of a matter of fact. (Applause.) There was no division of the United Kingdom in which the recommendations of the Medical Council had been more faithfully carried out than in Scotland. The latest example of statements made to the Legislature in a very reckless manner was no later than the day before yesterday, when the Lord President's Bill was brought into committee in the House of Lords, for Lord Emly said that he had been informed that a candidate had gone up for a medical examination in Dublin, and had been rejected, and within three weeks he obtained the diploma of the Royal College of Physicians, Edinburgh. He was not in a position absolutely to deny that except in general terms, because he had not had time to investigate the matter, but he was morally certain that it was a mere statement communicated to Lord Emly by some persons anxious to enforce the institution of conjoint examination, and he ventured to say that it was at least injudicious of the noble lord to make such a serious charge against a respectable body without having previously

ascertained its accuracy. It was for these reasons that he was anxious to have the whole question of medical reform considered and reported upon by a Select Committee of the House of Commons.

Professor ROLLESTON warned the corporations that if this endeavour to appeal from the decision of the Council to Cæsar was carried out they might find themselves jumping out of the frying-pan into the fire; they might get a real Staats-Examen. If these misstatements and misrepresentations about professional matters, and if this interference by Government in a direction not desired by the profession, were done in the green tree, what might not be done in the dry, amidst the official manœuvring of a Government department which every professional man must regard with the utmost aversion? He had heard, with very great delight, Dr. Andrew Wood vindicate his own country, and point to the great obligations under which she had laid the rest of the United Kingdom and the world. It was true Scotland had held aloft the torch of science at a time when England was only thinking of opening new coal-mines, or building new cotton-mills, or, generally, money-grubbing. But Dr. Wood ought to know that gratitude does not go for much in politics. Very little indeed. Again, he said how much gratitude was due to John Hunter. True again; his works and his museum were not to be forgotten. The profession was very grateful; but the question was, would the House of Commons be grateful? People did not do that sort of thing south of the Tweed. Here a man might spend all his life in founding a museum or in some other great public work, and when he had made it over to the State he would be treated little better than a dog. How was John Hunter treated? He was abused like a pickpocket; he was struck down by little people—those whose children were now building his sepulchre worried him into an early grave. (Applause.) He wished to clear the minds of Scotch members of the delusion that any amount of weight is assigned to merit down here in England. This might be seen in a larger assembly than the Medical Council. If it were not for the leaven of Irish, Scotch, and Welsh in the country, people of his (Professor Rolleston's) way of thinking would not count for much. Therefore he was with the Scotch so far as that was concerned. But they must read the signs of the times. The Government was in some respects like the Sibylline Virgin. Each year the demand came and was more exacting. He would therefore give them the old advice: "Agree with thine enemy quickly whiles thou art in the way with him." He had more than once held before the eyes of the corporations the bugbear of the Staats-Examen. ("Hear, hear," from Dr. Wood.) He would read to them a statement which had emanated from the Royal College of Surgeons of Edinburgh—"That if it be proved upon inquiry that a large measure of medical reform be necessary, infinitely more effective and practical than the conjoint board system would be the institution of the Staats-Examen." In that sentence they could not only hear the voice of Esau, but see his fine Roman hand. (Laughter.) Such a result would be not to perform the Eastern operation of the "happy dispatch," but to ask the Government to perform it for them. However, he knew very well the *ingenium Scotorum*: the Scotchmen would never stand the Staats-Examen. They would rather do as the Americans have done. What had happened in the United States was this—they had got perfect free trade in medicine; there were no diplomas, they had disestablished the medical church just as ecclesiastical churches in England and other countries had been disestablished. He believed the result of a Staats-Examen would be to introduce perfect free trade in medicine, and people would pass their own judgments for themselves in matters medical; and pretty judgments they would be! They would choose their own doctors without any advice from the corporations; and this result would be brought about by the ill-advised line which the corporations themselves were now taking. He wished to put on record, having in view the honour of the profession, the interests of the public, and the interests of science, these remarks which he had made really in the interests of corporations. Let not the Council make the humiliating confession to Government that they were not fit to undertake the responsibilities with which they had been entrusted ever since 1858. The Government was never averse to issue a commission to plunder the universities, as they had done in the case of the English when they wished to placate the Scotch. (Laughter and applause.) The extension of this Government interference was about the worst thing for the true interests of science. What was the result of it in France and Germany. In France they had the phrase, "La science officielle." He trusted they would not give up to other hands the torch of science which Scotland had so nobly held aloft, in order to have "la science officielle" in its place. Again, the French said of themselves, "Chez nous le Gouvernement fait tout; c'est a dire, fait rien." (Loud applause.) The learned Professor, in conclusion, supported the amendment of Dr. Humphry.

Mr. TEALE deprecated the resolution of Dr. Andrew Wood, as being in contradiction to what the Council had done during the last ten years. Nobody would question the excellent quality of medical education in Scotland; but we must not mix up Scotch education with Scotch qualifications. And it must not be forgotten that some of the failures of Scotch graduates might be due to the fact that an impression had seemed to prevail amongst English students (he did not say it was not an erroneous impression) that in Scotland they could get their qualifications on easier terms than in England: the result being that those who were afraid to face the English examination, or who had failed, sometimes went to Scotland.

Dr. SCOTT ORR: And they find out their mistake when they get there.

Dr. AQUILLA SMITH supported Dr. Andrew Wood's motion, undeterred by the threat of some speakers, who said that the Council would be stultifying itself by so doing; because the duty of a Select Committee would be to collect evidence as a basis for well-informed legislation in Parliament; and such Committee would have the opportunity of getting it from quarters and testing opinions in quarters that this Council was not able to reach. Lord Errington's Bill was a very fair measure as far as it went, but there were one or two points upon which he wished to remark. It was agreed on all hands that if a conjoint scheme ever came into operation the standard for examination must be what is termed a minimum; but, according to Lord Errington's Bill, the standard would be high, and the result would be analogous to that which had been produced by the high standard required by the Army and Navy Board—viz., that of establishing a higher standard of education amongst the examining bodies, instead of opening the profession to all alike by the minimum standard of the conjoint scheme. While the result of the labours of the Council had been to greatly improve the standard of medical education, he feared that, as far as preliminary education was concerned, it had not been improved in the same way, and that the students still resorted for this purpose to "grinders." He thought the time had now arrived for reconsidering the whole question of preliminary education, which was in many instances a mere sham.

Dr. PITMAN characterised Dr. Andrew Wood's resolution as one of the most mischievous ever submitted to the Medical Council. It was a confession of incapacity to deal with the duties entrusted to the Council by the Act of 1858, and in its purpose it was nothing more nor less than an ingenious device to postpone legislation altogether, and to defer the settlement of a question which has occupied the Council for the last ten years.

Mr. TURNER, in supporting the resolution, said he was not surprised that Dr. Pitman and the other English members of the Council objected to any extension of inquiry in the direction now sought, because the Bill of the present session was one which had been constructed on purely English lines and on the advice of the English members of the Council; in fact, it might be regarded as an English Bill. As such, no doubt, it was admirably constituted to the peculiarities of England, but it was not at all in accordance with the views of the Scotch bodies nor suited to the peculiarities of the existing system of medical education in Scotland. It was therefore that the Scotch members opposed it, and would offer it every opposition in their power, and endeavour to obtain that full inquiry into the matter which would result in a measure better calculated to serve the purpose which they all had in view. No doubt the English members possessed an advantage over the Scotch in being able to exercise influence in high quarters. What more natural than that when they were called in to recommend a dose of physic to a legislator they should also throw in a little recommendation as to medical legislation! (Laughter.) The

Scotch representatives had no such opportunities, and they were compelled to appeal to Parliament, and would continue to do so until their request was granted, because they had no intention at all to submit to a Bill constructed on English lines, and not adapted to the Scotch institutions, without a very strong, active, and energetic protest against it. It was necessary that Parliament should be enlightened upon the subject, because gross misrepresentations had been made; and, amongst others, there was a charge brought in the House of Lords that a student who had failed three times in England went to Scotland and passed. And these charges having been made, the Scotch bodies were entitled to that full and fair inquiry which they would obtain before a Select Committee of the House of Commons. (Applause.)

After some observations from Dr. Pettigrew, also in support,

Dr. Storrar said that he was now an old member of the Council, and some years ago he used to take a more active part in its debates; but of late he had found others, with greater facility of expression, stating his views so clearly that he did not care, in halting sentences, to repeat what they said. This, however, was an important motion, and he believed he could contribute something new to the discussion. He would first deal with Dr. Pettigrew's statement that if the conjoint examination were established in Scotland it would do away with the inducement to gentlemen of going there to take the Scotch degrees. His experience with regard to the University of London was the very reverse of this; because, just in proportion as the standard of their examinations had been raised, students had come to take the London degree. Professor Turner, Dr. Andrew Wood, and several other gentlemen from the North had complained that the Bill was framed entirely on English lines, and that it was wholly unsuited to Scotch requirements; but the remarkable thing was, that not a single Scotch voice had been raised to inform the Council what were the peculiar characteristics in the Scotch requirements to which the principle of the conjoint scheme would be antagonistic. Dr. Andrew Wood had claimed Hunter, and Bell, and other well-known men of science, as the creation of the Scotch medical schools, but the fact was that these worthies did not owe their medical education to Scotland at all. Sir Dominic Corrigan had advised the Council not to legislate in "hot haste," forgetting that the Bill of this session was the outcome of a series of discussions upon medical reform dating from the year 1828; and he (Dr. Storrar) had taken a part in almost all of them. The learned doctor then gave an historical account of the attempts at legislation which had culminated in the Bill of 1858, and drew an amusing picture of the antagonism which had existed between the Scotch and the English, and later on between the Scotch and the Irish examining bodies; whereas now, he said, the effusion of Sir Dominic Corrigan over Dr. Andrew Wood was perfectly touching—it was really quite enough to temper the east wind of a March day. (Laughter.) In conclusion, he said it was plain that, whatever might be the opposition of the Scotch or Irish representatives, legislation in the direction now proposed must take place, and it would either take the form of the Bill now before Parliament, which was a final attempt to reconcile the interests, or the supposed interests, of the medical authorities with the principle of a Staats-Examen, or else the medical authorities must make up their minds to bid good-bye to many of their privileges. Indeed, he thought it highly probable that, as the result of their obstinacy, there would be a Staats-Examen instituted this session; and it would be a Staats-Examen not such as Sir Dominic Corrigan desired or as Lord Errington's Bill proposed, merely receiving for examination those men who had been already passed by the medical corporations and the universities, but a Staats-Examen on the lines of the Bill that came out of the last Committee of the House of Commons—to put men on the Register, leaving them to go to the medical bodies or universities or not, as they chose—a qualifying examination for the purpose of registration, which would leave, in fact, to the corporations or universities nothing. Did Dr. Andrew Wood suppose that Parliament, after the medical authorities had been declared to be insufficient for the exercise of their powers, would put an examination board over their heads, but preserve their position or their income by obliging every man who came before it to pass one or more of the examinations of the medical authorities. Rather Parliament would say, "Why cumber they the ground?" and put them aside altogether. Referring to a public dinner at which he had been present, where Lord Ripon replied for the House of Lords, he said that the noble lord had immediately plunged into the subject of the conjoint examination, and said he was thoroughly in favour of its establishment, and that no difference of party would prevent his giving his cordial support to the Duke of Richmond in carrying through a measure on the lines of the conjoint scheme. And this assertion was met by a universal shout of applause. The fact was that in England the great mass of practitioners were heart-whole upon this subject; and if the Government did not carry this Bill they would carry one which would be much more stringent. On those grounds he urged the adoption of the amendment of Professor Humphry.

Sir James Paget: It seems to me that Dr. Andrew Wood and those who act with him are perfectly within their rights in referring the verdict of this Council to what we may call the court of appeal of a Select Committee of the House of Commons. They have had numerous majorities against them here, and they therefore naturally appeal to a higher tribunal, and no one blames them for doing so. But they should not ask us to join them in that appeal, and to reverse our own majority. It is as if the plaintiff in a cause, having lost his verdict, should straightway ask the defendant to join him in proceeding to the court of appeal. But in this case they would be appealing from the higher court to the lower, because it is inconceivable that within any reasonable space of time a Committee of the House of Commons can be so informed upon the question of medical examination and education as to be able to report upon the matter half so well as yourselves. (Applause.) Therefore, without the least suspicion of political influence, I should very much deprecate referring this matter to a Select Committee, because I do not know what may come out of it; but I have the strongest suspicion that it will be some measure more stringent, in the same direction, than the Bill of the Lord President. One thing is certain, that they will put an end to the existence of nineteen separate examining boards. That is a thing which commends itself to what may be called the common sense of the House of Commons. They will say that system cannot be right which gives the power of conferring equal rights to practise upon nineteen separate bodies, nor can it be supposed that there will be such supreme virtue in those bodies that they will never submit to the smallest temptation to lower the tone of their examinations. As to the establishment of a Staats-Examen, pure and simple, I regard it with a feeling of alarm, because the result would be that we should be bound by Parliament. What would be the guiding principles of such a system—personal conduct, honour, knowledge, the humanity of our profession? These are not the qualities that we could hope for from such a governing body. But these are the very qualities which we prize most highly. (Cheers.) Most of all I should be alarmed at the proposal contained in Lord Errington's Bill, which requires every person who has a diploma to pass a State examination. That is as much as to say that our universities and educational bodies are not fit to be entrusted with the duty of testing the qualifications of candidates for our profession unless governed by the final control of a State examination. I cannot see any reason for maintaining any one of the authorities if their work is to be supervised by a central board in that way. The Army and Navy examinations have been referred to as an analogous case of State control, but it must be remembered that those examinations were instituted for the purpose of selecting the best men who should compete for high prizes which the Government had to give away. No doubt a considerable number of indolent or incompetent men went up for those Army and Navy examinations, hoping to run the chance of getting through; and these naturally got turned back, the competent men only passing. Therefore I say there is no analogy whatever between the two cases; and we have no case whatever upon which to found an analogy. My opinion is that a Bill like that would be the death-knell of the corporations; for I would say that it is far better for them to die than to live under such circumstances. There is only one position that the universities can assume with dignity, and that is to accept the central examination, and to confer their degrees upon those who choose to come and look for them. Doubtless some will perish. But others will flourish. The liberty conferred upon the Royal College of Surgeons to grant a

registrable degree never had, nor showed the least likelihood of having, the smallest influence upon the number of persons who applied for that degree. The College of Surgeons made its reputation, made its wealth and its influence, when its diploma was absolutely valueless as an introduction to practice. It made its reputation by simply doing all that it could do for the advancement of medical science, and by the fact that there never has been a person of any distinction in this metropolis in the surgical profession who has not shared that reputation with the College to which he owed his instruction. We have passed through worse times than these, and we have maintained our position solely by the reputation which our diplomas have won through those to whom they were attached. It may be asked, Then why not let things drift, and have a Staats-Examen pure and simple? There are various reasons why such a thing is to be deprecated. If there is a Staats-Examen it must be either conducted under the guidance of the Privy Council or of this Medical Council. I have remembered times when medical affairs might have been entrusted to the wisdom of the Privy Council; but those times, I think, have passed. And if it be left to this Council it is my clear conviction (with all the respect I feel for it) that for the purpose of determining all the details of examinations in anatomy, surgery, midwifery, and the rest, it is very nearly quite unfit for the duty, and certainly not to be compared for fitness with the several governing bodies and authorities. (Applause.) On these grounds I shall vote for Professor Humphry's amendment.

Dr. ANDREW WOOD, in reply, said it would be unpardonable to occupy much of the time of the Council after the exhaustive way in which this question had been debated, but he would not like a division to take place without endeavouring to answer some of the arguments which had been brought, and to expose some of the fallacies that had been started against his resolution. He would deal first with what had been said by Sir James Paget, because he knew that the Council always attached great importance to anything which fell from his lips. He had stated that any attempt to stave off legislation now would land the corporations in greater difficulties. But by the present Bill it was proposed to take away those very privileges which he challenged anyone to say that they had abused. And to whom were they to be handed over? Why, virtually to the Privy Council. Every step would be under the supervision of the Privy Council—and that meant under the supervision of the Lord President for the time being. Sir James Paget had very kindly drawn his attention to a paragraph in that day's *Times* which showed exactly what things might come to if centralisation were carried out to its full extent, and the profession were left under the *ipse dixit* of a Lord President of the Privy Council. In Germany there was what was called a Ministry of Worship, Education, and Sanitary Affairs, the present occupant of that office being Dr. Falk; and in Prussia he had power to issue ordinances in relation to the medical profession. He carried his domination beyond the domain of education and examinations, and had recently issued an order regulating the very fees which physicians and surgeons could charge their patients. He would read to them the ordinance issued last October upon this subject. Medical men were entitled to charge for the first visit to a sick person the magnificent sum of two marks—equal to 2s.—(laughter)—a fine specimen of centralisation! for each subsequent visit 1s. (Laughter.) Where several persons belonging to the same family, and dwelling in the same house, have to be treated at the same time, only half of this fee, that is 6d., is to be charged. (Loud laughter.) When there is a consultation—Sir William Gull will be interested in this—(laughter)—of several physicians—this, you see, is not any of your ordinary general practitioners like myself, but the great swells of the profession like Sir William Gull—(loud laughter)—each physician will receive as his fee for the first consultation 5s., and 3s. for each similar or subsequent consultation. (Loud laughter.) If a patient visits the physician at his residence—perhaps you expect he is going to get his guinea?—not a bit of it!—the fee to be charged is 1s. 6d., and for each subsequent visit seventy-five pfennigs—equal to 9d. English currency. (Loud laughter.) What glorious times for the profession! They would soon arrive at the millennium under such a system of centralisation. There was a fine instance of laying a great profession under the iron rod of a single individual, who was entitled, by his *ipse dixit*, to issue any ordinance not only for the examination and education of the profession, but for the charges that they are entitled to make for their attendance! A Staats-Examen instituted in this country, which would have the effect of superseding all the other medical institutions, would produce results equivalent to this domination by Dr. Falk. He was surprised to find that the Fellows of the Royal College of Surgeons were unanimous in their desire to commit suicide. But when it was said that the profession was unanimous on the subject, he did not admit that Dr. Storrar was entitled, because a marquis got up and made a speech after dinner, and elicited loud applause, to draw the conclusion that that represented the opinion of the whole profession. With regard to the College which he (Dr. Andrew Wood) represented, the Fellows were unanimous in rejecting this measure, and he believed that there was no more unanimity in the profession in favour of this Bill than there was in this Council. On the other hand, he claimed for this question the right of that free and fair investigation which would be obtained before a Committee of the House of Commons, where there would be no earwigging in high places, where no hole-and-corner influences could be brought to bear; but where, upon evidence given in a public court, a full investigation of all the arguments *pro* and *con.* could be had, and the mind of Parliament enlightened on a subject upon which at present it seemed to be very much in the dark. (Applause.)

Professor Humphry's amendment was then put to the vote and carried by a majority of 14 to 8; and was afterwards affirmed as a substantive resolution; the division being as follows:—*Majority:* Dr. Pitman, Sir James Paget, Mr. Bradford, Dr. Rolleston, Dr. Humphry, Dr. Pyle, Dr. Storrar, Mr. Macnamara, Dr. Leet, Rev. Dr. Haughton, Sir William Gull, Mr. Simon, Mr. Teale, and Dr. Hudson. *Minority:* Dr. Haldane, Dr. Andrew Wood, Dr. Scott Orr, Mr. Turner, Dr. Pettigrew, Dr. Aquilla Smith, Sir Dominic Corrigan, and Dr. Fergus. Did not vote, 2—the President and Dr. Quain.

It was then moved by Dr. QUAIN, seconded by Dr. PYLE, and agreed to—"That the report of the Finance Committee be received and entered on the Minutes."

Dr. AQUILLA SMITH moved, and Dr. ANDREW WOOD seconded, a motion to the following effect:—"That a fee of five shillings be paid for the restoration to the Medical Register of a name erased therefrom (by neglect of duty on the part of a registered medical practitioner) under Section 14 of the Medical Act (1858)."

Mr. BRADFORD then moved, and Dr. ANDREW WOOD seconded—"That the following communications in regard to the Lord President's Medical Act Amendment Bill be received and entered in the Minutes":—

Council Office, March 6, 1879.

Sir,—I am directed by the Lord President of the Council to transmit to you the enclosed copy of the Medical Act (1858) Amendment Bill now before Parliament; and I am to request that you will lay it before the Society of Apothecaries, and that you will move them to favour me with any remarks they may desire to make in regard to Section 36, which provides for the partial repeal of 55 Geo. III. c. 194, intituled "An Act for better regulating the practice of Apothecaries throughout England and Wales." I am, Sir, your obedient servant,

J. R. Upton, Esq., C. L. PEEL.
Society of Apothecaries, Blackfriars, E.C.

Apothecaries' Hall, Blackfriars, E.C., March 13, 1879.

Sir,—I have to acknowledge the receipt of your letter of the 6th inst., which I have laid before the Society of Apothecaries.

I am desired by them to state that the only remarks with which they wish to trouble you on the subject therein referred to are the following:—

By the 2nd Section of the Bill the Act is to come into operation on the first day of January, 1880.

By the 36th Section of the Bill the Acts mentioned in the Fourth Schedule to the Bill are repealed, if no date is mentioned in the Schedule, as from the commencement of the Act.

Under the 4th Section of the Bill, the Medical Board to be established may not be so established until the last day of June, 1881.

It appears, therefore, to the Society that as the Fourth Schedule is now framed in reference to the "Act for better regulating the practice of Apothecaries throughout England and Wales," the Society would, between the date of the Act coming into operation and the period when the Medical Board should be established, be without any power to grant certificates, or indeed to exercise any of the powers which at present they possess under the Act of 1815.

They would therefore submit that after the words "Section 23" of page 27 of the Bill there should be added the words "as from the commencement of the Joint-Board system."

I may be permitted to take this opportunity on behalf of the Society of saying that the Bill appears to them in all material respects one which should receive the cordial support of the medical profession.

It is, in their opinion, free from any of the objections which they entertained towards the Bill introduced by the Lord President in 1878, and it

will be a matter of regret to them if it should not become an Act at the end of the present session.

I am, Sir, your most obedient servant,

JAMES RICHARD UPTON,

C. L. Peel, Esq. Clerk to the Society of Apothecaries.

The Council then adjourned to Monday.

SIXTH DAY—MONDAY, MARCH 24.

Mr. TURNER called the attention of the Council to a report in the *British Medical Journal* of March 22, of the proceedings of a deputation from the Obstetrical Society to the Duke of Richmond and Gordon, in which Dr. Priestley was reported to have said that the Medical Council might be indisposed to initiate any action as regards the midwives clauses in the Medical Act (1858) Amendment Bill. There had been an article in a leading daily paper, evidently inspired by the Medical Council, which clearly indicated the "let-alone policy" they would pursue. He desired also to ask whether the President could state on what authority this statement was made by Dr. Priestley.

The PRESIDENT stated that his attention had been called to the article in question, containing the report of the deputation. He had been made aware that the subject would be brought before the Council, and he thought it due to so eminent a person as Dr. Priestley first of all to ascertain whether the alleged statement had been made. Dr. Priestley had written as follows:—"The report in the *British Medical Journal* does not accurately represent what I said. What I did say was, that we feared the leading article in the *Times* of the previous day represented the feeling of some members of the Medical Council, and that an attempt would be made to prevent the Council undertaking the duty of regulating the practice of midwives. At the same time I stated that I believed the President of the Medical Council was in favour of the Medical Council undertaking that duty." With reference to the assertion that the article which had been referred to had been inspired by the Medical Council, he (the President) need hardly reply to that, because the Council was not in session at the time it appeared. Dr. Priestley had referred to his (the President's) own personal view, but he had made no statement on the subject except that which had occurred in the opening address. He thought it right to make a further observation as to the article in question with reference to the gentleman who, in his judgment, very efficiently discharged the duties of Registrar. The article said that prior to this the Council was overburdened, and that it threatened to break down altogether. It had been his duty, acting on behalf of the Council, during the winter to have constant communications with their Registrar on the subject of the office work, and he had been gratified to learn that with efficient clerks, such as they now had, there was no difficulty in carrying on the work. Any statement to the effect that the office was incapable of doing the work which they might desire it should do, was entirely without foundation. There was no amount of work which the Council might desire their Registrar to undertake which, with the present staff, he was not entirely capable of administering with accuracy, expedition, and unwearied industry.

After some discussion Mr. Turner's question and the answer of the President were ordered to be placed upon the Minutes.

Dr. ANDREW WOOD then moved, and Dr. STORRAR seconded, the following resolution:—"That the Council now proceed to the consideration of the report by the Executive Committee on the constitution and working of the General Medical Council,"—which, having been put to the vote, was declared to be carried.

Sir WILLIAM GULL asked leave to withdraw the following motion, which stood in his name:—"That, as her Majesty's Government has given notice of its intention to inquire, by a Select Parliamentary Committee, into the constitution and working of the General Medical Council, it is not expedient at the present time for this Council to consider the report now presented by the Executive Committee."

Dr. HUMPHRY then moved—"That this Council, taking into consideration the nature of the duties which devolve, and are likely to devolve, upon it as a Council of Medical Education and Registration, is of opinion that the principle of election of members of the Council by 'the direct representation of the whole profession' does not afford sufficient guarantee for the selection of the persons best qualified to perform those duties; and that the Council cannot, therefore, recommend that such a principle should be adopted." He said that this resolution did not ask the Council to commit itself to the question whether any reconstitution was necessary at all, or whether corporate bodies were unduly represented, or whether general practitioners should be represented; but simply to consider whether direct representation would be a good means of securing that object. Upon that question there was an explicit statement in the report of the Executive Committee. They said, "The Committee are of opinion that 'direct representation' is very unlikely to secure the election of persons best suited for the special duties of the Council. It would be too advantageous to those who could command the best means of conducting elections, or who would be willing to undergo the ordeal of a contested popular election, and to incur the expenses attendant upon it. The evils of frequent general elections and contests in such a profession as that of medicine can hardly be overstated; and, on the whole, the Committee feel that election by the general suffrage of all registered practitioners would be the least desirable mode of appointing members of the Council." Upon that paragraph there was no dissentient voice on the Executive Committee. They had consulted former members of the Council, who were best qualified to give an opinion, and of the twelve members who answered the question, not a single one recommended direct representation. The reason was, that they took into consideration the work to be done, and the means which could be best employed to place upon the Council men most fitted for the performance of the duties. Had the business of the Council related to the condition of the profession, to the relations of the medical profession to one another, to points of etiquette, and so on, he supposed that, perhaps as a matter of justice, there would be a considerable concurrence of opinion in favour of direct representation; but it was of the greatest importance, in the appointment of men whose duty principally it was to superintend and make suggestions with reference to medical examinations, and who had subsidiary duties with reference to registration and the exercise of certain judicial functions, that those who elected them should have a personal knowledge of the men so placed on the Council, or some sure means of obtaining a knowledge of their mental capacity, experience, and independence of thought and action. The question was, What mode of election would be likely to place the best men on the Council? The process apparently would be that a voting-paper would be sent to each of the many thousand members of the profession, a large majority of whom would have no personal knowledge of the men to whom they were called upon to give their votes. The sources from which they would get their information would be the statements in the various journals. No doubt the principle of direct representation would vastly increase the influence of the journals. No man would have a chance of being elected unless he secured the voice of one or more of the journals. He thought he could see why this question had been taken up by a considerable number of the members of the profession, and why the Council had been discredited in every possible way. It was, doubtless, for the purpose of increasing the desire for direct representation. What were the grounds on which direct representation was demanded? One ground was that there was too much talk in the Council. Would the addition of members by direct representation diminish that talk? Would it not cause it to diverge more and more from those duties which more immediately concerned it into matters beyond its range? Was it desirable that that should be the case? With reference to the amount of talk upon the Council, if they wished to diminish that they must diminish the reporting of the Medical Council. He would not exclude reporters, but he thought that that would be by far the most effective means of diminishing the talking. He had formerly thought that the presence of reporters, and a detailed statement of the speeches, would lead to a fair representation of the views of the Council, but in that he had been disappointed, and he did say that the Council was not fairly represented by the leading articles in the medical journals. Therefore that argument in favour of the admission of reporters had ceased to have any weight with him. Another ground for direct representation was that the Council had not set itself with sufficient vigour to the work of improving the general education of the profession. The Council had originally taken a step of great importance—namely, the enforcement throughout the whole profession of an examina-

tion in respect of general education of a larger kind than heretofore,—the result of which was largely to diminish the number of medical students. That showed they had gone as far as it was judicious for them to go. The numbers were then reviving, and, feeling that, the Council had again entered upon its greatest duty—namely, of considering and improving, if possible, the professional education,—the result of which again was to diminish the number in the profession; and no doubt the Council had gone as far as they could well go in that respect. It had been thrown in their teeth that a large number of pupils were rejected at the examinations, and that therefore the Council was not doing its duty. If that were the case, the whole body of persons concerned in education in England were not doing their duty. The hardest problem of the day was this: Having raised their examinations, by what process were they to bring up the students fairly and properly to the level of those examinations? The universities, whose whole object was education and examination, had been at work for centuries. They had raised their examinations, and at no period was the number of rejections so large. He would suggest that if the object of direct representation were to improve education, it would be fair to suggest that there should be a representation of teachers; and they might go still further, and have a representation of students. Then there was the argument of justice, and upon what did that rest? Mainly upon the fact that practitioners paid a registration fee of £5 upon their entrance into the profession. It was said that that was a tax, and that taxation and representation should go together. But was it that kind of tax upon which a vote was accorded by principle or by habit in this country? It was quite contrary to principle that representation should be given as the result of an entrance fee. The tax should be repeated and continual, as a sort of guarantee for the continued interest of the person in the society to which he belonged. If taxation were to be represented, were the English members, who constituted six times those of Ireland, and nine times those of Scotland, to have anything like fair representation? England had not been fairly treated. Her legislation long ago would have been settled as she had wished but for the influence of one, at any rate, of the other divisions of the kingdom. If Ireland claimed justice, Ireland might find that she would have more than she desired, and Ireland might regret that the question was ever mooted. If justice were to be considered, might not the public possibly have a voice in the matter? It was for their interest that there should be a larger number of better educated men introduced into the profession. The questions to be dealt with were not such as related to the general welfare of the medical profession. If so it would only be justice that they should be represented. He wished for a distinct statement of their opinion upon the one point—namely, whether direct representation was a means of adding to the Council men fitted to do the work. They were not to yield to pressure *ab extra*. It might be for the Government to do that; but they were there to give their opinion as individual responsible agents, as members of a Council which had a particular work to do.

Sir WILLIAM GULL seconded the motion. He had, he might say, changed his opinion twenty times, and discussed the matter a great deal with Dr. Waters, for whom he had a great personal respect, and who had an honest conviction that nothing could go well with the Council unless the great body of the profession had a direct voice in it. He (Sir William Gull) thought it was a mere question of sentiment; but he very much doubted whether to carry that sentiment into practice would be for the good of the profession. He thought, on the whole, the interests of the profession were very well represented on the Council as at present constituted.

Sir DOMINIC CORRIGAN moved the following as an amendment:—"That this Council, taking into consideration the nature of the duties which devolve, and are likely to devolve, upon it as a Council of Medical Education and Registration, is of opinion that the election of a proportion of the Medical Council by direct representation would be an act of justice to the whole profession, who furnish the funds but have no voice in the management, and afford a guarantee for the selection of persons possessing practical acquaintance with the needs of the public and the requirements of the profession, and that any measure not providing for such representation would be inefficient and unsatisfactory." He objected to Sir William Gull's statement that the profession were well represented. Were the dentists represented on the Council? Was there a single member of the Council who would trust another member of the Council to draw a tooth?—(laughter)—or was there a member of the Council, being a married man, who would send for a fellow-member to attend his wife in her confinement? (Laughter.) Perhaps there might be a few exceptions to that, but those two branches of the profession certainly were not represented. He also protested against Dr. Humphry's threats. If there was a mode of winning Ireland to support a measure it was not by a threat. He objected to Dr. Humphry's definition of a tax as a payment which was made annually. Dr. Humphry had suggested that if they admitted the principle of direct representation, representation should be obtained of teachers and students, but would they take the advice of a student or a schoolboy as to what he should learn? In many instances the sole object of teachers was to get out of the students as much as they could. He thought the Council should contain a proportion of men who were actively engaged in their profession, who knew the needs of the public and the requirements of the profession. The objection had been made that the election could not be carried out with convenience, but that remained to be tried. There was no difficulty in the case of elections to the House of Commons. Dr. Humphry also had thought it a great grievance that it would give the Press greater influence, but he thought that would be a great blessing. If the Press did what was wrong, there were plenty of modes of contradiction and argument. They could not hear both sides without having the journals before them. The best men for the Council were known through the journals. What did the Government know of the qualities of the men? They did not know half as much as the public did. He thought it would be only justice to the profession to allow them to elect a certain number of members. When a man paid a compulsory tax he had a right to a vote, and he was not aware of any analogous instance of a body sitting with a large number elected by one body and paid by another.

Rev. Dr. HAUGHTON seconded the amendment. He strongly approved of the addition of some distinct representatives of the profession to the Council. It was not exactly the manner which commended itself to him as the best mode of getting representatives, but they were in the position which Aristotle had described, of having to make shoes, not out of any leather they could get, but out of some particular piece of leather which was not the best, so that they had to do the best with the materials at their command. Dr. Humphry had referred to the existence of a number of evils, among others the influence of the Press, but he thought there was no ground for that fear. He was anxious that the Bill of the Lord President should pass. It was, he believed, a very great advance in medical legislation. It might ultimately be somewhat improved, but as it was he believed it to be a beneficial measure for the public and the profession. Those he represented were anxious the Bill should be carried out. He asked them as practical men to vote for the amendment if they wished the Bill carried.

Dr. ANDREW WOOD said his sympathies were in favour of a larger infusion of general practitioners in the Council. He did not approve of their being elected by universal suffrage, because there would be a large increase of canvassing, agitation, and jealousy. The profession would find they exchanged "King Log" for "King Stork." He could see no analogy in other departments; for instance, judges were not elected by popular action.

Mr. TEALE would certainly vote for the resolution of Dr. Humphry if the proposal were to elect all the Council by direct representation; but no such proposition as that was made. It was only that a small portion should be elected. He therefore voted for the amendment. He thought there would be no chance of the Bill passing unless there were some such provision as this made, and that they ought to yield to the demand.

Dr. STORRAR thought the demand that was made was really one of sentiment, to which they ought not to yield. He could not understand upon what principle of justice or reason the general practitioners of the country could put forward a claim to direct representation. He instanced the cases of the different medical bodies, and said that the governing bodies of those corporations exercised similar functions to the Medical Council, but were not elected in the way suggested. They were elected by the higher grades,

and that was an inducement to the lower grades to work themselves up so that they might take part in the election. He thought the business of the Council was to consider what was best for the profession at large, without yielding to clamour. Anything more futile than a claim to representation on the ground of taxation he had never heard of. A person on registration paid £5 for which he had many privileges. Solicitors paid £9 a year in London and £6 in the country for the privilege of practising, besides the payment of a very large sum for the stamp, and they had not direct representation. He thought it a miserable argument that unless they made this concession the Bill would be stopped.

Dr. Pettigrew supported Dr. Humphry's motion. He believed direct representation was more a sentiment than a reality. The constitution of the Medical Council was pretty much the same as it had been in the past. Many of its members were actually engaged in practice, and he thought the Council really represented the best part of the profession.

Mr. Macnamara, as an Irish representative, wished to enter an indignant protest against the way in which Dr. Humphry had threatened them, but his feelings were so much in accord with Dr. Humphry's on the subject that he most reluctantly voted with him. The Council was instituted for the purpose of seeing to the practical fitness of gentlemen entering the profession. He could not conceive a better constituted Council than the present for such a purpose. All the requirements seemed to be concentrated in most of the members of the Council. The universities, corporations, and schools, all had representatives. In Ireland the Bar had no direct representation. The benchers, who were the body that regulated the Bar in Ireland, themselves elected a new member upon a vacancy, and not the people who paid the tax. He thought nothing would be more degrading than the touting there would be for votes, and it would be the man who was most urgent in his canvass, and probably the most objectionable in his conduct, who would be elected. The present system afforded a great incentive to men to seek higher qualifications. He would be exceedingly sorry to see direct representation in the Council. The wisdom of the Council would not be increased; they would not get more information, and he could see no earthly advantage, but every possible disadvantage.

Dr. Scott Orr supported the motion. He thought direct representation, so far as Scotland was concerned, quite unnecessary. Half of the Scotch representatives were general practitioners. If there were to be any addition to the Council, the necessity for which he did not see, probably the best manner in which that addition could be made would be by the introduction of members of the Council by the nomination of her Majesty.

Dr. Haldane supported Sir Dominic Corrigan's amendment. He said, in his opinion, the principal question was the question of justice. The Council was intended to represent the medical profession, but no one could say that the medical profession was fully represented. The great bulk of the profession and the graduates of the universities had nothing to do with the election of the representatives: it was entirely in the hands of the governing bodies. It was useless to argue that it was a man's own fault if he did not rise and take the higher positions, so as to become an elector. If every Licentiate were to become a Fellow, that would cease to be a higher grade, and a still higher grade would have to be brought forward. He did not look with alarm on the results of direct representation.

Dr. Aquilla Smith had no objection, in principle, to six members being added to the Council. He was strongly against direct representation. The fee paid for registration was not a tax, and therefore could not be considered to give a right to direct representation. He looked upon the power of the Press in these matters as one of the most dangerous things.

Dr. Humphry, in reply, thought that all that could be said in favour of direct representation had been placed before the Council by the four members who had spoken in its favour. Of those four, two—Dr. Haldane and Mr. Teale—did not, after all, consider that it was the thing which was most desirable, but they urged them to vote for it on the grounds of sentiment and of policy, neither of which were matters by which a body of men like the Medical Council should be influenced. On one occasion he had given a vote from reasons of policy, and that was the vote of all others which he most regretted. He trusted that the Council would not be influenced by the apprehension that the Bill would not pass the House of Commons unless they voted in a particular way. Their business was to consider whether the question was right or wrong. The argument, however, had been advanced that it would put on the Council men in general practice. He trusted it could not put on the Council a man who was not interested in or connected with the various corporations, but if they desired to put on the Council men who would regard the matter outside the corporations, was direct representation the best mode of obtaining them? Would not the plan which had been proposed by Dr. Andrew Wood be far more likely to obtain men of real knowledge? The impression conveyed by Sir Dominic Corrigan was that his (Dr. Humphry's) resolution referred to all the members of the Council being elected by direct representation. It had, however, been carefully worded to avoid giving that impression. Sir Dominic had endeavoured to prove that his (Dr. Humphry's) definition of the word "tax" was wrong, but all he had said was that it was not the kind of tax which, in accordance with the principles of every constitution, gave a vote. Sir Dominic Corrigan had spoken of himself as being the one who had urged the representation of the public, yet he was the advocate of a measure which would almost suppress that which was at present a public representation on the Council. He (Dr. Humphry) distinctly represented the public. It had been stated by the gentlemen from Ireland that he had threatened them, but the wiser men from the North had perceived that it was not a threat at all, but a simple statement of what was likely to occur. One of the strongest arguments he thought was that two gentlemen, certainly not deficient in judgment, and who had formerly been advocates of direct representation—Sir William Gull and Dr. Andrew Wood—had after prolonged consideration come to the conclusion that it was not desirable. He thought they should follow the example of the lawyers, who were far too wise to raise such a question, but who left the administration of their affairs in the hands of a small number of persons who had cognisance of the matter, and were able to take care of them much better than they were able to take care of themselves.

The amendment was put to the Council, when 3 voted in favour of it and 17 against it, and it was declared lost.

On the original motion of Dr. Humphry being put, it was carried by a majority of 17 to 4.

Dr. Andrew Wood moved—"That it is expedient that the Council should more largely represent the general body of registered practitioners, and that this object might be best accomplished by increasing the number of Crown nominees by four—namely, two for England, one for Scotland, and one for Ireland—who are not members of the governing bodies of the medical authorities." The task imposed upon the Executive Committee had proved very difficult, and this was not a recommendation, but a mere suggestion. He believed the general practitioners of the country not connected with governing bodies of the medical authorities were not sufficiently represented. He enumerated the members who had been appointed as nominees of the Crown, and thought that if they were to have additional representatives there was no patronage which could be preferred to the patronage of the Crown.

Sir William Gull thought a suggestion he had to make would meet the difficulty about direct representation. He proposed as an amendment—"If any change is to be made in the constitution of this Council it seems desirable that the Crown nominees should be of persons selected by this Council, and that for every vacancy so arising the Council should submit at least two names to the Crown for nomination."

Dr. Aquilla Smith having seconded the amendment,

Mr. Turner suggested that the debate should be adjourned, and it was accordingly adjourned till to-morrow.

The Registrar read a certificate of conviction of Thomas Millerchip, at Warwick, on February 15 last, for having caused the death of George Bastock the younger, and the Council adjourned till to-morrow.

Sir Richard Wallace has, states *Galignani*, given ten new fountains to the city of Paris, by which a constant supply of filtered water will be at the command of the poorer inhabitants in the vicinity of each. These fountains are to be erected against the walls in different parts of the capital.

ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON

CONGELATION, FLUID PRESSURE, AND THE TREATMENT OF CANCER.

By JAMES ARNOTT, M.D.

THE following brief remarks are made in fulfilment of the duty imposed on every originator of a useful therapeutic proceeding of watching its progress in order to prevent the depreciation and loss of utility that would result from a misunderstanding of its principle, or from this being imperfectly carried out in practice. They relate to congelation as an anæsthetic in surgical operations, to the advantages on many occasions of compression by a fluid over that produced by other means, and to the efficacy of cold and pressure in the treatment of cancer.

CONGELATION.

It had been the opinion, from time immemorial, that the effect of freezing the animal tissues would almost certainly be either their immediate destruction or their violent and dangerous inflammation. The discovery that a part of the body can be thoroughly benumbed by freezing it for a short period, without risk of injury, immediately led to the use of congelation as a preventive of pain in surgical operations, in lieu of the hazardous inhalation of chloroform and other narcotic vapours; but its additional and not less valuable property of preventing inflammation after operations has not been generally understood. Of the lives which have been saved when congelation has been substituted for chloroform, several may have been so in consequence of its possession of this antiphlogistic property; and it is extremely probable that if intense cold were employed in certain deep operations as well as in those that are superficial, there would be a decrease in their fatality. This prophylactic power depends on the manifest change produced in the structure of the congealed part, and in the functions of its bloodvessels and nerves being incompatible with that change from their normal condition which constitutes inflammation.

That congelation possesses this virtue is proved by the fact that in no instance, so far as I know, where it has been properly used has erysipelas followed an operation.

After ascertaining the value of congelation there was no difficulty in applying it. Of the two well-known modes of producing intense cold artificially—rapid solution and rapid evaporation—the first appeared the more eligible; and when I visited the hospitals in Paris for the purpose of introducing congelation, it had been produced only by freezing mixtures. Some years afterwards the other plan was adopted by MM. Richet and Guerard in one of these hospitals; and subsequently by Dr. Richardson, who, by improving the apparatus for converting ether into spray, gave it, probably, all the perfection of which its principle is susceptible.

The simplest mode of producing local anæsthesia, suitable for some operations, is to press on the skin a bit of ice which has been dipped in salt, and to repeat the dipping several times during an application, with these slight interruptions, of two or three minutes. The same proceeding may be used as a preventive or remedy of small inflammations. If boils, for example, be thus congealed before suppuration has taken place, they will immediately be suppressed. When a freezing mixture is required for more important purposes, it is necessary that a considerable quantity of ice, which has been thoroughly pulverised and quickly mixed with about half its weight of salt, should be applied by means of a gauze net or a guttapercha cup. Ether spray is a convenient substitute for the freezing mixture in small operations, when ice cannot be procured; but in some localities it fails from its evaporation being impeded, and in others its application is painful. The difficulty of combining pressure with it is another objection, as pressure facilitates congelation and its extension to the deeper textures. In a recent work by M. Gosselin, Professor of Clinical Surgery in the Medical School of Paris, a minute account is given of a mode of applying a freezing mixture with pressure in evulsion of the toe-nail, for which purpose, he states, he has used it fifty-four times. As it is a mode suitable for some other operations, it may be briefly described. A small muslin bag, containing a mixture of equal parts of ice and salt, being placed on the toe and made to envelope its two sides, is then leant upon by the surgeon's hand (protected by a compress from the cold) until the congelation is effected. In concluding the subject, M. Gosselin remarks that "Although local anæsthesia may also be obtained by the refrigeration produced by ether with Richardson's apparatus, this process requires much more time (from ten to fifteen minutes), and produces an insensibility less complete than that of the freezing mixture; and as an extremely painful operation has to be performed, we should employ the most effectual means we possess for suppressing the sensibility" ("Clinique Chirurgicale de l'Hopital de la Charité," vol. i., page 72). There are other modes of congealing which it is unnecessary to mention in this sketch; but what has been said on the subject is not superfluous, as the principle of local anæsthesia may be brought into disrepute by the faulty means employed in effecting it.

In choosing between local and general anæsthesia, when either answers the purpose in view, the fact that the latter occasionally proves fatal should be deemed a sufficient objection to it. The worst consequence of local anæsthesia, and one which will not occur if it be carefully produced, is injury to the skin.

The power possessed by congelation of preventing inflammation is an argument in its favour, particularly in operations on the scalp.

The statement that all the measures employed for benumbing are painful, is not correct. When a freezing mixture is properly applied, the uneasiness which it causes seldom exceeds that produced by a mustard plaster, and is of very short continuance. On the other hand, the severe and long-continued sickness, with vomiting, so often following the inhalation of chloroform, causes more suffering than many considerable operations would performed without anæsthesia. Moreover, by adopting the freezing mixture both the patient and the surgeon are free from anxiety about the result, nor is there a necessity for procuring assistance or making preparations for a possibly required resuscitation.

These observations refer to superficial operations. In those that are deep, congelation can only prevent the pain caused by the incision of the external tissues, which, however, is by far the most acute. As it is very desirable to prevent this acute pain, congelation is a valuable resource in those deep operations where, from circumstances, chloroform would be peculiarly dangerous. Whether the pain from a large amputation could be entirely prevented by a short congelation after the blood has been expelled by the strong pressure of a bandage, or by the numbness caused by the long application of a degree of cold insufficient to produce congelation, remains to be ascertained. Another point connected with this subject still unsettled is, whether the operation for cataract could be rendered painless by a freezing mixture applied to the closed eyelid (as has been done in the treatment of ophthalmia), in order to avoid the injury of the eye that has followed the vomiting caused by chloroform.

Enough is now known of the properties of congelation to enable us to avail ourselves of them in practice, but much remains for further inquiry, and the labour of prosecuting this would doubtless be amply repaid.

(*To be continued.*)

PROFESSOR BROWN-SÉQUARD.—The Creoles of the Mauritius residing in Paris recently celebrated the succession of their illustrious compatriot Dr. Brown-Séquard to the chair of Claude Bernard at the Collége de France. "The Mauritians, to the number of 100, invited him to a dinner at the Grand Hotel. The toasts were drunk in the English fashion, for our former Ile de France, the home of Paul and Virginia, has been under British dominion since 1815. Toasts were drunk to Queen Victoria, to France, and to the President of the French Republic; and this last toast was received with immense applause, for the Ile St. Maurice remains French in language, in manners, and in sentiment. Then Prof. Brown-Séquard's health was drunk, the humble commencement and incessant discoveries of this *savant* of genius being adverted to. M. Laverdan, the chairman, did such justice to this toast, that Prof. Brown-Séquard, overcome with emotion, was only able to reply in a few words, interrupted by tears."—*Union Méd.*, March 13.

if we are to go on with a proper *modus vivendi*, cannot be carried out by this large promiscuous Council, and can only be enforced by the corporations, who will have to exercise in the future as they have done in the past—like the College of Physicians—that salutary influence which is the only way of keeping up what I have called a *modus vivendi*, or what I may term, in other words, "professional comfort." You cannot get this huge Nasmyth hammer to deal with these minutiæ of professional etiquette. It would be, so to speak, to break a butterfly on the wheel. I hope the universities and corporations will continue the good work that they have done in the past. That will be another *raison d'être* for them in these days when corporations have to fight for their existence.

Sir James Paget: This is the central point of Mr. Simon's motion: a man passes the conjoint examination; afterwards something is found out which has been overlooked by the examiners—the man has been an advertising quack, a procurer of abortions, or in some way guilty of misconduct which would justify this Council in striking his name off the Register. Thereupon the corporations refuse, one or all of them, to register him. The Act, as it at present stands, thereby confers upon him an absolutely unalterable right to be registered. All that he requires in order to be registered is that the corporations should refuse to do it. It may be said that the Council can strike his name off, but I should be very sorry to see the Medical Council in the inconvenient position of going to the Queen's Bench, and being obliged to say, "Last January we registered this man, but this March we come and we beg your leave to remove him." By that I mean that the man can appeal at once from this Council either to the Privy Council or some other court, and then we should have to justify ourselves for our change of front in wishing to undo that which a few months ago we had solemnly done. The point which I wish to make quite clear to the Council is that by the Bill, as it at present stands, the right to be registered is acquired by the refusal of the corporations to register. (Applause.)

Dr. Quain said he wished Sir James Paget had said this a few days ago, when he brought on his motion upon the same clauses. He had failed to make Sir William Gull, or apparently any member of the Council, understand the objection to this clause, which, to his mind, was perfectly clear. A man may be registered with his qualifying certificate in spite of being a bad character. Supposing him to be once registered, the College of Physicians finds the man has been guilty of the most unprofessional conduct—he has advertised in every low form that can be conceived—and informs the Medical Council of this. The Council would have to answer, "Oh, we cannot strike him off, it is not in our Act of Parliament; he must be guilty of some great crime or misdemeanour." That was the result of Clause 5; all control over professional conduct was lost. It was plain his Grace the Duke of Richmond did not understand it, because last night, in the House of Lords, he stated that he put in the clause to please the licensing bodies.

Mr. Simon having briefly replied, the motion was put to the vote and unanimously adopted.

Dr. Andrew Wood then moved—"That, seeing that her Majesty's Government have resolved to refer to a Select Committee of the House of Commons the question of the constitution and working of the Medical Council, as one of importance and difficulty, it seems expedient that the other questions connected with medical reform, some of which are no less important and difficult than that of the constitution and working of the Medical Council, and in regard to which much diversity of opinion exists, should also be referred to the same Select Committee for investigation and report, previously to further medical legislation." He strongly urged the necessity for further inquiry before a Select Committee respecting the proposed method of depriving the various educational bodies of their ancient privileges. The College that he had the honour to represent could boast of a charter from James IV. of Scotland, and it was now proposed by a crude and ill-digested measure to deprive those ancient bodies of those duties and privileges which they had so well exercised in the past. Some observations had been made at the council-table in disparagement of the claims of the Scotch medical colleges, and the comparative claims of the two countries were spoken of as though England were a very superior place indeed. Still, he supposed it would not be denied that Scotland had sometimes helped the progress of medical science. Where would the Hunterian Museum be but for Scotland? Where would be the great improvements in obstetric art but for Scotland? Where would pathology in England be but for Matthew Davis, who was the founder of pathological investigation in the United Kingdom? Where would those brilliant discoveries which were made in regard to the nervous system be but for Scotland in the person of Sir Charles Bell? Sometimes the English were glad enough to go to Scotland for good teachers. They had taken away Lister and Syme, although the latter came back again. They had also taken away Fergusson, and, to end the recital of Scottish worthies, he might instance the case of Dr. Matthews Duncan, an honour to his profession, and a very distinguished man. If charges were to be made in disparagement of Scotland, he would like to see them, not whispered into the ear of the Privy Council authorities, but openly and face to face before a Select Committee of the House of Commons, who would take evidence upon the subject, who would examine the returns and the examinations, and who would say whether with 30 per cent. of reductions they were prepared to increase the severity of the Scotch medical examinations, when it was openly confessed by the military and naval authorities that there was the greatest difficulty in inducing young men to join the services. He might speak feelingly upon this subject, for a son of his had recently volunteered to go to Zululand, and it had come to his knowledge that the greatest difficulty was found in getting medical officers to accompany the reinforcements. The learned doctor then read extracts from the debates in the House of Commons, which showed that there was such a diversity of opinion, and so many amendments, that the subject was not ripe for immediate legislation. As a good Conservative he had looked forward to the time when, with a strong Government, that party would deal fairly but firmly with the question of medical reform; but he was almost afraid, from the Lord President's way of dealing with the matter, that the Government was too strong, and might push through an incomplete measure this session by what the Liberals delighted to call a mechanical majority—a phenomenon not unknown in the Medical Council. (Laughter.) In concluding an able and eloquent address, he said that it was better for all concerned to have an inquiry. It was better for those who advocated the Bill in order to justify what they were doing; it was better for those opposing the Bill in order that they might know whether the opposition was worthy of being maintained; it was better for the licensing bodies, eight of whom, at least, would not be content unless they had had a preliminary inquiry. He did not see why any man in the Council should object to the inquiry which he asked by this resolution. Were they afraid of the inquiry—were they afraid that it would be proved in the Select Committee that they were going too far? If they were not afraid of that, why should they not go before a Select Committee, where both sides would be heard, and the evidence balanced by impartial people. The Scotch corporations were not afraid to go before them; they were quite ready to take their trial, and to have everything laid bare, whether for or against them, in order that there might be no longer continual insinuations, accusations, and whisperings against them. If the Bill were passed without previous inquiry, there would be certain to be continuous irritation and injustice, which would place the profession in a very unpleasant position. But if there were an inquiry, whatever the result come to by the Select Committee might be, whatever report they might deliver, whatever Bill might be founded by Parliament upon that report, then it would be unwarrantable, it would be disloyal after that to do anything to impede the progress of a measure so founded. Therefore it was that he asked the Council not to make a foregone conclusion of this matter, but to weigh well what he had said, which, whether well argued or not, had been an honest statement of his thoughts upon the subject.

The motion was seconded by Dr. Scott Orr.

Dr. Humphry moved the following amendment—"That the subjects regarding which legislation is proposed by the Lord President's Bill now before Parliament have been long and sufficiently discussed, and that the continued uncertainty respecting legislation upon them retards the improvement of medical education, and is detrimental to the interests of the profession and the public; and the Council trusts that the Lord President's Bill, with such alterations as have been or may be suggested by the Council, will be passed during the

present session of Parliament; and the Council is of opinion that the reference of the Bill to a Select Committee of the House of Commons is not necessary." He would not attempt to disparage the claims of Scotland, but when Dr. Andrew Wood cited such cases as Hunter, and Bell, and the other worthies that he had mentioned, and when he had asked where would the cause of medicine in England have been but for them, he might have gone on to ask, where would Hunter, and Bailey, and many other of those noble Scotchmen have been if it had not been for England. (Laughter and applause.) Dr. Wood had warned the Council against hasty legislation, but he had at the same time brought before them proofs of the enormous amount of consideration which this subject had already had both in the Medical Council and in Parliament. The truth was that the matter had been thoroughly exhausted. Moreover, last year, Dr. Wood, and all Scotland with him, was prepared at once to support the Bill of the Lord President. Therefore, he could not fairly bring a charge of hasty legislation against the present Bill. The fact was that the legislation had been too long postponed, and had now taken a direction which was somewhat unfavourable to Scotch views; that was the real reason why the Scotch representatives desired further delay and an inquiry before a Select Committee of the House of Commons. One thing was quite clear—that the separate examinations of the nineteen bodies could not be continued; the only question was how they could be reduced into one, at the same time doing as little damage as possible to the medical authorities. A little consideration would convince Dr. Wood and those who went with him that each change which had taken place in the proposed legislation upon this subject had not been in a direction to please them, but had always been in the direction of placing the examining power in some central authority, and to remove it more and more from the existing corporations. The true policy, therefore, was to make the best of the present Bill, so as to set this long-debated question at rest, and leave the Council at liberty to proceed with the duties imposed upon it by Parliament.

Sir WILLIAM GULL pointed out that the Council had to advise the Government how to legislate, and instead of doing so they were proposing to ask the Government to send the matter to a Committee of the House of Commons for consideration. They had been discussing during two sessions how they should advise the Government to legislate, and they ought not now after all to hold back. There was no reason why the establishment of a joint board for each division of the kingdom should be, as had been represented, a restraint upon the teachings of the corporations, because one of the objects of the scheme was to allow freedom of action. Nothing could be more dangerous than for the Council to leave members of the House of Commons to legislate for the medical profession, the requirements of which they could not be expected to understand. He would later on propose that the constitution of the Council should depend upon itself, for that was the only way in which it could do its duty to the profession. What was the Council for but to see to the advancement of the profession, and to advise the Government in all matters connected with it? And it was now proposed that they should voluntarily stultify themselves. Sir Dominic Corrigan had well said that was a very easy thing for them to do—(a laugh),—but he trusted they would avoid doing so. The Council had carefully gone through the clauses of the Bill step by step, and he hoped there would be a large majority in favour of the amendment.

Sir DOMINIC CORRIGAN, in supporting Dr. Wood's resolution, was sorry that Sir William Gull should have said that the Queen's University was in a state of "acknowledged inefficiency." Observations which could not be sustained should not be made, and he (Sir Dominic Corrigan) must say he attached more value to the opinion expressed by Dr. Humphry, who had inspected that school of medicine, and had thought so well of it that he recommended the adoption of some of its features in other places. The making of such representations as Sir William Gull had thought proper to put forward was not a proper way to treat the great subject before them, and it would be at least one-sided for the Council to refuse to recommend such an inquiry as was proposed, which was the more required as they had never had the result of the pocket inquiry by Parliament into the state of the medical profession in 1832-33, the documents connected with that inquiry having been destroyed in the great conflagration of the House of Commons. Were they now to rush into legislation without any inquiry or investigation at all, by refusing to request the appointment of a Select Committee to examine into the subject? Sir William Gull said the Council had considered it fully for two years, but the Reform Bill and the question of church reform had been before Parliament for years and years before they were made the subject of final legislation. The only true mode of dealing with the matter was to have a public inquiry instituted upon it by the House of Commons. There was no proof whatever that immediate legislation was imperatively required. (Hear, hear). Without a single report during the twenty years of the establishment of the Council against the manner in which the universities and corporations had conducted their educational systems and examinations, it was proposed that they should now be deprived of their authority and of their power of granting degrees. With regard to the provision of the same privileges for the general public as were insured for the Army and Navy, a medical board should be established for the efficient examination of all candidates for the public dispensaries, so that miners, labourers, soldiers, and sailors, should all have the same safeguard. That would leave all the universities and corporations in possession of their own privileges. In conclusion he begged to most cordially support Dr. Wood's motion.

Mr. SIMON recalled Shakespeare's lines,

> "To-morrow, and to-morrow, and to-morrow—
> Creeps in this petty pace from day to day,"

and protested against unlimited procrastination. There should be something like loyalty in maintaining the deliberate decisions of the Council. Only yesterday they had "appealed from Philip drunk to Philip sober"—(laughter)—for Philip drunk had upset some of the most deliberate decisions that had been previously arrived at. If the Council meant to make any real progress, they must have some regard to finality of decision, and minorities must learn to respect conclusions with which they did not agree. As in all the great concerns of life, so with the work of this Council (which was among the greatest), and he would venture to submit that, unless minorities in the Council would consent to give way in minor matters, progress was altogether impossible. The question of the establishment of joint boards, after having been settled on a number of occasions, should not be re-opened and treated as though it had never been considered. As a Council he thought they had now had their say on the matter, and it should now be left for Parliament alone to decide whether a Committee should be appointed to still further consider the subject. Why, if it were deemed so necessary, had not the College of Surgeons of Edinburgh asked for a Committee last year?

Dr. ANDREW WOOD: That is exactly what we did ask for—a Select Committee.

Mr. SIMON said they had no security, even if a Select Committee should be granted, that those who were now dissentients from the Bill would accept their decision.

Dr. SCOTT ORR considered that the interests of the profession demanded that the Bill should be referred to a Select Committee. The question had been looked at too much from an English point of view; and when it was said that the Council had again and again approved the main principle of the Bill—viz., the formation of a joint board for the Kingdom—it could not be denied that the Council had been overweighted in the matter on the side of England as against Scotland and Ireland.

Sir WILLIAM GULL: England is the larger country.

Dr. SCOTT ORR said the difficulty of fitting Scotchmen and Irishmen with English spectacles was no doubt very great; but the converse was equally true. He denied that Scotch students were passed too easily in examination. Great improvement had been made in medical teaching, and especially in Scotland, where the examination tests were now so severe as to tax the energies and intelligence of the students to the utmost. The results of the clinical examinations in Scotland showed that the Scotch corporations were doing all they possibly could to elevate medical education; and it should be borne in mind that a large proportion of the rejections in Scotch examinations were of persons who had been educated elsewhere. (Hear, hear.) In what way would they be benefited by the establishment of this Conjoint Board, of which so much had been made? The difficulty of establishing such a board in England would be very great; and, seeing that there were forty-eight

ingly doubtful whether Government would allow a matter of such importance as the admission of colonists and foreigners to registration in England to be settled practically by any of the authorities separate from the rest, even though a right of appeal to the Medical Council were provided. And he argued, among other points of objection, that no one of the authorities could make the necessary inquiries as to character, education, etc., with the authority and fulness that ought to be required. The necessary information ought to be tested with the most scrupulous care, and by a body entirely free from the imputation of desiring to add members to its list. Moreover, a colonial or foreign practitioner might be driven to attach himself not to one of the highest, but to one of the lowest of the authorities. Dr. Humphry also thought that the resolution would be unfair to English practitioners and unworkable; as did Sir William Gull. The plan of the resolution appears simpler than that of the provisions for the objects in the Bill. It would do away with the hard and fast line requirement of ten years' practice, which might sometimes prove a grievous hardship; and it would transfer the responsibility of deciding on the value of colonial and foreign examinations, etc., from the Medical Council to the medical authorities, who *ought* certainly to be sufficiently jealous of their own honour and reputation, and of the interests of the profession and the public. But, undoubtedly, the resolution is open to grave objections; and these were urged by Sir James Paget with such ability, clearness, and force, that he succeeded in persuading the Council to reverse their decision of the day before. The motion that the resolution be not confirmed was carried by eleven votes to six. Neither this decision, however, nor that of the previous day, can be expected to have much value in instructing the Lord President, supposing that his Grace ever hears of them, for in neither of the divisions was the majority an absolute majority of the whole Council. In the division taken on Wednesday, five members refrained from voting, and in that taken on Thursday, six, though present, did not vote. No resolution voted on by only three-fourths of the Council can have much weight outside. And many divisions of this character have taken place during the present session. Mr. Macnamara's motion providing for the equalisation of the fees to be paid for admission to examinations in each part of the United Kingdom, the debate upon which was commenced on the Wednesday and concluded on Thursday, was carried by fifteen votes to one, but eight of the members of Council declined to vote either for or against it. And a motion of Dr. Humphry's, relating to an alteration in one of the midwives clauses, was carried by twelve votes to five, seven of the members present declining to vote.

The President of the Council undertook to draw the attention of the Government draftsman to certain ambiguities of expression in the new Act, affecting the position of students in relation to it; and also, by the advice of the solicitor and a unanimous vote of the Council, he was requested to point out to the draftsman "that the words of the last section of Clause 24 seem by implication to prevent a dentist calling himself 'surgeon-dentist,' unless he be a licentiate in surgery, whereas under the Dentists Act an opinion which the Council has obtained states that he might so call himself." All the resolutions for the amendment of the Bill, passed in committee of Council, excepting Dr. Quain's, were agreed to by the Council; and to the resolution having for its object the strengthening of the parts of the Bill which relate to the purpose of keeping the profession free from persons whose moral character would disgrace it, the following important rider, which needs no explanation, was added on the motion of Mr. Simon:—"That it be brought under notice of the draftsman of the Bill that, in Clause 5, where provision is made with regard to cases in which corporations shall refuse or fail to 'attach' bearers of qualifying certificates who seek to be attached to them, it seems to have been overlooked that in certain cases the corporation's refusal may rest on grounds of moral disqualification in the applicant, such as, if he were already on the roll of the corporation, would entitle the corporation to remove him from it; and that it be suggested to the draftsman that apparently some qualifying words are wanted, lest persons refused on such grounds as those should *ipso facto* acquire the exceptional privilege as to registration which the clause intends to give to other refused persons."

The consideration of the Medical Bill having been concluded, on the afternoon of Friday, the fourth day of the session, Dr. Andrew Wood moved that the other questions of medical reform, besides that of the constitution and working of the Medical Council, should be referred by the Government to a Select Committee of the House of Commons for investigation and report, previously to further medical legislation. In an able and eloquent speech he pointed out that much diversity of opinion still exists with regard to the proposed methods of reform, and the depriving the various educational bodies of their ancient privileges; and he strongly urged the necessity of further inquiry. If the Bill were passed without it, there would, he said, be certain to be continuous irritation and sense of injustice; but if the inquiry were made, then, whatever the result came to by the Select Committee might be, whatever report they might make, and whatever Bill might be founded by Government upon the report, it would be unwarrantable, it would be disloyal, to do anything to impede the progress of the measure so founded.

Dr. Scott Orr seconded the motion; and then Dr. Humphry moved an amendment, affirming that the subjects dealt with by the Bill before Parliament have been long and sufficiently discussed; that the continued uncertainty respecting legislation upon them retards the improvements of medical education, and is detrimental to the interests of the profession and the public; that the Council trusts that the Bill, with such alterations as have been or may be suggested by the Council, will be passed during the present session of Parliament; and that the Council is of opinion that the reference of the Bill to a Select Committee of the House of Commons is not necessary." The discussion that followed occupied the rest of the sitting on Friday, and almost the whole time of the Council on Saturday. It gave opportunity for some very able speeches, as especially those by Dr. Turner, Dr. Storrar, and Sir James Paget, and Dr. Andrew Wood's reply; but, with all respect to the speakers, it would be a waste of labour and space to reproduce here the arguments employed: they have been stated often enough before, and are well known. The original motion, if carried, could only lead to delay, and it is difficult to imagine that any one of those who supported it could have really expected anything more from it than delay. It seems impossible to believe at the present stage of matters that any Select Committee of the House of Commons would recommend the continued existence of a multiplicity of examining bodies. We do not expect any wonderful good to result from the institution of a conjoint examining board for each division of the kingdom, and we do not believe in "uniformity" of examinations; but we do think that a few examining boards will be better than nineteen, and we think it would be better to accept the Lord President's Bill than to call upon a Select Committee of the House of Commons to determine how medical students are to be educated and examined. Dr. Storrar and Sir James Paget well and clearly showed how much and how long these questions of "medical reform" have been discussed, and what will be the dangers of referring questions of medical education,

examination, and qualification to a House of Commons Committee. We do not suppose that the debate influenced a single vote. Professor Humphry's amendment was carried by fourteen votes to eight, and the character of the division list might have been foretold. The minority consisted of all the Scotch representatives, and the Crown nominee for Scotland, with two Irish representatives, Sir Dominic Corrigan and Dr. Aquilla Smith. Two members of Council, the President and Dr. Quain, did not vote. The result would, no doubt, have been exactly the same had the division been taken as soon as the amendment had been seconded. That, however, is not a reason against the discussion: in every deliberative assembly debates are held the results of which are perfectly known beforehand. But a speech relieves a full heart, and it seems not improbable that this may turn out to have been nearly the last chance of discussing the subject of this debate in the Council. Moreover, we more than suspect that other members besides those who formed the minority in the division would be glad if Government would let the whole matter be shelved, and leave medical reform to the medical authorities and the Medical Council.

On Monday, the sixth day of the session, after the President had replied to a question, put by Professor Turner, respecting a statement reported to have been made by Dr. Priestley, to the Lord President of the Council, as to an alleged indisposition on the part of the Medical Council to initiate any action as regards the midwives clause of the Medical Bill, Dr. Andrew Wood and Dr. Storrar moved that the Council proceed to the consideration of the "Report by the Executive Committee on the Constitution and Working of the Medical Council." The motion was carried by eighteen votes to five. Dr. Humphry then moved, and Sir William Gull seconded, a motion to the effect that the Council is of opinion that the principle of election of members of the Council by "the direct representation of the whole profession" does not afford sufficient guarantee for the selection of the persons best qualified to perform the duties which devolve, or are likely to devolve, upon the Council; and that the Council cannot, therefore, recommend that such a principle should be adopted. Sir Dominic Corrigan thereupon moved, and the Rev. Dr. Haughton seconded, an amendment, stating at some length that the election of a proportion of the Medical Council by direct representation would be an act of justice to the whole profession, and that any measure not providing for such representation would be inefficient and unsatisfactory. We need not reproduce the arguments brought forward by the speakers on the motion of the amendment; they are well known, they are represented in the opinions we elsewhere give of former members of the Council on the subject, and the speeches are reported in our columns. We must, however, protest against Dr. Humphry's complaint against the Press, and his statement that the Council is not fairly represented by the leading articles in the medical journals. We can certainly assert for ourselves that we have always desired to represent the opinions and actions of the Council with the most perfect fairness and accuracy; and we believe we have invariably succeeded in doing so. And we do not believe that any medical journal has ever intentionally misrepresented or unfairly represented the Council. We confess to some surprise, as well as regret, that a man of Dr. Humphry's position, of his power and influence in the Council, should have fallen into the mistake of bringing charges against the medical journals; for attacks on the Press are generally either the fretful outcome of an unacknowledged consciousness of failure, weakness, or disappointed ambition, or arise from an effeminate sensitiveness to criticism.

On Sir Dominic Corrigan's amendment being put to the vote, only three members voted for, and seventeen against it. The original motion was then put to the vote, and carried by seventeen votes to four. Dr. Haldane, Rev. Dr. Haughton, Sir Dominic Corrigan, and Mr. Teale formed the minority; the President and Mr. Simon did not vote; and Dr. Rolleston was absent.

Dr. Andrew Wood then moved, "That it is expedient that the Council should more largely represent the general body of registered practitioners, and that this object might be best accomplished by an increase in the number of Crown nominees by four—namely, two for England, one for Scotland, and one for Ireland, who shall not be members of the governing bodies of the medical authorities." Two amendments to this were proposed, one of which was withdrawn, and the second, proposed by Mr. Macnamara and Dr. Quain, to the effect that "this Council, as at present constituted, fairly represents the profession at large," was not carried. Next, Mr. Simon and Sir James Paget proposed the following amendment: "That the consideration of the report of the Executive Committee on the constitution and working of the Medical Council be now closed." Their arguments in support of their amendment were that the great question of the desirability of "direct representation" had been settled so far as the Council is concerned, and that that question constituted nine-tenths of the matter in dispute; that the intention of the Government to refer the inquiry into the constitution of the Council to a Select Committee of the House of Commons rendered any further discussion of the matter by the Council useless and futile, as it was not at all probable that any other resolution on the subject would be carried in the Council by such a majority as would carry any weight or influence; that the Select Committee could call before them any member of the Council, who, in their opinion, could give them useful information; and that, therefore, further debate would be a waste of time, and could not be productive of any good effect. The attempt to close the debate after this summary fashion was rather startling, and no little courage was required to propose it. But the truth and force of the arguments in its favour cannot be gainsaid. The Council had been called together too late to discuss the question of reform of its constitution with any practical effect; it was nevertheless obliged to redeem in some measure its pledge given on the matter to Government in July last; and this had been done by the debate and resolution on the cardinal question of "direct representation." Could any useful purpose, then, be served by the continuance of the discussion of the report? Mr. Simon's amendment was carried, and, on its being put as a substantive motion, Dr. Pyle moved his amendment, early placed on the Minutes, recommending that the constituencies of every medical authority, for the purpose of electing representatives on the Medical Council, be enlarged so as to include all the graduates, members, and licentiates of each authority. But it could not be expected, after the previous division, that the amendment would be seriously discussed, and Dr. Pyle, under these discouraging circumstances, was content to do little more than present it. It was seconded by Dr. Hudson, and negatived; and Mr. Simon's resolution was then put as an original motion, and carried.

On Wednesday, the 26th, the Council considered a motion for the increase of the payments for attendance at the meetings of the Executive Committee, in consequence of the great increase of business devolving on that Committee in connexion with the carrying out of the provisions of the Dentists Act, and the much greater length of time occupied in the sittings. The motion was justified by statements showing how greatly longer the sittings of the Committee necessarily have been of late, and, after some discussion, the Council agreed that the payments for attendance at meetings of the Executive Committee shall be the same as for attendance at meetings of the General Council.

The certificate of the conviction of Mr. Thomas Millerchip was presented to the Council, and, on motion made by Dr. Andrew Wood and Dr. Pitman, it was decided not to erase his name from the Medical Register.

The rest of the sitting, which was a long one, was almost entirely occupied by dental business, and that having been concluded, the session was brought to an end, and the Council rose and went their ways.

THE EXECUTIVE COMMITTEE ON THE CONSTITUTION OF THE GENERAL MEDICAL COUNCIL.

In our notice last week of the Report of the Executive Committee of the Medical Council on the Constitution of the Council, we mentioned that appendices were added to the Report, containing various documents collected by the Committee for the purposes of aiding them in their task, and of confirming their Report. Of these documents the most interesting are the letters from former members of the Council. The President wrote to all the living ex-members of the Council, requesting them to favour the Executive Committee with statements of their views on the changes, if any, of constitution by which, in their opinion, the Council might be rendered more efficient for the duties which it has, or will have, to discharge. And in order to assist them, there was sent to them a memorandum by the President on some of the more recent proposals for changing the constitution of the Council. The memorandum contained a statement of the present constitution of the Council; classed the proposals made for altering its constitution under four categories—(1) by increasing its number, (2) by diminishing its number, (3) by altering the mode of appointment of members, (4) by altering the distribution of seats; and pointed out the methods by which it had been proposed to effect these changes—1. Increase of number: by adding six members elected by universal suffrage of the profession. 2. Diminution of number: (*a*) to make it nine, of whom three should be elected by the universities—one for each division of the kingdom; three by the corporations—one for each division; and three by universal suffrage—one for each division; or (*b*) to make the number twelve on some similar principle. 3. Altering the mode of appointment: keeping the number to twenty-four, to make room for universal suffrage members by taking away members from some of the bodies, as the Apothecaries' Societies, perhaps from the University of Durham, and from the number of Crown nominees. 4. Altering the distribution of seats: by a slight modification in the foregoing. For example—(*a*) perhaps requiring all electing bodies to elect by votes of *all* their members respectively, so as, without altering the cardinal *principle* of the Council, to give what is desired by some—a voice in elections to the whole medical profession; (*b*) by *requiring* the Crown so to appoint members that one may have a seat in the Upper, and one in the Lower House, to transact, as a member of the Council, public business for the Council in the Legislature.

Answers to the President's letter and memorandum were received from Sir George Burrows, Dr. Paget, Sir Thomas Watson, Sir James Alderson, Dr. J. R. Bennett, Mr. J. M. Arnott, Mr. Cæsar Hawkins, Dr. Embleton, Dr. Fleming, Dr. Macrobin, Dr. Allen Thomson, Dr. Sharpey, and Mr. Lister—most of whom replied at considerable length; three, Sir Thomas Watson, Sir James Alderson, and Dr. Sharpey, very briefly; and one, Mr. Arnott, begged to be excused from offering any opinion at all.

We will notice the short answers first. Sir Thomas Watson, whose letter is admirable for brevity and clearness of statement, expresses his opinions in three paragraphs. He says—"So far from thinking that the number of members of the Council should be augmented, I believe that a diminution of the number, however effected, would render the whole Council more efficient, by increasing the responsibility of each remaining member individually. To add to the number of members by universal suffrage of the profession, would simply, in my judgment, prove the ruin of the Council by spoiling it for its professed purposes. Perhaps it might be well if the Crown were to appoint one or two members from outside of the licensing bodies."

Dr. Sharpey considers that the most serious fault in the present composition of the Council consists in the large proportion of members elected by the licensing bodies, and the predominant influence of these bodies in the affairs of the Council. He apprehends that a reduction of the members to any really significant extent would be of doubtful expediency, and he thinks it would be preferable to increase the proportion of members especially representing the public interest. He remarks that the proposal to elect a certain number of additional members, by vote of the registered medical practitioners throughout the kingdom, has been deprecated as "election by universal suffrage," but that it must be remembered that while the electors would probably be inconveniently numerous, they would form an intelligent and educated constituency. But adds that he has not duly considered how far this proposal would be practicable, and accordingly feels unable to offer an opinion as to its advisability. In these circumstances he is disposed to recommend an increase in the proportion of members nominated by the Queen with the advice of the Privy Council.

Sir James Alderson cannot conceive it *possible*, in order to render the Council more efficient, that its numbers should be increased, or that a better arrangement for the representation of the several universities and corporations could be made. As to the nominations by the Crown, he has the fullest confidence in the scheme. But to meet the grievance pointed out by the medical profession in the provinces, he suggests the extension of the voting power from the governing bodies of the universities and corporations to their several constituencies.

The space at our command will not admit of our giving with any fulness the contents of the more lengthy letters received by the President, but we will endeavour to give the opinions of the several writers on each of the subjects named in the President's memorandum.

First and Second. As to the expediency of making any change in the number of the Council. Sir George Burrows thinks that whether the functions of the Council are enlarged or not, it would be most undesirable to increase the present number of councillors. He believes the present duties of the Council could very well be performed by a diminished number, and that, with fewer members, there would be less waste of time, less inclination to make long speeches, and less expense each session. But if the Council is to have new duties imposed upon it, and to be converted into a medical parliament, he thinks the number could not be advantageously diminished, and that then not only should the universities and medical corporations be represented in it as they now are, but places should also be found for representatives of the general practitioners (surgeon-apothecaries) of the whole kingdom. But even then any increase in the total number of the Council would tend to lessen its efficiency. Dr. Paget feels confident that the working of the Medical Council will compare favourably with that of the vast majority of other deliberative and administrative bodies. He admits that the business of the Council might be transacted more expeditiously and economically if the number of its members were reduced; but he finds serious objections to the various plans proposed for the reduction. He thinks there can be

no doubt that the ready and loyal acquiescence of the universities and medical corporations in the regulations and recommendations of the Medical Council has been facilitated by the fact of their representation in the Council; and that it would therefore be unwise and unjust to deprive any one of those bodies of its representation in the Council so long as the Council has the powers, conferred by the Act of 1858, of visiting them and calling them to account. To the proposal to take away the Crown nominees, he would answer by pointing to the services of Parkes, Sharpey, and others; but he thinks that, if new and larger powers are to be conferred on the Privy Council, it may reasonably be questioned whether it is necessary to have six Crown nominees on the Medical Council.

Dr. Risdon Bennett thinks an increase in the number of the Council very undesirable; and that any reduction below twenty would be of very questionable advantage. He points out that great advantages might be gained by a distribution of the greater part of the work among committees. Mr. Cæsar Hawkins would rather see the number of the Council diminished than increased.

Dr. Embleton and Dr. Fleming are of opinion that the Council is at present large enough; and Mr. Lister also does not think that any alteration in the number is in itself desirable. He is not aware that the present number has proved inconveniently large, and believes that any considerable addition would make the body unwieldy. Dr. John Macrobin thought the present time a very unfit one for making changes in the constitution of the Council, but that after the Joint Board system had been got into working order, it might be advantageous to have a Council somewhat reduced in numbers.

Third. An alteration in the mode of appointment of members—(*a*) by universal suffrage. This is condemned by Sir George Burrows, Dr. Paget, Dr. Risdon Bennett, Mr. Cæsar Hawkins, Dr. Fleming, and Mr. Lister; and some of them express their opinions against it very forcibly. Sir George Burrows thinks that the admission into the Council of a certain proportion of its members by universal suffrage would be most prejudicial to its reputation, and would impair its working power in the subjects which have hitherto occupied its attention. If such a plan be adopted, he writes, the physicians and doctors of medicine should be excluded from the electoral lists, and the election be confined to the general practitioners; and he fears that the class of persons who would be elected "would not be those most distinguished for their professional attainments, but rather bustling, talkative busybodies who had not succeeded in their professional career, and whose vacant time and personal vanity would prompt them to canvass for the honour of a seat in the Medical Council," whose presence there "would not add to the dignity, nor efficiency, nor authority of the Council, and who would by their loquacity add greatly to the duration and expenses of the sessions of the Council." Dr. Paget, besides other objections, dwells on the turmoil of the elections, and their enormous cost in trouble and money—enormous in proportion to the smallness of the possible advantage. Dr. Risdon Bennett thinks it the worst possible mode of election, and remarks that, "apart from the intolerable contention and turmoil in the profession which such a mode of election would entail, it may well be doubted whether such educational bodies as our great universities—not to mention the corporations—would submit to the control of a Council whose members were elected by haphazard, or as the result of dexterous scheming." Mr. Cæsar Hawkins writes—"As to universal suffrage, it seems to me difficult to propose any measure more absurd than to jumble together in an electoral body all the physicians, surgeons, etc., English, Scotch, Irish, and foreign, who may happen to be in practice throughout the whole extent of each division, amounting to many thousands, without any common feeling of union, in order to elect a representative of I know not whom;" and further on, "In fact, I would almost rather see a despotic Council of altogether non-professional men, nominated by the Crown, and responsible to the Government and to the public, than an unwieldy Council framed in this manner." Mr. Lister discusses the question from various points of view, and sums up by expressing the hope "that the Council will set their faces steadily against this proposed innovation." Dr. Macrobin apparently gave a qualified support to universal suffrage election. He thought it could not do any good, but that it would do no harm so long as the number of the Council was not increased by it. (*b*) By enlarging the constituencies of the electing bodies. Sir George Burrows thinks that if the Council is to be transformed into a medical parliament, with new duties and extended powers, all the electing bodies, or at any rate all the medical corporations, should elect their representatives by the votes of all their members, and not by the governing parts of those corporations. Sir James Alderson, as we have before noticed, Dr. Embleton, and Dr. Fleming, also approve of the plan. Dr. Paget and Mr. Cæsar Hawkins give a qualified approval, and both object to the principle being applied to the English College of Surgeons, on the ground that the Council of the College, though itself a small body, is elected by the Fellows, a large and highly educated constituency. Dr. Risdon Bennett thinks that perhaps the electoral area might be widened with advantage.

Fourth. Altering the distribution of seats. Dr. Risdon Bennett thinks it would be desirable and highly advantageous that two of the Crown nominees should be persons having seats in the Legislature—one in the Upper, and the other in the Lower House. And Dr. Embleton writes that the plan should be carried out as soon as possible. But Dr. Paget's opinion is "dead against it," because "to get into Parliament is to get into politics, from which the Medical Council has happily been wholly free"; because he sees no advantage, but the contrary, in any step towards converting the Medical Council into a Government department; and because the members, in the Upper House certainly, and in the Lower House probably, would not be medical men, and so the Council would be represented in Parliament by those of its members who knew least of its business. Mr. Cæsar Hawkins for similar reasons, and Dr. Macrobin, also disapprove of the proposal. As regards proposals for taking away members from some of the bodies, Dr. Risdon Bennett and Mr. Cæsar Hawkins would disenfranchise the two Societies of Apothecaries and the University of Durham; and Mr. Hawkins would also disenfranchise "the hybrid Faculty of Physicians and Surgeons of Glasgow," or join it, for representative purposes, to one of the Edinburgh corporations. While Dr. Macrobin recommended that the Apothecaries' Societies should not only be deprived of representation, but should cease to grant licences, and would either disenfranchise the Universities of Durham and of St. Andrews or would link them with other Scottish universities. Mr. Lister, on the contrary, thinks that conjoint representation is an unsatisfactory arrangement, and that the Scotch universities should each have her own representative.

Many of these letters are able arguments on the subjects submitted to the writers, and all are well worth reading as containing the opinions of men of eminence and position in the profession, and who have had years of intimate practical experience of the working of the Medical Council. We cannot quite agree with the very high praise given by some of the writers to the work done by the Council, and the effects produced by it; nor are we satisfied that the present consti-

tution of the Council is the very best that can be devised. But we are entirely in accord with the great majority of the writers, as our readers well know, in condemning what is called "direct representation" as highly undesirable from every point of view; while we approve of the idea of in some measure enlarging the constituencies of the medical authorities.

THE WEEK.

TOPICS OF THE DAY.

No one could for an instant suppose that our grave contemporary the *Times* would condescend to publish jokes, yet the following information is either a "bit of fun," or the medical profession in Prussia must set but poor value on their services:—"The Prussian Minister of Worship, Education, and Sanitary Affairs, Dr. Falk, has issued an ordinance regulating the fees which physicians may charge in Prussia for their services. This scale of fees comes into operation on October 1 next. The following are the chief points:—1. For the first visit to a sick person, two marks (2s.). 2. For each subsequent visit, one mark. But where several persons belonging to the same family, and dwelling in the same house, have to be treated at the same time, then, for the second and each succeeding person, only the half of those fees respectively is to be charged. The same rule will apply to the case of boarding-schools and similar institutions, as well as to prisons. 3. When there is a consultation of several physicians about the treatment of a sick person, including their personal visits, each physician will receive, for the first consultation, five marks, and three marks for each subsequent similar consultation. 4. On the occasion of the first visit to the physician's residence for his medical advice, one mark and a half (1s. 6d.). 5. For each subsequent similar visit, 75 pfennigs (9d.). 6. Where the services of the physician shall be required between the hours of ten at night and seven in the morning, the fees set down above shall be increased as follows:—(*a*) those set down under 1 and 2 shall be tripled; (*b*) those under 3, 4, and 5 shall be doubled. 7. Where, for the better ascertaining of the condition of the patient, it is necessary to make an examination with the laryngoscope, endoscope, or similar instrument, two marks. 8. For the administration of chloroform, etc., when required for the treatment of the patient, three marks."

The report of the Select Committee of the House of Lords appointed "for the purpose of inquiring into the prevalence of habits of intemperance, and into the manner in which those habits have been affected by recent legislation, and other causes," has been published, under date 17th inst. After examining witnesses from England, Scotland, and Ireland, and fully considering the subject, the Committee recommend that legislative facilities should be afforded for the local adoption of the Göthenburg and of Mr. Chamberlain's schemes, or of some modification of them, since it would seem, to say the least, unwise for Government to refuse to assist any community willing to put forth earnest endeavours to grapple with the vice of drunkenness and all its attendant evils. The report considers that it is improbable that, in the first instance, many boroughs would avail themselves of the powers to be granted, since, even in Sweden, the results of the experiment by one community are being carefully watched before introducing it over the whole country. It might fall to Birmingham alone to furnish the experience which would determine other towns to adopt or reject so novel and vast an undertaking. But, if successful, great public good must result; whereas, if it fails, the loss will affect only the community which has committed itself to the experiment. The recommendations of the Committee are twenty in number, and deal with the question of granting licences, the hours of closing, the definition of *bonâ fide* travellers, and similar subjects; yet, if the advocacy of a modified Göthenburg scheme be excepted, the Select Committee does not appear to have suggested any very novel expedients for controlling intemperance, exhaustive as their inquiries have undoubtedly been.

A Swedish steamer has arrived in the Tyne docks laden with rags for paper-making, shipped at Libau, and being the first vessel arriving with such a cargo since the precautions instituted against the introduction of plague from Russia, she has been placed in strict quarantine. So vigilant were the authorities that a gentleman, who had gone on board in the ordinary course of business, was detained, and not allowed to return on shore. The captain reported that his crew were in good health, and that there was no sickness on board. Arrangements have now been made, under the authority of the Privy Council, to thoroughly disinfect the cargo, and the gentleman after being fumigated was allowed to return home. A meeting of the Tyne Sanitary Authorities will shortly be held to take further precautions against the dangers likely to arise to the health of the port from the importation of cargoes of this dangerous character. It is stated that all the British vessels which have been engaged to bring cargo from Russia this spring have what are called "plague clauses" inserted in their charter-parties.

An important meeting of the Ludlow Town Council was held last week, to consider Mr. Curly's scheme for supplying the borough with pure water. It was agreed that Mr. Curly's plans and estimate for £5000 be accepted, and that they be submitted to the Local Government Board, and application be made for power to borrow a sum not exceeding £5000 to carry out the scheme.

We alluded last week to the wholesale importation of bad meat into Liverpool, and the authorities would now seem to be taking steps to check the evil, since a number of persons have recently been summoned before the magistrate for exposing unwholesome meat and fish for sale. Patrick Matthews, of Meath, was fined £5, and £3 17s. costs, for depositing for sale in a Liverpool slaughter-house two carcases of rotten and dropsical sheep. The Deputy Town Clerk applied for an order for the absolute destruction of 10,020 tins of salmon, 543 tins of lobster, and 226 tins of beef, the property of Patrick Cusack, a dealer. An inspector had told the Clerk that unless an order were immediately granted there would be a danger of the tinned material getting into the market. The defendant did not deny that the tins contained bad meat and fish, but he wanted to make use of them as manure. If the corporation would pay the price of the contents of the tins as manure, he would consent to their being destroyed. The Deputy Town Clerk ridiculed the suggestion, and the magistrate granted the order for destruction.

This year's Congress of the Social Science Association, to be held at Manchester, promises to be a most successful and popular gathering. At a meeting recently held at the Town Hall, under the presidency of the Bishop of Manchester, many of the leading public men of the district, including the Bishop of Salford and several members of Parliament promised their personal support, and an influential committee was appointed to make the preliminary arrangements.

The question of the legality of the practice of cremation in this country remains practically where it was, although the Earl of Onslow last week called the attention of the House of Lords to the subject. The remarks principally dealt with the matter from a sensational point of view, but in answer to a deputation which waited upon Mr. Cross on

the 21st inst., the Home Secretary suggested that before the Cremation Society of England proceeded further it would be better for them to induce a member of Parliament to bring in a Bill, in order that the matter might be fully discussed. The deputation explained the general principles on which they proposed to establish cremation, but, in deference to Mr. Cross's views, they promised to take no further action until the question raised could be settled by full discussion in Parliament; meanwhile they wished it to be distinctly understood that their objects were purely sanitary, social, and scientific. The alliteration is charming, but did not move the hard heart of the Home Secretary. The deputation was introduced by Sir Henry Thompson, and was accompanied by Mr. D. W. Eassie, the promoter of the scheme.

It is satisfactory to find that upon the present occasion the Government has allowed no delay to occur in recognising the services of those officers who so gallantly defended the improvised position at Rorke's Drift on January 22 last. Lieutenants Chard and Bromhead have been promoted, Assistant-Commissary Dunne and Acting Assistant-Commissary Dalton have each received a step, and Surgeon James Henry Reynolds, M.B., has been gazetted Surgeon-Major. This, it is rumoured, is only the first instalment of rewards, as their claims to the Victoria Cross, or nomination to the honours of the Bath, will no doubt be considered later on, when the present campaign has been brought to a conclusion. The prompt action taken by the authorities in this matter will receive the cordial approval of the country.

At the usual fortnightly meeting of the Metropolitan Asylums Board, held on Saturday last, the returns showed that at Fulham 40 cases of small-pox had been admitted during the period, 7 had died, and 40 had been discharged, leaving 110 under treatment. At Hampstead 13 had been admitted, 2 had died, and 9 had been discharged, leaving 29 under treatment. At Deptford 37 had been received, 10 had died, and 59 had been discharged, leaving 171 under treatment. The total results, therefore, were 99 received as against 108 in the previous fortnight, 19 deaths as against 22, 108 discharged as against 114, and 310 remaining under treatment as against 338 a fortnight previously. At the Stockwell Asylum 29 cases of fever had been admitted during the fortnight, 2 had died, and 28 had been discharged, leaving 83; and at Homerton 17 had been admitted, 2 had died, and 18 had been discharged, leaving 117—a total of 200 under treatment as against 204 a fortnight ago. The great majority of these cases were scarlet fever. Plans for erecting a typhus fever pavilion were presented, and ordered to be submitted to the Local Government Board for approval, with a request that orders might be issued for the managers to raise a loan of £6000 to carry out the work.

The Manchester Corporation Water Bill, better known as the Thirlmere scheme, came before a Select Committee of the House of Commons, on Monday last, on its merits. The case for the promoters was opened by Sir E. Beckett, Q.C., who stated that all opposition had been withdrawn, except that of the Leigh and Hindley Local Board, and that of Mr. Ainsworth, of Bolton. Mr. Bateman gave evidence in support of the Thirlmere scheme, and the chairman declared the preamble of the Bill to be proved.

HOSPITAL REFORM FOR THE METROPOLIS.

A NUMEROUSLY attended private meeting was held last week at the residence of Sir T. F. Buxton, in Grosvenor-crescent, for the purpose of discussing the adequacy of hospital accommodation in the metropolis to the wants of the populace, the need of uniformity in the treatment of patients, the financial state of establishments supported mainly by voluntary contributions, and the possibility of introducing the provident system, together with a better organisation, by the aid of one central board for all the hospitals in London. Mr. E. H. Lushington, the Treasurer of Guy's, presided. In the course of the proceedings a general agreement was expressed in the proposition that the funds of the large hospitals are not applied to the best purpose, or in compliance with the wishes of the founders. From a map produced to the meeting it appeared that, taking Blackfriars-bridge as a centre, there are fifty-one hospitals in the west, and only fifteen in the east, of the metropolitan area. Of the total number of these institutions, fifty-one are special, and fifteen general. The great preponderance of hospitals in the West of London was accounted for by Mr. J. H. Buxton on the grounds that most of those of a special description have been founded less for the benefit of the many than for the benefit of a few. The inequality of general hospital accommodation was strongly insisted upon, it being shown that the principal hospital in the East of London receives three times the number of accident cases brought to any West-end institution. With regard to out-patients, it was remarked that 600,000 persons annually apply for medical relief to the thirteen great hospitals; that the cost of medicines to meet their requirements is £15,000 a year; and that from three to seven hours is the time occupied by each patient in waiting for and obtaining advice and treatment. The rush of patients was described as being such as to necessitate hasty, if not perfunctory attendance, and the chairman dwelt forcibly on the debasing influence of this state of things. He asserted that very many persons who are well able to pay a moderate sum for medical help are to be found among the crowd waiting to receive gratuitous medicines, which they have frequently been known to pour into the gutter. The feeling of the meeting was in favour of applying for a Royal Commission to inquire into the whole question of hospital administration, but, yielding to the arguments of Mr. Stansfeld, that some specific mode of reform should be decided upon before application to Mr. Cross, the meeting agreed to appoint a committee to collect information, and to prepare a statement with a view to future action.

CASE OF MR. THOMAS MILLERCHIP.

THE profession will be very glad to hear that when the conviction of Mr. Millerchip was brought under the notice of the General Medical Council, it was agreed "That the Council having considered the case of Thomas Millerchip, do not 'see fit to erase his name from the Medical Register' under Clause 29 of the Medical Act." We may hope that the Home Secretary—who has now, we believe, the extremely severe and ruinous sentence passed on Mr. Millerchip under consideration—may feel enabled to take a favourable view of the case, and be induced to remit the remainder of the term of his imprisonment.

MEDICAL PARLIAMENTARY AFFAIRS.

Cremation.—In the House of Lords, on Friday, March 21, Lord Beauchamp, replying to the Earl of Onslow, said the practice of cremation ought not to be adopted without full consideration. In cases where death was caused by violence or poison, the result of this practice would be that in many cases the ends of justice would be defeated. The members of the Cremation Society had had an interview with Mr. Cross, and they had promised not to proceed with the works until they had taken the opinion of Parliament upon the proposed new mode of burial.

Disqualification by Medical Relief Bill.—Lord Aberdare moved the second reading of this Bill, which had come up from the House of Commons. At present a man forfeited his right to vote if he sent any of his family, suffering from infectious disease, to a district hospital for treatment. The Duke of Richmond said that the Bill, though only consisting

of one clause of ten lines, was full of anomalies and mistakes. He doubted if this measure would have passed the House of Commons if the President of the Local Government Board had not been seriously indisposed at the time. He could not agree to any infringement of the law which disqualified from voting after receipt of poor-law relief, whether medical or otherwise. In Ireland a measure passed in 1862 provided that persons admitted to the fever hospital or infirmary of the workhouse may, on repayment of the cost of maintenance, be free from any disability by reason of having received relief from the Crown rates. Such a measure he could agree to, but the Bill now under discussion, if passed, would override this. Moreover, no provision was made in the Bill for the maintenance of persons during their residence in the pauper asylum. They might receive medical relief without disqualification, but other relief paid out of the rates would disqualify them. He did not object to the principle of the Bill, but would ask leave to introduce amendments in committee, so that it might include the cost of maintenance, and thus follow the lines of the Irish Bill. The Bill was read a second time.

Medical Inspection of Recruits.—In the House of Commons, Colonel Stanley, in reply to Mr. Gower, said that, as recruits were inspected more carefully by army medical officers than by militia surgeons, an arrangement was in contemplation for employing army medical officers on half-pay, care being taken that they should be fit to carry out the duties assigned to them.

GENERAL CORRESPONDENCE.

EGYPTIAN CRANIA.

LETTER FROM MR. W. S. TUKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The ethnologist in search of skulls of the ancient Egyptians must be prepared for disappointment, not because they are not to be found, but because they are not to be had; and for the interests of ethnological science, it is in this case essential "to have and to hold." On New Year's-day I made an expedition in search of mummy heads, in order to obtain some for the Museum of the College of Surgeons in accordance with the known wish of Professor Flower. Two of our party had in the morning visited the hills above Assiut, the face of which is riddled with tombs, and they reported having seen many complete heads of mummies; so, accompanied by one of them and Kfafi (a sailor), I went to see if I could secure any. Near the base of the hill are many heaps of rubbish, with more or less perfect human bones, bits of mummy cloth, and numerous empty tombs. After awhile we saw Kfafi running after us, holding aloft in triumph the complete head and thorax of a mummy. It was too big to go into the basket which he carried, so one of the donkey-boys offered to wrap it in his outer garment in return for *bakshish*. After more digging, I found three perfect heads, and numbers more might have been obtained. These and a few more relics were carefully packed in the basket, and Kfafi was instructed to carry them at once to the *dahabieh* while I went to the top of the hill. Going up, we saw many large rooms cut out of the rock, columns of which had in some places been left. Many of the hieroglyphs upon the walls were very perfect. On descending we found a vociferating crowd assembled round poor Kfafi and the unfortunate basket, among whom I discerned two or three soldiers and other dignitaries. Then ensued a great uproar, in which, of course, we could understand nothing, except that some harm was intended to our prize. At last I took the largest mummy—a whole head and thorax—from its wrappings, and placed it in the bosom of the principal soldier, intimating that he might have it if he wanted it. He seemed rather at a loss to know what to do with his precious burden, and, to judge from the laughter which ensued, the whole scene must have been extremely comic. At last the embarrassed functionary gave the body to a boy, who ran off with it and began to bury it in the sand. I was sorry to see my "find" diminishing in this way, but it could not be helped, and as I did not want to lose the others if I could help it, I cried, "*Dahabieh!*" and, mounting on our donkeys, we rode off in spite of their protests. Seeing us start, there was nothing for our enemies to do but to follow, saying the ominous word "Pasha." The large mummy had by this time been brought back, and the whole basketful was borne behind us in the procession on the top of Kfafi's head. In this ridiculous fashion we rode into the town, but it was not long before we found that they did not intend us to go to the *dahabieh*, but to some Government functionary, and thither our faithful Kfafi was conducted. Accompanied by our dragoman we went to the house of the Pasha, and discovered a corpulent and grubby individual sitting with two or three other worthies on a small couch. He informed us that it was absolutely forbidden by the Government to remove antiquities, and that were we not travellers he could send us to prison for life. Meantime, Kfafi was brought forward in a state of great trepidation, for it seems he had already been summarily imprisoned. The Pasha told him to go now, but that if he had not been with us he would have been bastinadoed and sent to prison for life—which I daresay is quite possible in this unfortunate country. Poor Kfafi! He got somewhat twitted on his return to the boat, but a couple of francs made him quite happy again. Of course we had to drink a cup of coffee with the functionary, and depart without our crania. There is doubtless something to be said in favour of the regulation which brought us to grief, if it preserves for Egyptologists the materials for study, but in this case the skeletons are lying about in a quantity of rubbish, utterly useless to anyone, and no one could interfere with you for destroying them on the spot, so long as you did not remove them. It is, therefore, a mere "dog in the manger" feeling which induces this vexatious action. Hoping the College Museum may yet be enriched with mummy skulls, I conclude this hastily written letter. I am, &c.,

WILLIAM SAMUEL TUKE, M.R.C.S.

On the Nile, Dahabieh "Hedwig," February, 1879.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MARCH 4.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

(*Continued from page 329.*)

A PECULIAR AFFECTION OF THE EPIDERMIS OF THE PALMS AND SOLES.

DR. DAVIES-COLLEY showed a hand which had been sent to him from Calcutta. It had been removed, after death, from a Brahmin, who had died of pyæmia after an accident, at the age of forty-five. The palms and soles were covered with many small spiny tubercles which extended also along the margins of the phalanges. There were also some leucodermatous patches. The microscope showed great thickening of the horny portion of the epithelium, with flattening of the papillæ. The condition, in fact, was like a profuse development of small ordinary corns, but the tubercles were too prominent and numerous, and occurred on parts where there was no pressure. Mr. Colley asked what the condition ought to be called.

Dr. HOGGAN said the condition was one of scleroderma, that term being used in the general sense, and was not uncommonly seen at skin hospitals.

The PRESIDENT pointed out, in connexion with some remarks of Mr. Macnamara on the leucodermatous condition, which he said was quite common in India, that the peculiarity of the specimen was the existence of a great number of small, tubercular spines. At his suggestion it was referred to the Morbid Growths Committee for further examination.

MALFORMATION AND PROLAPSE OF THE URETER.

Mr. DAVIES-COLLEY showed a bladder and ureter taken from the body of a girl aged eighteen months, who had come under his care in October, 1878, presenting a vascular body at the external orifice of the urethra. The child had always strained in micturition. Four weeks previous to admission it had had measles, and a week later this projection had suddenly come down during micturition. He had at first thought the body a vascular growth of the urethra, or a polypus of the bladder; but on examination under chloroform he found it had a funnel-shaped extremity

with a central canal. It protruded an inch beyond the orifice of the urethra, and was there an inch and a quarter in diameter; inside the urethra it was half an inch thick. He passed a catheter into the central canal up towards the left loin, and drew away some pus; at the same time he introduced another catheter along the urethra by the side of the tumour, into the bladder, drawing away normal urine. He now diagnosed dilatation and prolapse of the ureter, and having passed a double ligature through the neck of the projection, he cut off the dilated extremity and returned the rest into the bladder. The child died nine days afterwards of exhaustion. Post-mortem, there was found a large abscess in the left kidney, which was sacculated and presented the appearances found after long-standing obstruction in the urinary tract. The left ureter was dilated to the size of the little finger; and at its lower orifice the mucous membrane presented a ragged edge or ridge—the result, doubtless, of his operation. There was slight inflammation of the bladder. This prolapse of the ureter had probably been due to some long-standing obstruction or hypertrophy at its vesical orifice. There might have been ulceration at first, which had subsequently given way, and the flow of urine had then caused prolapse of the ureter into the bladder, and at last into the urethra. There had probably been no true intussusception of the ureter, as its external coats were quite normal.

Mr. WALSHAM said that a specimen in the museum of St. Bartholomew's Hospital was of interest in this connexion. It presented prolapse of the ureters into the bladder, and had been taken from a man who had suffered for a long time from urinary obstruction. The orifices were very narrow, while the ureters above were dilated. There was marked hypertrophy of those muscular fibres of the bladder which extend from the orifice of each ureter to the prostate—called by Sir Charles Bell the muscle of the ureter, and supposed to prevent regurgitation of urine into the ureters during micturition. Hypertrophy of these muscular fibres would tend to produce contraction of the ureter orifices. In one of the prolapsed portions there was a calculus, and the internal surface of the ureter above the stone was ulcerating. If this had gone on and given way the result would probably have been similar to the condition in Mr. Colley's case. In the specimen he had referred to the prolapse had probably been caused by the straining efforts of the abdominal muscles.

PNEUMOTHORAX FROM PERFORATION OF LUNG.

Dr. SAMUEL WEST showed two lungs illustrative of this condition. The first was from a male, aged twenty-two, who had a family history of phthisis, had been ill for two years, and had had hæmoptysis twelve months before his admission into Victoria-park Hospital. After improving somewhat, pneumothorax suddenly occurred in the right chest. Patient was relieved by paracentesis, but died forty-eight hours after the lung had given way. Post-mortem, the heart was found displaced leftward, the lower surface of the diaphragm presented a marked convexity, and the liver was depressed and twisted in the peculiar manner seen in cases of right pneumothorax, the interlobular notch corresponding to the top of the ninth left rib. The right lung was found collapsed. There was an oval, funnel-shaped perforation, the size of a No. 3 catheter, situated in the middle of the upper lobe in its mid-lateral surface. The funnel shape was probably due to the retraction of the pleura after the perforation. The opening communicated with a cavity the size of a cherry. There were several other small cavities in the lung. There were only two ounces of fluid in the pleural cavity. The left lung was emphysematous, with a few small superficial cavities in its upper lobe, but no cheesy masses. The second specimen was the right lung of a woman, forty years of age, who had a good family history, and had been ill for only four months. Right pneumothorax occurred, and the organs were found displaced as in the other case. The opening in the lung was in the postero-lateral aspect, and communicated with a caseous cavity in the middle lobe. The upper lobe also presented a large cavity. The left lung contained many caseous masses and some small cavities. There was also much recent catarrhal pneumonia. Dr. West remarked that in the last case the pneumothorax had followed rapid caseation and softening, after which it usually occurred. It was rather rare in the non-caseating chronic forms of phthisis like the first case he had narrated.

THE RECENT VISCERA AND MUSCLES FROM A CASE OF SULPHURIC ACID POISONING.

Dr. NORMAN MOORE exhibited these organs, taken from the body of a man who had been admitted into St. Bartholomew's Hospital the previous day, having swallowed half a pint of commercial oil of vitriol, probably with a suicidal intent. He was not insensible when admitted, but was suffering intense pain, and he died in an hour and a half. There was a stain down each side of the chin. At the necropsy, twenty-six hours after death, the tongue and mucous membrane of the fauces were found to be greyish, but not greatly affected. The walls of the œsophagus were saturated with the acid, which had penetrated so far as to affect the pericardium and heart posteriorly. The diaphragm was also saturated, but neither it nor the œsophagus was perforated. The lung-tissue at the base was hardened for an eighth of an inch by the acid. The stomach and upper portion of the bowel were represented by a mere fringe of black rotten material. The mucous membrane of the lower portion of the small bowel and of the whole length of the large bowel was greyish, and evidently affected by the acid. The capsule of the liver was hardened, and its substance soft and pulpy, so that the viscus felt like a bag of fluid. The spleen was similarly affected; the kidneys less so. There had also been some soaking of the acid through the abdominal wall, the external surface round the umbilicus being of a greyish colour. Many of these changes had, doubtless, resulted from the continued action of the acid after death. The case was noteworthy on account of the large quantity of acid swallowed, and the extent of the resulting changes, the whole digestive tract, from the tongue to the rectum, having been affected.

CANCER OF THE PERICARDIUM.

Dr. MOORE also exhibited this specimen, which was taken from a woman aged fifty-three, who had been an in-patient of St. Bartholomew's Hospital, under Dr. Church. For three months before admission she had had a swelling at the outer third of the left clavicle. Post-mortem, this tumour was found to be due to enlargement of lymphatic glands which were infiltrated with cancer and adherent to the clavicle. The mediastinal glands were affected, and the right side of the pericardium was extensively infiltrated; but the heart itself was not involved. The sternum was also invaded, much of its bony tissue being removed, and replaced by cancerous growth. The microscope showed in the new growth the presence of numerous large epithelial cells with only a scanty fibrous stroma. The disease probably originated in the mediastinal glands.

RODENT ULCER OF THE FACE AND NOSE.

Dr. SANGSTER exhibited, for Mr. Bellamy and himself, a specimen with microscopic preparations and drawings, illustrative of this affection. Mr. Bellamy had removed the mass from a man aged forty-six. The growth was of seven years' standing, and presented the characteristic appearances of a large rodent ulcer, involving the whole of the left side of the nose and the adjacent parts. Sir J. Paget and Mr. Hutchinson had both seen the case before, and had each advised the removal of the diseased parts, to which the patient had not then consented. Microscopic examination of the new growth showed that it consisted essentially of epithelioid cells, containing large oval or round, deeply-stained nuclei, with one or more nucleoli scattered in the granular contents. The cells were packed in the meshes of fibrous trabeculæ, and followed no definite arrangement. At the advancing edge of the new growth there was a boundary zone of inflammatory cells, many of which invaded its substance, causing retrograde changes. Scattered among the epithelioid cells were free nuclei undergoing division. Where the new growth was not ulcerating to the surface the Malpighian layer which still covered it showed great irregularity, but only slight hypertrophy; and there did not seem to be any structural continuity between the compact Malpighian cells and the loosely arranged epithelioid cells below. Here and there isolated tracts of Malpighian or altered sebaceous cells were seen surrounded by the epithelial infiltration, apparently cut off by its onward progress. As the sounder structures were approached, the hypertrophy of the Malpighian layer decreased, but its irregularity was still marked, mainly owing to the distortion and hypertrophy of hair-

follicles choked with epithelial *débris*. The sebaceous glands of the specimen had also undergone changes. Groups of cells were cut off by the advance of fibrous processes from opposite sides of the lobules. These cells lost their characteristic reticular appearance towards the periphery, and became flattened and arranged concentrically, so as to give in places an appearance resembling epithelial "nests"; but though enclosed by the advancing new epithelioid growth the real nature of these pseudo-nests was clearly traceable. The cells lining the tubules of the sweat-glands in the neighbourhood of the new growth showed degenerative changes. There was much inflammatory cell-infiltration of the growth, especially at its margin and beneath the rete Malpighii. No true epithelial "nests" were detected. The large amount of inflammation present might be in great measure due to inefficient cauterisation, which some homœopaths had adopted in the treatment of the case. Dr. Sangster thought that the chronic history of the case, its as yet non-infective character, and the absence of epithelial "nests," were important considerations in negativing the supposition that the growth might be of the nature of an epithelioma.

Mr. T. C. Fox remarked that the epithelioid development was similar to the condition in the specimens exhibited by himself and his brother at a recent meeting of the Society. He had not been able to recognise in Dr. Sangster's microscopic preparations the changes in the sebaceous glands described by that gentleman.

Mr. Bellamy, at the suggestion of the President, referred the specimen to the Morbid Growths Committee for further examination.

EPIDEMIOLOGICAL SOCIETY.

Wednesday, March 5.

Mr. J. Netten Radcliffe, Vice-President, in the Chair.

The Diagnosis and Causes of Yellow Fever.

Mr. Lawson, Inspector-General of Hospitals, read a paper on this subject. After alluding to the controversy which had been carried on so long about its nature and character, the author pointed out that though there was no single symptom in yellow fever that was not found in other diseases, yet the manner in which these were grouped, and the order in which they occurred, served to distinguish yellow fever from every other which might be mistaken for it; the distinctive clinical feature of the yellow fever being the occurrence, usually on the third or fourth day, of albumen in the urine, accompanied by desquamation of the bladder, and on the following day of the tubes of the kidneys, with great reduction or disappearance of the chlorides, and reduction of urea. Fever with these and the other characters of yellow fever, fully developed, was met with both in the continued and periodic forms. As to the causes of the disease, it was shown that healthy persons, going into a locality where its cause was known to be in a state of activity, were very liable to be attacked, but that if they or others infected in such a locality returned to a healthy one, they went through the fever then without communicating it to anyone, even though they might be numerous, and many susceptible subjects be in communication with them. Healthy localities were often in close proximity to those where the disease originated, as at the Military Station at Newcastle, in Jamaica, when, in 1856, in a cantonment on the narrow crest of a mountain spur, there ran three sickly zones alternating with four healthy ones, in a length of 800 yards. Such facts indicate that the immediate cause of yellow fever must be an emanation given off from certain localities. Yellow fever has been supposed to be endemic in the West Indies and around the Caribbean Sea and Gulf of Mexico. On the West Coast of Africa it was only an occasional visitant, with considerable intervals of absence. In the four epidemics of 1823, 1829, 1837, and 1847, the commencement of each of which was recorded minutely, it first appeared at Sierra Leone, and without any trace of infiltration. In 1845, when the *Eclair* was attacked, the disease occurred in her without importation, and also in Sierra Leone after she left; and afterwards, when it was prevailing at Boa Vista towards the end of the year, a sporadic case proved fatal in Goree, the nearest point on the coast to Boa Vista. From these and similar facts it was concluded that a factor of very extensive operation became active from time to time, determining the production, in suitable localities, of emanations the immediate cause of the disease. Such localities may be on shore or in ships; in the latter the source of the disease may continue active for months, during which they may carry it to distant countries, and there cause yellow fever. At Swansea, in 1865, the disease occurred in persons 150 to 200 yards from the source; and at St. Nazaire, in 1861, a mason, not known to have been nearer the infected vessel than 245 yards, was attacked. A Dr. Chaillou, who visited some of the cases which occurred in one of these outbreaks, died of what was considered yellow fever; but as bilious intermittent of unusual severity was prevailing at the time, and there is nothing mentioned in the details of the case sufficient to separate it from others, it cannot be accepted as a case of yellow fever, or as showing a power of transmission from man to man which was not displayed in any other instance on this occasion. Porous materials, such as clothing, etc., may undoubtedly imbibe a quantity of the emanation if exposed to places where it is generated, and some American authors state that when a box of such articles, packed in a yellow fever locality, has been opened at a distance, that disease has sometimes been excited among those present. The general impression in yellow fever localities, however, is that the disease produced by the quantity carried in the ordinary clothing is infinitesimally small. There is no evidence to show that persons labouring under yellow fever, or the bodies of those who have died of it, give off a poison capable of exciting the disease. Should the emanation from a ship with a source of yellow fever on board, or fever fomites, meet with a suitable locality on shore, can it fructify so as to produce a fresh focus of the disease giving rise to a similar emanation? Many believe it can, but to establish the point it is necessary to exclude the possibility of the disease having arisen at such points under the action of the general factor mentioned above, which at present there are no means of effecting.

In the discussion which followed, the Chairman, Sir W. R. E. Smart, Sir Joseph Fayrer, and Dr. Caddy took part.

The Models for the Statue of Harvey.—We are requested to state that the models for the statue of Harvey now being exhibited in the picture galleries at the South Kensington Museum will remain on view during next week until Saturday evening.

Examinations for Uterine Disease.—Prof. Gaillard Thomas, in one of his clinical lectures (*Phil. Med. Times*, February 1), after alluding to the frequency of unsatisfactory diagnosis in uterine and ovarian disease, says—"You are aware that the success of a case in court depends upon the lawyer's power of cross-examination, and the same skill is most useful to the physician. There is the greatest difference in this respect among different members of our profession, and, while one will find out everything there is to be learned in this manner, another will bring out nothing at all. First of all, then, I wish to show you how to examine a patient by questioning. Every physician should have a system for doing this: not that I mean that each one should invent an original plan, but simply that he should try to find out the best method and follow it. A few years ago I had a 'diagnosis class' at Bellevue, which was the most interesting one with which I was ever connected, and the students found it a very rapid way of learning. Some who made the most ridiculous blunders in the early part of the course, really became very skilful diagnosticians by the time it was over. Each was obliged to make out his own diagnosis, and each had the benefit of the mistakes which the others made. Now as to the physical examination. I will show you how every patient is examined in the private room before coming in here; but I will not make the examinations before the class. I am aware that this is very customary in Europe, but it cannot be done here, for if I should attempt it there would soon be no clinic at all, on account of the lack of patients. But even if I could do so, it would really be of no advantage whatever to you, because it would be impossible to see anything from the benches where you sit. I have here a patient, however (pointing to a wooden model), who does not mind exposure, and upon whom I can demonstrate certain uterine affections much better than upon the living subject."

NEW INVENTIONS AND IMPROVEMENTS.

SPARKLING BRUT SAUMUR.

We have received a sample of the pure sparkling wine of Saumur, unmixed with liqueur, which is designated by the term *brut*; and we append the following observations thereon from the pen of a former contributor, whose criticisms on wine have often appeared in our pages:—

Anyone who has watched the course of the wine trade and use of wine during the last few years in England, will have great reason to be pleased at a substantial improvement which has taken place. The coarse, sweet, and highly fortified wines of heretofore are giving way before lighter, purer, and wholesomer wines, which are beverages and not drams. Bordeaux has largely taken the place of port. Even sherry now is boasted of as being unfortified, and as resembling more what the ancient "sack" of our forefathers was. The wines mostly in use now are calculated to promote appetite and cheerfulness. I am not at all disposed to condemn absolutely the use of port and sherry. Each has its place as a powerful stimulant, and is invaluable at the right time and place; but for common, every-day, popular use we want something lighter—something calculated to promote the innocent gaiety of young people, and not the potent stimulant fit only for the stomach of the aged and infirm. Amongst the improved popular changes in the use of wine, next in importance to the substitution of Bordeaux for port, we reckon the universal diffusion and enormous consumption of sparkling Saumur under its own name. Within a very few years all the sparkling wine in common use was called *champagne*. Real champagne then, as now, was very expensive. To use it largely, even at considerable entertainments, was considered a mark of luxury and ostentation; but, singularly enough, a great deal that was sold and used as *champagne* was not champagne at all, but the product of the Saumur district, 300 miles away to the westward on the banks of the Loire.

Concurrently, however, with the publication of a former paper on this subject in the *Medical Times and Gazette* of November, 1874, a well-known firm of wine merchants, who have agents in every town in the United Kingdom, introduced the sparkling Saumur boldly under its own name, and at a fair price, and that a very low one. Great are the benefits, both moral and material, that have resulted from this measure.

In the first place, the public can get a good wholesome sparkling wine at a low price, without being cajoled into paying an extra price for it under the name of champagne. Secondly, they can drink it freely, without the suspicion of extravagance or prodigality; and thirdly, the physician is furnished with a most potent, agreeable, and effusible stimulant, which he can use with the best effect when the working powers of mind or body require a gentle lift.

In order that my readers may see clearly what are the improvements in the sample of wine before us, it is as well to recapitulate the leading points in the manufacture of sparkling wine, such as I witnessed it during a visit to Saumur in the autumn of 1874, and described in the *Medical Times and Gazette* at that time. The grape-juice may be yielded by either white or red grapes. The latter are supposed to yield a stouter wine, and if the juice is fermented without the skins the colour is the same as that of wine made from the white grape.

The juice of each year's harvest is divided into two portions—one half is fermented by itself, and put by till next year; and the other half is mixed with that reserved from the year before. Thus, supposing the year to be 1874, half the grape-juice is put by to be mixed hereafter with half of the grape-juice of 1875; the other half is mixed with that which has been similarly reserved from 1873. The mixture of half this year's and half last year's juice is then put into huge *cuves* or vats, where it is allowed to ferment for a fortnight, then it is drawn off into barrels, in which it remains ensconced in the deep, dark, cool chalk-stone caves in the hill-side, slowly perfecting its fermentation and "eating up its sugar," and letting drop its lees, as the saying is, till about the May next it is found to be a dry, sugarless, some what austere wine.

Now follows a series of operations, the object of which is to charge the wine with carbonic acid and to deprive it of its fermentescible matter. For this purpose a very small quantity of the finest sugar-candy is added, in order to furnish food for the fermenting torula and to supply the carbonic acid. The wine is then bottled, and the corks tied down, and it is allowed to remain for some months. When this secondary fermentation in bottles has advanced far enough, as is shown by the formation of a certain amount of deposit, the bottles are placed with their necks downwards and are subjected to a series of gentle movements—a dexterous turn or a shake—till the deposit is coaxed into the neck of the bottle lying close upon the cork. This is called "*remuage*." Then follows the operation of "*dégorgement*."

The workman seizes the bottle, holds it in a slanting upright position, and, quick as thought, cuts the wire and string that confine the cork: out flies the cork, and, at the same time, as much of the wine as filled the neck of the bottle, bringing with it, if the operation is conducted happily, all the deposit that has collected close to the cork.

Now begins the difference that marks the manufacture of the ordinary sparkling wines and of the *vin brut*. (I quote from M. Maumené's work, "Sur le Travail des Vins.") "Arrived at this stage, we have the wine entirely clear, and the bottle no longer contains the smallest deposit, but it is very often too thin and austere to please the customer, and in order to render it agreeable to drink it is usual to add a considerable quantity of sugar, which is technically called '*le dosage*.'" "At this time," continues M. Maumené (1858), "the *dosage* of champagne wine is carried to extremes, insomuch that one-third of the bottle may be composed of liqueur—that is to say, syrup." "This addition," continues M. Maumené, "has been demanded by the taste of the public, which is more and more in favour of wines light in themselves, but rich in sugar." I may say, in a parenthesis, that improved modern English taste will prefer a wine like the *vin brut*, stout in itself, but poor in sugar. I may also mention, by the way, that the liqueurs added in the *dosage* of different wines have been at times of extremely complex composition, and that whilst the simplest consisted of sugar-candy and finest Cognac, some champagne wines expressly *destinés à l'Angleterre* contained port wine, and even Kirsch and tincture of raspberries. But this is a thing of the past.

I need not dwell further at present upon the manufacture of the ordinary sparkling wine. The difference of the *brut* wine is this: that after the *dégorgement* the wine, instead of being dosed with liqueur, is simply filled up with sparkling wine of the same *cuvée*. Three months afterwards the bottles undergo a second *dégorgement* to eliminate the slightest disposition to fermentation, and the wine is kept in bottles at least thirty months before it is delivered for consumption. Now, I am not at all disposed to disparage the ordinary sparkling Saumur, which I find to be an admirable remedy for the depression of a lingering illness. But added to the practical experience of the last dozen years, during which I have known these wines, I may give the following theoretical reasons for the superiority of *vin brut* as a stimulant in many cases, more particularly dyspeptic, and others where the consumption of sugar should be avoided. First of all, the *brut* wine is stouter and more generous, while, as M. Maumené observes, "Liqueur, like charity, may cover a multitude of faults in wine." Secondly, it is more appetite-compelling,

Thirdly, the extra *dégorgement* and the absence of *dosage* with sugar and brandy render *brut* Saumur less liable to disagree, while it meets for invalids a want that has long been felt by the medical profession, but which perhaps previously has not been within general grasp, viz., that of a light, pure, sparkling, and moderately stimulating beverage at a reasonable price. The man in perfect health may drink which he likes best, without fear of the small quantity of sugar in the ordinary wine; but if he prefers a dryer wine, here it is.

We will only add that the importers of this Sparkling Brut Saumur are the same wine merchants who originally introduced the ordinary sparkling Saumur wines into England—viz., Messrs. W. and A. Gilbey, of the Pantheon, Oxford-street.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held from Monday to Thursday, March 10-13, the following candidates were successful:—

For the licence to practise Medicine—

Burke, Julio Page. | Pentland, Henry.
Conry, John Templer Crosbie. | Roberts, James Dixon.
Sinclair, John.

For the licence to practise Midwifery—

Burke, Julio Page. | Fulton, James.
Conry, John Templer Crosbie. | Gillies, Niel.
Dundee, Isaac Chichester. | Pentland, Henry.
Sinclair, John.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 20:—

Brandreth, Charles Lewis, Avenue-parade, Accrington.
Hardy, Henry Louis Preston, Finchley.
James, Alfred, Brynteg, Merthyr Tydfil.
Turton, James, Florence-road, New Cross.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Clarke, William Jenner, Charing-cross Hospital.
Raine, Arthur Robert, London Hospital.
Terry, Henry George, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

LE CRONIER, HARDWICK, M.R.C.S. Eng., L.R.C.P. Lond.—Resident Medical Officer to the St. Marylebone General Dispensary.

SHAW, WILLIAM, M.B. Edin., M.R.C.S. Eng.—Junior House-Surgeon to the Cheltenham General Hospital.

WILLIAMS, GEORGE, M.R.C.S.E., L.R.C.P. Edin., L.F.P. & S. Glasg.—Honorary Surgeon to the Liverpool Eye and Ear Infirmary.

NAVAL, MILITARY, &c., APPOINTMENTS.

WAR OFFICE.—Surgeon-Major Henry Bolton Hassard to be Deputy Surgeon-General on augmentation; Surgeon-Major King John Parr retires upon temporary half-pay; Surgeon-Major George Nicol Irvine, M.D., retires upon half-pay.

INDIA OFFICE.—The undermentioned officers retire from her Majesty's Indian Forces:—Deputy Surgeon-General Henry Mills Cannon, Bengal Army; Surgeons-Major Francis Pearson, Bengal Army; James Sadlier Ridings, M.D., Madras Army; and William Doyle, M.D., Madras Army.

HONOURABLE ARTILLERY COMPANY OF LONDON.—The commission of Surgeon T. S. Barringer, M.D., has been renewed from February 25, 1879.

MILITIA MEDICAL DEPARTMENT.—Surgeon-Major Frederick Goodchild, M.D. (1st Warwick) resigns his commission.

BIRTHS.

BUSTEED.—On March 22, at 49, Leamington-road-villas, Westbourne-park, the wife of H. E. Busteed, M.D., H.M.'s Indian Army, of a daughter.

DOUGLAS.—On March 18, at Leicester, the wife of Claude Douglas, M.R.C.S., of a son.

LAND.—On March 18, at Cobham, Surrey, the wife of William J. Land, M.R.C.S., of a son.

MORTON.—On March 21, at The Coed, Stroud, the wife of Surgeon-General G. E. Morton (retired), of H.M.'s Indian Army, of a daughter.

PURVIS.—On March 20, at Royal Hill, Greenwich, the wife of John Prior Purvis, M.R.C.S.E., of a daughter.

TRAVERS.—On March 19, at 2, Phillimore-gardens, W., the wife of William Travers, M.R.C.P.E., L.R.C.P. Lond., of a son.

MARRIAGES.

SICCAMA—SMITH.—On March 20, at Bath, R. R. Siccama, M.R.C.S., Fleet Surgeon R.N., to Mary, elder daughter of the late Rev. William Anderton Smith.

SNELL—WOODLEY.—On March 20, at Athnoan, Co. Cork, Simeon Snell, M.R.C.S., of Sheffield, to Annie Christianna, second daughter of the late Francis Woodley, Esq., of Leades House, Co. Cork.

DEATHS.

HALL, CHARLES RADCLYFFE, F.R.C.P. L. and E., M.R.C.S. Eng., at Derwent House, Torquay, on March 21, in his 60th year.

HAWKEN, MARGARITA SEGUNDA, wife of Charles St. Aubyn Hawken, M.R.C.S., at Wandsworth, on March 19, aged 24.

MARTIN, WILLIAM, F.R.C.S., late Bengal Medical Service, at 38, St. Peter's-square, Hammersmith, on March 16, aged 65.

POPE, ERNEST MONTAGU, youngest son of P. M. Pope, M.D., of West Malling, Kent, at Amhurst Island, Ontario, Canada, on March 13, aged 22.

SHARPE, ELLA FLORENCE, second daughter of Alexander Barclay Sharpe, M.D., at Lower Norwood, on March 19, aged 17.

SHEWARD, CHARLES EDWARD, M.R.C.S., late of Malvern Wells, at Cedar Lodge, Cheltenham, on March 24, aged 70.

WARD, THOMAS OGIER, M.D. Oxon., at 24, Hyde-gardens, Eastbourne, on March 25, aged 75.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials as to character and ability, to Hugh Mason, Esq., Ashton-under-Lyne, on or before May 3. Applicants to state age.

CHILDREN'S HOSPITAL, PENDLEBURY, NEAR MANCHESTER.—Junior Resident Medical Officer. Candidates must be doubly qualified and registered. Applications, with testimonials, to the Chairman of the Medical Board, on or before April 8.

GATESHEAD DISPENSARY.—Assistant-Surgeon, with double qualification Apply to Mr. Joseph Jordon, 23, Close, Newcastle.

GLAMORGAN COUNTY ASYLUM, BRIDGEND.—Assistant Medical Officer. Applications to the Medical Superintendent, on or before April 8.

INFIRMARY FOR CONSUMPTION, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Every information may be obtained from the Secretary.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Physician for the Diseases of Women, and an Ophthalmic Surgeon. The Physician must be a Fellow or Member of the Royal College of Physicians of London; and the Surgeon a Member of the Royal College of Surgeons of England. Both gentlemen will be required to give clinical instruction to the students of the London School of Medicine for Women. Applications, with testimonials, to the Secretary, on or before April 30.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Hackney Union.—Mr. R. H. Smith has resigned the Workhouse.

Woodbridge Union.—Mr. W. H. Harding has resigned the Eighth District; area 9413; population 1465; salary £32 10s. per annum. Also the Workhouse; salary £30 10s. per annum.

APPOINTMENTS.

Barton Regis Union.—John R. Lewis, M.B., C.M. Glasg., L.S.A., to the District.

Central London Sick Asylum District.—Edward C. Cripps, L.R.C.P., M.R.C.S., as Assistant Medical Officer at the Highgate Asylum.

Hoxne Union.—Joseph D. Phillips, L.F.P. & S. Glasg., to the Hoxne District.

Kendal Union.—James Daniel, L.K. & Q.C.P. Ire., M.R.C.S. Eng., to the Burton District.

Tiverton Union.—Wm. R. Haydon, M.D., C.M., to the Cadbury and Cadeleigh District.

THE PARIS FACULTY OF MEDICINE.—The Faculty have unanimously presented the name of M. Brouardel to the Minister of Public Instruction for the chair of Legal Medicine, rendered vacant by the death of Prof. Tardieu; and after a sharp contest between MM. Laboulbène and Ollivier, the former was presented for the chair of the History of Medicine, in place of Prof. Parrot, who has been appointed to the chair of Diseases of Children.

OPERATION FOR ENTROPION AND TRICHIASIS.—Mr. Bowen described to the Medical Society of Victoria a simple operation for inversion of the eyelid which he has found very efficacious at the Melbourne Eye Hospital, where the disease is of such frequent occurrence that he has occasion to have recourse to it in three or four cases each out-patient day. It is a modification of Gaillard's operation devised in 1846, which consisted in passing several strong waxed silk threads through a large fold of skin taken up by the entropion forceps at the angle of the eyelids. The operation, although an excellent one, was but little performed, owing to its painfulness and the great inflammation it gave rise to. Mr. Bowen has of late employed horsehair, putting one or at most two stitches into the lid. "I enter a large curved needle, firmly grasped by the needle-holder, at the margin of the lid where the faulty lashes are situate, or where the lid turns in. If there are only one or two hairs, the horsehair should be passed in their course, so that their bulbs may be destroyed by the inflammation produced; and then, stretching the skin somewhat, to obtain a greater result without enclosing so large a fold of loose skin, bring it out between a quarter and half an inch, according to the amount of eversion required from the place of entrance, either on the upper or lower lid, and then tie the ends only moderately firmly together. By doing this I find that the hair does not always cut through, and the amount of irritation is greatly diminished. The whole procedure does not take more than half a minute."—*Australian Med. Jour.*, September.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—On Saturday evening, March 22, the President, Mr. Philip Crampton Smyly, had the honour of entertaining his Grace the Duke of Marlborough, K.G., at a banquet in the Albert Hall of the College, Stephen's-green, Dublin. The members of the Council of the College and some one hundred noblemen and gentlemen received invitations to meet his Grace the Lord Lieutenant.

CHLORAL SPRAY IN WINTER COUGH.—Dr. Fletcher, of Washington, strongly recommends the employment of the spray of chloral in the treatment of the form of chronic bronchitis known as "winter cough," which often offers so obstinate a resistance to remedies. A solution of ten grains of chloral to the ounce of water may be inhaled through a steam atomiser morning and evening.—*Philad. Med. Times*, February 1.

TREATMENT OF FAVUS.—In relation to a case of favus, or tinea favosa, Dr. Bulkley observes (*Philadelphia Medical Times*, January 18) that there is only one way of making a cure, and that is a very tedious one, viz., by epilation. It requires great patience, both on the part of the physician and the patient. In this case the process had been carried on for eight long months, with intervals only of a day or two at a time. By epilation is meant the extraction, with a forceps specially adapted for the purpose, of *every* hair on the affected part. In the case of one young girl, who had had favus for five years, more than 70,000 hairs were removed within a period of several months. "It is a tolerably rare affection; but, whenever you get hold of a case, you will get great credit by its cure in this manner, although the process is necessarily such a tedious one. As soon as a number of hairs have been extracted a solution of the bichloride of mercury (five to ten grains to the ounce) should be applied to the part by the physician, as a parasiticide. This is the only way of curing favus. In the place of the bichloride, other applications may be employed after epilation, as sulphurous acid, diluted citrine ointment, turpeth mineral, etc. I must caution you not to stop the treatment too soon, as the disease is very rebellious."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Mr. E. Berdell.—St. James's Palace is built on the site of a lepers' hospital erected before the Conquest for fourteen maidens afflicted with the disease, and dedicated to the saint whose name it bears.

A Fellow of the College.—The first representative of the Royal College of Surgeons in the General Council of Education and Registration was Mr. J. H. Green, F.R.S., in 1858; on whose death, in 1860, Mr. J. M. Arnott, F.R.S., was elected; succeeded in 1865 by Mr. Cæsar H. Hawkins, F.R.S. In 1870, Mr. R. Quain, F.R.S., was appointed. In 1876, Sir James Paget, Bart., F.R.S., who still so well represents the College, was unanimously elected. We also have heard that the gentleman you mention seeks re-election.

Treating Policemen with Drink.—Whilst strenuous efforts are so widely and generally made to suppress temptations to drink, and to discourage habits of intemperance, surprise may well be expressed to find that a considerable number of persons make a common practice of treating policemen—public servants on whom sobriety certainly has imperative claims—with drink. A flagrant case of such treating with strong drink has recently been considered by the Watch Committee of the Corporation of Leeds. It appears to be a common and rather extensive practice in that town. It was shown in the case in question that "only two horns of Scotch beer" had been given—a quantity, it was urged, which could not possibly have produced any mischievous effect. One Town Councillor proposed that the public should be asked to desist from giving refreshments, whether liquid or solid, to policemen on duty, instead of limiting the prohibition to stimulants. Such temptations are probably thoughtlessly offered to policemen while on duty, but it is mistaken kindness, and should it unfortunately be the primary cause of subsequent delinquency, these good-natured people could hardly feel wholly irresponsible or free from blame for the degraded position of the policeman.

Refusing to Supply an Inspector.—Milk-sellers evidently dread the inspector. A milk-seller of Carlton-mews, Kilburn, was charged with refusing to sell an inspector a pint of milk for analysis. The latter found a child in the shop, who fetched her mother, but she refused to serve him. The magistrate said the case was very clear, as the defendant was responsible for whomsoever he left in charge of his business. This being the first case of the kind which had come before him, he would only impose a fine of 20s. with costs, but in any other case he would inflict the full penalty of £10.

A Competitor.—We understand that no award has been made, probably on account of the essays not possessing sufficient merit. The subject for the Jacksonian Prize for the present year is, "The Disease of the Lymphatic System known as Hodgkin's Disease or Lymphadenoma."

Mr. Campbell.—The Inspectors of Prisons are Dr. Henry Briscoe and Captain T. F. Powell; the salary is £750 per annum. Mr. F. T. Buckland, M.R.C.S. Eng., is Inspector of Salmon Fisheries at a salary of £700. Professor T. H. Huxley, as Naturalist at the Royal School of Mines, receives £600 per annum.

Condemned Food in London.—A return showing the relative percentage of bad meat and fish condemned was recently laid before the City of London Commission of Sewers. In 1877, out of 197,631 tons of meat consigned to the markets, 199 tons, or one-tenth per cent. of the total quantity, were condemned. Of 24,397 tons of fish conveyed by water, 71 tons, or one-fourth per cent., were condemned; and of 82,771 tons of fish sent by land, 318 tons, or three-eighths per cent., were condemned.

The Norfolk and Norwich Hospital.—The Committee are about to erect two western blocks, and the administration and operation departments of the reconstructed Hospital, at a cost of £44,450.

A Testimonial.—The Governor and Committee of the Licensed Victuallers' School have presented Dr. Samuel Wilks, of Grosvenor-street, with a silver salver as a slight memorial of their high appreciation of the valuable services he rendered to the institution, as its honorary consulting physician, during the serious outbreak of scarlet fever in the School at the close of the past year. The salver bore the following inscription:—"Presented to Samuel Wilks, Esq., M.D., F.R.S., by the Governor and Committee of the Licensed Victuallers' School, in recognition of the valuable services rendered by him to the institution for many years.—E. Miller, Governor; Wm. Smalley, Secretary."

The Temperance Movement.—A meeting has been held at the Town Hall, Brighton, with a view to further the progress of the temperance movement by promoting the establishment of coffee public-houses on a systematic scale in the town and neighbourhood. It was proposed to form a limited liability company for this purpose. After some discussion the question was adjourned for further consideration. There are already several of these establishments in the town.

A Physician's Influence with Savages.—Some interesting details are given by Dr. McGillicuddy, the lately appointed Indian agent of the Red Cloud Indians, of his experience with red men. He states that a physician can have more influence with them than anybody else, not even excepting Roman Catholic priests. When they have once been placed under a physician's care, and have received tangible benefit from it, they have a great respect for their doctor. Dr. McGillicuddy succeeded, while with the Red Cloud Indians, in so far gaining their confidence and overcoming their superstition as to be asked to attend their squaws on several occasions when they will not allow their medicine-men to treat them. The salutary effects of proper medical treatment in these cases did much to gain him their friendship. He opened a hospital for the sick. At first, the Indians having a strong prejudice against the institution, he could only obtain three inmates; the number, however, increased to upwards of two hundred per month, in- and out-patients. He is now about to establish another hospital, with Indian nurses, which will be in successful working order soon.

Profitable Utilisation of Back Yards of Houses.—A paper was read by Mr. W. Matthews Williams, F.R.A.S., at the Hall of the Society of Arts, on "Economical Gardens for Londoners," last week, which suggests the utilisation of back yards of houses for purposes not undeserving of attention. The object of the paper was to propose that dreary back yards of houses in thickly populated neighbourhoods should be converted into useful gardens. Putting aside a glass covering as too expensive, Mr. Williams proposes a cheap, strong, gauze-like fabric which could be obtained, and a sort of greenhouse made with it instead of glass. For this purpose he recommends "wall" or "paper-hanger's" canvas, which is retailed at 3½d. per square yard, a fabric which is made of coarse unbleached thread yarn, and very strong, open in structure, and allowing the light and heat to pass freely through it. The construction of such a conservatory he considered so simple that any industrious artisan or clerk could do it all himself, and at a very trifling cost; and under it all kinds of table vegetables and fruit could be grown in abundance.

In Memoriam.—A colossal bronze statue of Dr. Livingstone was unveiled on the 19th inst., on the west side of George-square, Glasgow, in the presence of a large concourse of official and other persons.

A French Example.—The Elementary Education Committee, Paris, has just decided that private, like public, schools should be visited at least twice a month by inspectors to inspect the sanitary arrangements.

An Anti-vaccinationist, and how the Law is administered.—A watchmaker at Farringdon, who had been summoned for neglecting to have his two children vaccinated, in a lengthy speech to the Bench said that if he lived in a neighbouring town he should be fined once—a sixpence, shilling, or half-crown—and hear no more about it, but in his native town he had been summoned twenty-seven times in three years, and had to pay about £37. The defendant refused to pay the costs of the present summons, but his brother paid them for him.

Associate, King's College.—Sir William Fergusson was the senior Baronet, created in 1866; Sir William Lawrence the following year. The former was succeeded by his son Sir J. R. Fergusson, a barrister; the latter by his son Sir J. J. Trevor Lawrence, M.P. for Mid-Surrey, admitted a Member of the College of Surgeons in 1853.

COMMUNICATIONS have been received from—

Dr. J. Matthews Duncan, London; Mr. W. E. Poole, London; Mr. John Chatto, London; Mr. D. Colquhoun, London; Mr. B. R. Wheatley, London; Mr. T. M. Stone, London; Dr. F. Churchill, London; Dr. James Arnott, London; Dr. J. R. Wolfe, Glasgow; Dr. G. E. Herman, London; Messrs. Mears and Co., London; The Secretary of the Royal Institution; The Registrar of Apothecaries' Hall, London; Dr. James Thompson, Leamington; Messrs. J. L. Denman and Co., London; The Honorary Secretary of the Epidemiological Society; Mr. R. J. Godlee, London; Dr. Herbert J. Hardwicke, Sheffield; Mr. Reginald Harrison, Liverpool; The Registrar-General, Edinburgh; Dr. Anderson, Liverpool; Dr. J. W. Moore, Dublin; Messrs. F. Lipscombe and Co., London; Captain De C. Bisson, London; The Honorary Secretary of the Harveian Society; Dr. Gavin Milroy, Richmond; Dr. John Williams, London; Dr. Hensman, London.

BOOKS AND PAMPHLETS RECEIVED—

Samuel Plimsoll, M.P., Condition of Malta—George Murray Humphry, M.D., F.R.S., The Hunterian Oration, 1879—J. A. B. Horton, M.D. Edin., The Diseases of Tropical Climates and their Treatment—Fourteenth Annual Report of the Sanitary Commissioner for Madras, 1877.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Le Practicien—Index Medicus—Gazzetta Medica Italiana—Guy's Hospital Gazette—Canadian Journal of Medical Science—Canada Lancet—Boy's Own Paper—Sunday at Home—Leisure Hour.

APPOINTMENTS FOR THE WEEK.

March 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. Seymour Haden, "On Etching."

31. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. C. Theodore Williams, "Cases of Phthisis treated at High Altitudes." Dr. Gowers, "On some of the Causes of Epilepsy."

April 1. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Dr. Hoggan—The Changes in the Cells of the several Glands in Leprosy and Cancer. Mr. H. Clutton—Arrested Development in the Male Organs of Generation. Mr. Spencer Watson—Melanotic Growth in the Eyeball. Dr. Greenfield—Specimens of Lardaceous Degeneration. Dr. Goodhart—Hypertrophied Heart. Report by the Morbid Growths Committee on Mr. Lister's Case of Cancer of the Scapula. At 9 o'clock the Discussion "On the Anatomical Distribution and Pathological Relations of Lardaceous Disease" will be resumed.

Royal Institution, 3 p.m. Prof. Schäfer, "On Animal Development."

2. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Epidemiological Society, 8½ p.m. Mr. George Turner (Medical Officer of Health to Portsmouth), "On Summer Diarrhœa."

Obstetrical Society, 8 p.m. Specimens will be exhibited by Dr. Godson. Paper: Dr. Routh, "On a Case of Extra-Uterine Pregnancy."

3. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Harveian Society, 8½ p.m. Dr. G. C. P. Murray, "Cases of Uterine Disease." Dr. Stewart, "Simulated Scarlet Fever." Dr. J. W. Langmore, "On Contracted Kidney in Young Subjects."

Royal Institution, 3 p.m. Prof. Tyndall, "On Sound."

4. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Mr. William Crookes, "On Molecular Physics in High Vacua."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 22, 1879.

BIRTHS.

Births of Boys, 1366; Girls, 1318; Total, 2684.
Average of 10 corresponding years 1869-78, 2395·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	1033	1 52	2085
Average of the ten years 1869-78	807·7	795·8	1604·5
Average corrected to increased population ...	...	...	1717
Deaths of people aged 80 and upwards ...	...	...	95

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	5	2	5	5	15	...	..	1	1
North ...	751729	1	3	14	3	15	1	5	...	2
Central ...	334369	...	...	...	1	6	...	...	1	...
East	639111	1	4	4	2	22	2	5	..	6
South	967692	8	12	10	2	43	...	4	1	3
Total	3254260	15	21	33	13	101	3	14	3	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·631 in.
Mean temperature	43·6°
Highest point of thermometer	63·7°
Lowest point of thermometer	35·1°
Mean dew-point temperature	38·7°
General direction of wind	N.E & S.E.
Whole amount of rain in the week	0·04 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 22, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending March 22.	Deaths Registered during the week ending March 22.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2684	2085	63·7	35·1	43·6	6·45	0·02	0·10
Brighton	105608	44·9	59	46	55·6	35·0	43·3	6·28	0·36	0·91
Portsmouth ...	131821	29·4	83	47	...	...	...	...	...	...
Norwich	85222	11·4	58	40	59·2	33·5	41·7	5·39	0·03	0·15
Plymouth	74293	53·3	59	37	61·0	35·0	47·2	8·44	0·01	0·03
Bristol	209947	47·2	175	90	59·8	34·2	43·8	6·28	0·10	0·25
Wolverhampton ...	75100	22·1	61	42	55·6	31·8	42·7	5·95	0·25	0·63
Birmingham ...	388884	46·3	316	190	...	...	...	...	...	...
Leicester	125622	39·3	100	71	61·0	33·0	42·2	5·67	0·08	0·20
Nottingham ...	169398	17·0	117	88	58·0	32·4	41·9	5·50	0·44	1·12
Liverpool	538335	103·3	414	291	52·6	33·4	39·8	4·34	0·41	1·04
Manchester ...	361819	84·3	274	213	...	...	...	...	...	...
Salford	177849	34·4	138	88	...	...	...	...	...	...
Oldham	111318	23·9	84	51	...	...	...	...	...	...
Bradford	191046	26·5	124	98	51·4	32·2	39·1	3·95	0·34	0·86
Leeds	311860	14·5	245	132	50·0	33·0	39·2	4·00	0·71	1·80
Sheffield	297138	15·1	188	182	53·0	32·6	40·3	4·61	0·53	1·35
Hull	146347	40·3	112	86	54·0	33·0	38·5	3·61	0·63	1·60
Sunderland ...	114575	41·4	98	41	47·0	34·0	38·0	3·33	0·27	0·69
Newcastle-on-Tyne	146948	27·4	100	82	...	...	...	...	...	...
Edinburgh	228075	53·9	151	67	44·5	23·7	35·0	1·67	...	...
Glasgow	578158	95·8	439	281	47·2	31·0	37·2	2·89	1·79	4·55
Dublin	314666	31·2	180	204	52·5	30·0	40·2	4·55	0·68	1·73
Total of 23 Towns in United Kingdom	8502896	38·6	6259	4552	64·0	23·7	40·8	4·89	0·42	1·07

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·66 in. The lowest reading was 29·52 in. at the beginning of the week, and the highest 29·94 in. at noon on Monday.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

MEETING OF THE GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

EIGHTH DAY—TUESDAY, MARCH 25.

PROFESSOR TURNER (who had moved the adjournment of the debate on the constitution of the Council) said that on a comparison of the motion of Dr. Andrew Wood with the amendment moved by Sir William Gull the latter was to be preferred, because, whatever change might be desirable in the constitution of the Council, it should not be in the direction of increasing its numbers.

Dr. PITMAN, without wishing to cast blame upon anyone, was astonished and disappointed at the little amount of useful work the Council had done this session, for, with the exception of the important resolution come to yesterday, they had nothing to show for their six days' deliberation; and he feared the Council was now drifting into a course which would take them away from their proper work. When the resolution was passed last year, pledging the Council to inquire into its constitution and working, the whole question was referred to a committee, which, after a number of sittings and a great deal of investigation and pains, presented its report, which came under the consideration of the Council yesterday, and was fully discussed. But now they were about to consider a number of resolutions which did not arise out of that report and were not connected with it. In answer to the question propounded, that committee had reported that they were not of opinion that any alteration in the present constitution of the Council was necessary to render it more efficient for the duties which it has to discharge. When that report was brought up and adopted there was full opportunity to move any amendment upon it, and that was the proper time for such a discussion. The direct representation having been negatived by a decisive majority, it was useless to propose alternatives to conciliate the obstructives, whose motto was "Direct representation or nothing." It would be far more business-like to discuss first the question whether the constitution needed alteration or not before proceeding to debate upon motions as to the method of alteration. He was not disposed to advocate Sir William Gull's amendment in preference to Dr. Andrew Wood's resolution, because he considered that the time for making such suggestions had gone by; and the Council would be placing itself in a false position if they attempted to override the opinion arrived at by their committee, by passing resolutions which, after all, could only be carried by small majorities, and which therefore would have no weight out of doors, and would be worse than useless. Again, it must be remembered that the Council was constituted under Act of Parliament; and it was Parliament that must make any alterations in its constitution. No arguments had been brought forward showing that the Council was incompetent for the work it had to do; and after the report of the committee, who had thoroughly investigated the matter, he thought the only becoming way of dealing with the question as it at present stood was to raise the issue at once, whether any change in the constitution of the Council was necessary.

Dr. QUAIN said nothing could possibly be more objectionable than the amendment proposed by Sir William Gull; because it introduced the new element of self-election, which would be looked upon with great suspicion by Parliament, and was hateful to the people of this country. He agreed with Dr. Pitman that it would be better to discuss first the question which lay at the root of all these matters—namely, whether there was to be any change in the constitution of the Council at all—before entering upon a debate upon these other matters. The committee had reported that they did not think an increase in the numbers of the Council would render it more fit for the discharge of its present duties, or any duties that it may have to discharge. It seemed to him inconsistent that when a committee of this sort brought its work before the Council they should not take the least notice of it; and the climax of inconsistency was reached when one of the members of the committee, who had signed this report, brought forward a motion that a certain number of members should be added to the Council—the very thing which the committee were unanimous in rejecting! He (Dr. Quain) fully agreed with the opinion expressed by the committee upon that subject; in fact, a great many people thought the Council too large for business purposes, and even those who desired direct representation wished to reduce the numbers of the Council. He was the last man in the world to say a word against the general practitioners of the country; he knew men among them who would be an honour to any assembly; but he saw as good men round the council-table now; and he could see no good object to be gained by displacing them. Moreover, he protested against the motion that the profession was not represented on the Council; and he claimed to represent the medical profession as much and as directly as anybody who could be selected.

Mr. MACNAMARA said it was important, before the resolution and the amendment were put, that the opinion of the Council should be taken upon the question whether it would be desirable to increase the number of its members. With regard to the amendment of Sir William Gull, he would like to ask the hon. baronet whether it was his intention to take the power of selection from the Crown, and to vest the selection of Crown nominees in the Council.

Sir WILLIAM GULL: The object I had in my resolution was to meet the desire for direct representation by increasing the number of the Crown nominees, and it seemed to me the proper way to meet that would be to put the matter into the hands of this Council, whose duty it would then be to select proper persons out of our profession to sit here as representing any particular department of knowledge or practice.

Mr. MACNAMARA doubted whether the Crown would be very thankful to the Council for taking away its prescriptive right. He had no desire to compliment the Crown nominees, but he defied the Council at the present moment to make a better selection than the present Crown nominees. He must here express his opinion that the Medical Council, as at present constituted, distinctly represented all that it ought to represent. It numbered among its members four gentlemen selected from the body of general practitioners, and who fairly represented them; there were others selected from the teachers and specialists of the profession; and finally, there was a very distinguished selection of consultants—gentlemen who were constantly coming into contact with the general practitioners of the country, and who knew their requirements and their aspirations. He would much prefer a resolution meeting this question in a direct and straightforward way, stating that in the opinion of the Council its constitution was all that the public requirements demanded. No means had been suggested at present whereby it could be improved,—certainly not by universal suffrage; and it would be a very invidious duty for the Council to take upon itself to canvass the names of the gentlemen who were to be presented to the Crown as suggested by Sir William Gull.

Mr. TEALE was unable to vote for Sir William Gull's amendment. He trusted that when the present agitation was set at rest the Council would be able to conduct its business with a great deal less speech-making, and he did not see why it should not split up into committees which might be sitting the greater part of the year and simply present their reports in Council for adoption. A great deal of time would thus be saved, as a perfect acquaintance would be made with the subjects under discussion by those members who formed the committees, and they would be listened to and their suggestions adopted.

Sir DOMINIC CORRIGAN said if they wanted anything to convince them that an inquiry into the whole subject of medical reform was necessary, they had now heard sufficient, for so divided and perplexed were the Council in their views upon this subject that they changed their minds from day to day, and a distinguished member had confessed that he had changed his mind twenty times on one question. Professor Turner had confessed himself unable to say that either the amendment or the resolution was good, but he thought one was preferable to the other. There were many matters in which a reform of the constitution of the Council was necessary. It had been well said that the Medical Council was the only court of judicature in the United Kingdom or in the British possessions from which there was no right of appeal. The Council had the power of judging a man and taking away his character for ever, and, however ill-judged and erroneous their view might be, the unfortunate man had no appeal. Drs. Pitman and Quain had taken up the extraordinary position that the Executive

Council having laid down certain opinions, the Council was not at liberty to differ from their report.

Dr. QUAIN: That is not our view at all; we say that you should give it some consideration.

Sir DOMINIC CORRIGAN: Well, I am glad you have retracted. (Loud laughter.) The hon. baronet, in conclusion, said that he should vote against both the amendment and the resolution; and he protested against the principle involved in Dr. Andrew Wood's resolution, that the representation should be based upon the population of the three kingdoms in the proportion of two to England, one to Ireland, and one to Scotland. He objected to that method of dealing with the question, and mentioned the case of the University of Heidelberg, where there was an average of 106 medical students per year, with a population of 23,000, as compared with Oxford, whose population was 36,000, without a single medical student. Yet, if the principle of representation by population were carried out, Oxford would have an equal voice on the Medical Council with Heidelberg, supposing Heidelberg to be in the United Kingdom; or with London, which drew candidates from all parts of the world. Comparing Ireland and Scotland with England upon the true basis of comparison, taking into account their respective claims as educational bodies in medicine and surgery, he contended that the numbers of the population had no relation whatever to the question. He condemned the amendment of Sir William Gull as containing in it the vice of self-election. What would be said if such a principle were applied to the Church or the Bar, or the Army and Navy?

Sir WILLIAM GULL reminded Sir Dominic Corrigan that this system of nomination and approval by the Crown was carried out with regard to the Senate of the University of London. It was a matter in which the Government ought to be assisted by the Council, and it was no answer to say that up to the present time the Government had by indirect means obtained the necessary information to enable it to make proper appointments. At the same time, as he found that the opinion of the Council generally was against his amendment, he desired to withdraw it, as he thought it would be injurious in the eyes of Parliament to press it to a division when at best it could only be carried by a small majority.

Rev. Dr. HAUGHTON challenged the right of Sir William Gull to withdraw an amendment after he had felt the pulse of the Council and found that it was likely to be rejected; and coincided with Sir Dominic Corrigan in condemning the fallacy of basing the representation on population.

The PRESIDENT thought that Dr. Pitman's speech was unanswerable, and that it would be injudicious for the Council to proceed with the various motions and amendments of which notice had been given, because it would involve the question of a distribution of seats, which would open up a very wide question, especially having regard to the Bill which was already on the table of the House of Commons, and which dealt with the same subject. The Executive Committee had carefully avoided entering upon this question of the re-distribution of seats, and had bestowed a great amount of labour on the subject generally. Being very much divided upon many matters in connexion with it, they had been unanimous in coming to the conclusion that, as this was an inquiry which the Government had pledged themselves to enter upon, nothing which the Executive Committee could do, or, as far as they could see, nothing which the Council could do, in the present aspect of things could settle the question. They therefore simply collected facts, which they were prepared to submit to the Select Committee of the House of Commons. Under all the circumstances he felt it his duty to abstain from voting either for the resolution or the amendment.

Sir William Gull, the mover, and Dr. Smith, the seconder of the amendment, obtained the leave of the Council to withdraw it, and Sir William protested against the motive imputed to him by Dr. Haughton for so doing, namely, that of feeling the pulse of the Council and afterwards withdrawing it when he found it would not be well received, which he characterised (amidst loud applause) as being a very offensive imputation.

Mr. MACNAMARA then moved—"That this Council, as at present constituted, fairly represents the profession at large." He said that it would be a waste of time to travel over the ground which he had traversed only an hour ago; and as he believed this resolution expressed the general sense of the Council upon the subject, he would without further remarks propose it for their adoption.

Dr. QUAIN seconded the amendment.

Dr. ANDREW WOOD said such a resolution was hardly respectful to the profession outside. He would never be one to cater to please external clamour, still there were opinions outside which deserved to be recognised, and there were statements of grievances which ought not to be disregarded. He therefore still held to the opinion that the Council was bound to give some deliverance on this subject. In reply to the suggestion of Dr. Pitman that the time had gone by because the matter had been referred to a Select Committee, he (Dr. Andrew Wood) said that that was the most opportune moment for the Council to offer any suggestions that they might have for the consideration of that Committee. The report of their Executive Committee would in some way or other come before the Committee of the House of Commons, and would no doubt shorten their labours and afford them a good deal of information. He did not think the Council was in a condition to say that there was no necessity for any alteration in its constitution. Many suggestions had been made, and the Council had done very well to dispose of one of those suggestions which pressed for a direct representation of the profession by universal suffrage. At the same time he had no hesitation in saying that if any method could be suggested for introducing into the Council a certain representation of registered practitioners residing in the provinces, although it would not satisfy the extreme agitators, he believed it would be doing an act of justice to the profession at large, and would be carrying out what was originally contemplated by the Medical Act, while at the same time it would be introducing into the Council a set of men who would assist very materially its deliberations. With this end in view, he for one would not be afraid of increasing the numbers of the Council by four, which would not be a very heavy burden, and would be amply compensated for by the advantages that would be gained. Dr. Teale's idea seemed to be of the most Utopian description, because, apart from all other considerations, there were serious practical difficulties in the way of committees meeting all the year round as suggested. Moreover, the idea was altogether antagonistic to the original constitution and design of the Council. It was no argument to say that because it was impossible now to settle the question, therefore it was waste of time to discuss it; and he was surprised at the illogical conclusion to which Dr. Pitman had appeared to have arrived, that because this matter had been referred to a Committee therefore the Council ought not to discuss their report. He concluded by opposing the amendment.

Sir DOMINIC CORRIGAN could not conceive anything more calculated to make the Council look ridiculous than the amendment proposed by Professor Macnamara. The question before the Council was whether its constitution needed revision, or whether it was perfect or imperfect; and he understood the amendment to mean that it was perfect. Test that by any other instance. Suppose that at the time of the reform agitation the House of Commons, in reply to very considerable pressure outside, had passed a resolution that the representation of the people in the House of Commons, as it then stood, was perfect and needed no reform, what would have been the answer to that? A yell of ridicule throughout the whole country. He sat down with the conviction that although that amendment had been moved and seconded, there would not be found a third person who would vote for it.

Professor ROLLESTON, upon this subject, would simply remind his friends, the movers and seconders of the amendment, of a certain old saying—"Let another man praise thee, and not thine own mouth." (Laughter and applause.)

Dr. HALDANE could not support the amendment, because he felt that the Council did not fairly represent the profession.

After a few observations in reply, and a request by Dr. Quain to be allowed to withdraw from the amendment, it was put to the meeting; and only one hand being held up in favour, was declared to be lost.

Mr. SIMON: I rise to move—"That the consideration of the report of the Executive Committee on the constitution of the Council be now closed." I could not, if I would, make a long speech upon this subject, and as this is an amendment to Dr. Andrew Wood's motion, I will refer to that resolution which founds itself on an unfortunate par

graph in the report of the Executive Committee. That paragraph is in curious contrast with the main body of the report, which deals with the constitution of the Council and expresses reluctance to see it changed, and gives reason against all sorts of change; but then, with a curious *non sequitur*, goes on to say that if the constitution is to be altered, it should be altered in a particular way. The paragraph can best be described by an illustration drawn from one of Dickens' novels; it is "Tootsian," and it represents a total misunderstanding of what is at the heart of those who are protesting against the present constitution of the Council. What they want is an elective voice and influence in it; and to suppose that any conciliation in their feelings would be gained by enabling the Crown to nominate four additional members, is a vain hope. If the Executive Committee wanted to make a suggestion they might have made a happier one than that; and I wish it had occurred to them to make some suggestions for the reconciliation of the very real schism which there is in our profession. And here I would refer for a moment to the subject of direct representation. I voted against Sir Dominic Corrigan's motion upon that subject, but I did not vote for Professor Humphry's motion, which had an appearance of being contrary to it. The arguments which were used for it seemed to me to be entirely unsatisfactory. The alleged analogies seemed to me to be no analogies; the talk about taxation and representation seemed to me to be quite beside the mark. If it means anything it means that the profession ought to be directly represented in Parliament, because it is Parliament that taxes them, not the Council. It is no argument for the profession being specially represented here, any more than it would be an argument that people who pass through a turnpike ought to elect the turnpike trustees; and as regards the justice of the thing, the position I would take is this—that we ought, above everything, to consider justice to our duties, and therefore, in relation to this matter of representation, we ought to consider what is the best method, with a view to the duties which this Council has to discharge. But in proportion as I do not agree to the proposal for the direct representation, just in that proportion do I cordially sympathise with the feeling which is at the root of the demand for it; and I trust that this debate will not close without some words of conciliation instead of defiance towards those who are, as I think mistakenly, but with honest convictions, calling for that particular method of election. We are now about to close, I hope, our consideration of this committee's report, and we are told that if we close it in a particular way there will be a stoppage of legislation. I do not think that need greatly influence us. We were told yesterday that there were six high-spirited Irishmen who would not be knocked down by a threat, and I believe it was said that there was the same number of Scotchmen; and I know there is a considerable number of Englishmen around this table who will certainly come to their final decision on this class of questions upon other considerations than the threat that in a mechanical way legislation will be obstructed. I do not doubt the power of obstruction; it is one of the features of our present political condition—and a very unfortunate one—that passive obstruction is powerful. A dead donkey can upset a mail-coach—(laughter);—but, Sir, it is a very deplorable schism that we are witnessing in our profession, and I hope this debate will not close without the members of the Council taking to heart that they ought if possible to heal that schism. Obstruction in Parliament refers very generally to matters of pecuniary interest, but here there is a real difference of feeling between this Council and a very large mass of our profession. Now I think it is the business of the Council to try if it cannot appeal over the heads of some of the wire-pullers and professional agitators to the good sense and loyalty of our profession; and for that purpose I think that it is our duty to define what we mean in our resistance to direct representation. That was, I think, very fairly expressed in the debate which took place yesterday. What is done is not merely by formal vote, it is just as well done in discussion, and has already been done in words which were dropped again and again in debate yesterday; but I think a more definite expression ought to be given of our view of the feeling which is at the bottom of this agitation. As I have said, I do not expect to make any impression on the fanatics, or wire-pullers, or agitators, for I would just as soon have thought of appealing a year or two ago to the anti-vivisectionists; but when we talk to members of the profession who are not fanatics upon the subject (one might count almost on one's hands the fanatics and wire-pullers to whom I have referred), when we talk to the sober, sensible men of our profession all over the country upon the subject, what do we find? We find, what I thoroughly agree with, that they fret against not having a share in the governing institutions of their profession—("Hear, hear," from Dr. Andrew Wood),—and I should think most of us would agree with them. But what I think ought to be understood by them (I shall badly express it, and I hope our Chrysostom opposite may better express it presently) is, that if we can meet them on that ground we are most anxious to do so, and that if we object to what has unfortunately become an apple of discord, if we cannot join with them in this question of direct representation, we thoroughly agree with them in thinking that in the institutions of their profession they ought to be represented. And here, to refer to the Bill of the Lord President, it is proposed as an absolute condition that entrance into the medical profession to a man, although he has passed the examination of the Conjoint Board, should be "attached"—that is the phrase—to a medical authority. Now, my contention would be that every man who is attached to a medical authority ought either *ipso facto* to acquire a vote in the election of the governing or managing body of the institution, or should at least know that he can acquire that franchise on condition of a higher graduation. I believe if that principle were carried into effect, the demand for what is called direct representation would cease. At all events, I believe that if we were in a position, in talking to the men of sense in the medical profession, to point out to them, as Professor Humphry pointed out, that while we could not have direct representation without seriously damaging the constitution of the Council, and that universal suffrage would be the worst contrivance of all upon which this Council could be elected, but that, seeing that the governing bodies of the medical institutions of the country send their representatives here, and that every member of the profession will in future be bound by law to join those institutions, they will recognise that certainly, as between them and the Legislature, they may fairly appeal to the Legislature to provide that those institutions shall be fairly constituted, and that the men who are forced to join them shall either *ipso facto* have a voice in the election of the governing bodies, or at least know that they can, on condition of future graduation, acquire one. I have no positive proposal to make, but I was very strongly of opinion last July that Sir William Gull's motion was inexpedient; and I then submitted that, in my humble judgment, the Council was not the best body for discussing its own constitution. I was then overruled by the majority, but I am still of the same opinion; and I sit down by moving—"That the consideration of the report of the Executive Committee upon the constitution of the Council be now closed." If there can be words of conciliation added which shall apply to those who are in favour of direct representation, showing that our feelings are not antagonistic to the feeling outside upon this subject, I should be very glad; because I think it might lead to a settlement of this question which would have the effect of healing the schism to which I have referred. I think such settlement might be contrived by half a dozen sensible men meeting round a committee-table. (Applause.)

Sir Dominic Corrigan trusted that the Council would not cover itself with ridicule by adopting Mr. Simon's amendment, which would completely shut out all discussion in the middle of this important debate, and put out of court all the amendments of which notice of motion had been given.

Sir James Paget said that, as soon as it was announced that the Government intended to refer this question of the constitution of the Council to a Select Committee, it had appeared to him that the wisest course would be for the Executive Committee to recommend that this matter should be allowed to stand over to be dealt with by the Committee of the House of Commons, where any member of the Council who pleased might state his own views. The Council had no power to carry any recommendation upon this subject into effect; and, as far as could be seen, it was not likely that upon any single point there would be so large a majority as to carry weight. At the same time, he did not at all regret that this discussion had taken place, because the question of direct representation, which constituted nine-tenths of the

matter at issue, had been thoroughly debated, and the Council had arrived at a decisive vote upon it. With regard to the remaining matters upon which notices of motion had been given, it was open to Dr. Pyle to propose his suggestion as an amendment upon this motion.

Professor TURNER agreed with what had fallen from Sir James Paget, that, the Council having voted decisively upon the question of direct representation, it was time to close this discussion. He also very much questioned whether the Council was the proper body to enter into other points as regards its constitution.

Rev. Dr. HAUGHTON said the very strong expression of opinion in the Council against direct representation would practically destroy the Lord President's Bill in the House of Commons, unless the Government, behind the back of the Council, granted that privilege. He would urge upon them that they should consider what was and what was not practicable.

Mr. TEALE had given notice of a motion on the subject, but it so entirely agreed with what had been said by Mr. Simon, Sir James Paget, and Professor Turner, that he would withdaw it.

The PRESIDENT then put Mr. Simon's amendment to the Council, and it was carried and proposed as a substantive motion.

Dr. PYLE moved as an amendment—"That, as a mode of granting a larger representation of the profession in the General Medical Council, every graduate of a university, or member or licentiate of any corporation, shall have the privilege of voting for the representative of the university or corporation of which he is a graduate, member, or licentiate." It might be in the recollection of the Council that he brought this resolution before the Council in the summer session last year, but was induced to withdraw it on the amendment of Sir William Gull, in order to facilitate legislation. He ventured to express the hope that the question of the constitution of the Council would not impede legislation this session of Parliament, as he considered the Medical Council was of sufficient importance to have a separate Act of Parliament. He would not take up the time of the Council longer than to say that these elections should be conducted in the same way as those for members of Parliament and in the universities. The subject had been brought before Government previously by Dr. Prosser James; and at the Leeds meeting of the British Medical Association, in 1869, a similar resolution was carried by Professor Haughton; and it was not therefore altogether unknown in the profession. But a great deal had happened since that time; and this Bill now before Parliament proposed a conjoint scheme, which he thought should be carried out as to the mode of election in the same way as municipal elections were conducted. It had been stated that if this Bill passed men would not care to go to the corporations; and Lord Ripon had said in the House of Lords, a few nights ago, that there was no reason why they should; but if this resolution were carried there would be a real bond of union established between the corporations and gentlemen who should affiliate themselves to those bodies.

Dr. HUDSON seconded the resolution.

Rev. Dr. HAUGHTON begged to offer himself as another member to those who had had the courage to come forward in the Council and acknowledge that they had changed their opinions on this subject. He had at first advocated indirect as against direct representation, but he saw that as soon as the matter came to be discussed in the House it would be absolutely impracticable to carry such a measure, and as a practical man he had at once abandoned the idea. The great argument used against the Bill was that it proposed to establish a democratic form of election for every member of the Council except the six Crown nominees. He had no objection to a proportion of the Council being so elected, but he certainly did object to the whole body being elected by the rank and file of the profession, leaving the higher education and culture to be represented only by the Crown nominees. If that system were adopted the Council would very soon be swamped by the members elected by the democratic vote, and he earnestly warned the Council against the consequences of the dismissal from amongst them of the representatives of the higher education. They had nineteen corporations to deal with, every one of which had discovered by long experience (some by the experience of hundreds of years) how best to govern itself, and the Council should not rashly sanction a mode of election which would be directly contrary to the systems which these bodies had so adopted. On the whole the corporations had done their work quite as well as had the Crown in the exercise of its privileges, having found by experience the particular mode of election which best suited themselves, and, however those elections were conducted, they represented principles which the corporations would not give up. His objection was based on two grounds:—first, to the election of at least three-fourths of the Council by democratic vote, and secondly, because the measure had no chance of passing through Parliament.

Dr. QUAIN thought the Council was placed somewhat in a difficulty in the matter, but that they ought to find some way of expressing a decided opinion it, and Dr. Pyle's resolution certainly pointed out one way in which wider constituencies would be given to the members elected to the Council.

Dr. PYLE, in answer to Dr. Aquilla Smith, said he would propose to give votes to all graduates, and not merely to medical men.

Dr. AQUILLA SMITH said, if that were the case, he felt bound to oppose the motion, seeing that it proposed to make the constituencies so large. It was clear that the licensing bodies were satisfied with their modes of election, and Sir Dominic Corrigan and Dr. Leet were examples of it, having been sent to the Council for twenty-one years by those systems.

Dr. SCOTT ORR pointed out that if other than medical men should be returned to the Council, which Mr. Simon thought possible upon this resolution, they could not possibly represent the profession.

Dr. PITMAN inquired whether Mr. Simon, in stating that a schism existed in this matter, meant to convey that the schism was between the Medical Council and the profession generally?

Mr. SIMON: Yes.

Dr. PITMAN was not aware of it, and thought it must exist in Dr. Simon's imagination. The Act of Parliament gave power to the governing bodies to send representatives to the Council, and nothing the Council could do or recommend would have any influence in changing the mode of returning the representatives of those corporations. It had been decided by the College of Physicians of London that an enlargement of the constituency beyond the present number of 300 Fellows would not tend to facilitate the transaction of business; and he certainly thought with Mr. Simon that they had better now close the debate.

Sir DOMINIC CORRIGAN would support Dr. Pyle's motion if it were made to apply to medical graduates only, as he decidedly objected to give voting powers to every graduate in art, science, or law, for the return of representatives to the Council.

Dr. HUMPHRY protested against Mr. Simon's expression that a conciliatory course was required from the Council towards the profession, and that the Council should give some credit to the profession for honesty of conviction and a feeling of right, as such a statement would cast a most undeserved slur on the Council itself.

Mr. SIMON repudiated any intention of impugning the Council's honesty of conviction, even by implication.

Dr. HUMPHRY proceeded to point out that the question was whether they were to alter the principle laid down in the report, of leaving the several bodies to conduct their elections as they thought best. The institution which would be most affected by the proposed change would be the College of Physicians of London, whose Council, knowing all their members, were in a position to form a far better opinion than any outside persons possibly could as to who would be their fittest representative on the Medical Council, and who were far more likely to make a good choice than the whole of the members of the University if the election were thrown open to them. The Council of that College was elected by the Fellows, and any member of the profession could, if he chose, become a Fellow, so that there the representative system was carried out in the very best manner. With regard to the question of confining the election to the medical graduates alone, that would be really to disfranchise the great majority of the members of the corporations. For example, Dr. Rolleston and himself represented the whole senates of their respective universities, and were accordingly representatives of the whole outside opinions.

Mr. MACNAMARA drew attention to the fact that the system adopted by the College of Surgeons in Ireland was

the same as that followed by the English College of Surgeons, and that it was the best because it led the licentiates on to obtain Fellowships; and the Council should take care to diminish as little as possible the inducements to graduates to seek the higher grades.

Dr. ROLLESTON said that, whatever should be done in the matter, every member of the profession ought to feel proud of the Council, seeing how many of its members had had the courage to speak on the side which they knew to be so exceedingly unpopular. He entirely agreed with Mr. Simon, and must oppose Mr. Pyle's motion, as he did not believe it would answer the purpose. It was clear that the universities, by sending doctors as their representatives on the Council, which they were not at all obliged to do, had the greatest respect for the medical profession.

The PRESIDENT then put Dr. Pyle's amendment, and it being lost, Mr. Simon's motion to close the debate on the question was carried *nem. con.*

Professor TURNER then moved—"That, in consequence of the great increase of business devolving on the Executive Committee in connexion with the carrying out of the provisions of the Dentists Act (1878), in accordance with the Council's resolution thereon (Minutes, vol. XV., page 161, Clause 6), and the much greater length of time occupied in the sittings, the payments for attendance at these meetings should be increased." He said the payment for attendance at meetings of the Executive Committee was fixed by the standing orders at two guineas to each member *plus* travelling expenses, and the same for attendance at branch Councils. That fee he considered was quite sufficient for attendance at the latter, which did not make great demands upon the time of the members; but the business which came before the Executive Committee was of a far more serious character in that respect, being in reality the Council out of session, and having entrusted to it at such times the transaction of all business which would have to be performed by the Council if it were in perpetual session, and sitting from twelve to six o'clock, and sometimes as late as eight o'clock—a fact sufficient in itself to show how hard the Executive Committee had to work. He would therefore suggest that its members should be paid at the same rate as the members of the Council itself, whatever that rate might be, and it would be for the Council to decide how that payment should be borne between the funds of the Council and the Dentists fund. Then, further, it was not right that the President of the Executive Committee, who was not residing in London, where he was frequently called for the business of the Committee, should be out of pocket by it, and he should also be paid at the same rate as for attendance at the meetings of the Council.

The motion was seconded by Mr. TEALE.

The PRESIDENT hoped that while he held the office of President of the Executive Committee the latter part of the motion (which Professor Turner had formally added to it) would be withdrawn, and proposed again for the benefit of his successor.

Mr. SIMON, while making no decided opposition to the motion, pointed out that the Council was already exceeding its income, there having been a deficit last year.

Dr. ANDREW WOOD suggested, as there was a difference of opinion, that the matter should be adjourned.

Professor TURNER said as he was compelled to leave London that evening he hoped to hear that the Council had resolved to affirm the motion.

Sir WILLIAM GULL urged that it would be better at once to adjourn the Council *sine die* for their next meeting, as there was really not sufficient business to meet upon on the following day.

Dr. ANDREW WOOD objected, there being a quantity of dental and medical business to be still disposed of, and moved that the Council meet the following day at one o'clock to insure that the whole of the business should be finished.

The motion was carried, and the Council adjourned.

NINTH DAY—WEDNESDAY, MARCH 26.

The adjourned debate upon Professor Turner's motion, voting an increased payment for attendance, to the Executive Committee of the Council, was continued by Mr. Simon, Mr. Macnamara, Dr. Rolleston, Dr. Pettigrew, the Rev. Dr. Haughton, and Sir Dominic Corrigan; and eventually it was agreed to, *nem. con.*, in the following modified form:—"That in consequence of the great increase of business devolving on the Executive Committee, and the much greater length of time occupied in the sittings, the payments for attendance at these meetings should be increased, and that the payments for attendance at these meetings be the same as for attendance at meetings of the General Council."

Dr. PITMAN, in moving the next resolution, said that in order to convey to the Lord President what really had been done in the Council in connexion with the consideration of the question of direct representation, he proposed to add to the report a copy of the resolutions and amendment moved upon the subject, and further so to word the resolution that it should include the appendix as well as the report. The resolution would then read as follows:—"That, in fulfilment of the pledge given by the Council on July 3 last, a copy of the Council's resolution on direct representation, together with a copy of the resolutions and amendments moved on the subject of the constitution of the Council, be forwarded to the Lord President of the Privy Council, and also a copy of the Executive Committee's Report on the Constitution and Working of the Council, with the appendix containing documents in regard to the Council."

Mr. MACNAMARA said that the resolutions passed on the subject of the equalisation of fees ought to be included.

Dr. AQUILLA SMITH reminded the Council that it would be quite within the province of the President or any member to send a full copy of the Minutes containing all these matters either to the Lord President or to the Select Committee of the House of Commons.

The resolution, having been seconded by Dr. PYLE, was unanimously adopted.

Dr. QUAIN then moved—"That the following answer be sent to the Board of Trade in reference to the Weights and Measures Act (1878):—

"In reply to your communication of February 10 (see Executive Committee's Minutes for March 5, 1879, Clause 8), submitting for the consideration of the Medical Council certain memoranda which had been handed to the Board of Trade by the Pharmaceutical Society respecting the Weights and Measures Act, 1878, we beg to submit the following remarks:—

"It appears to be certainly desirable that all weights and measures which are legalised by Act of Parliament should be distinctly described by the authorities to whose hands is entrusted the duty of carrying the law into effect, and that standards should be established in order to insure accuracy and uniformity in such weights and measures. Those used by chemists in compounding and dealing in drugs should be no exception to this rule.

"The 20th section of the Weights and Measures Act, 1878, authorises the continued use of apothecaries' weights, and we are of opinion that the denominations of those weights should be officially set forth, and standards of them prepared and preserved by the Government.

"We concur in the opinion that it is undesirable to include the pound among apothecaries' weights. If the ounce be retained it should be distinctively termed the 'apothecaries' ounce,' and the drachm should also be termed the 'apothecaries' drachm.' These weights, as well as the 'scruple,' should be distinctly marked with their names, or with such abbreviations thereof as may be deemed sufficient, as well as with the symbols which have from time immemorial been used to represent those weights, the ounce being ℥, the drachm ʒ, the scruple ℈.

"We think some of the lesser weights are too small to have a Government stamp of verification in addition to the mark which is necessary to denote their value.

"The tables given in the memoranda correctly state the apothecaries' weights, but we think it should be mentioned that the grain of that weight and the grain avoirdupois are equal.

"We are of opinion that it would be unnecessary to have the minor subdivisions of glass measures officially verified."

The Council would be aware that under the Act of 1858 they had the right to regulate the weights and measures by which drugs were compounded and sold. When the Pharmacopœia was brought out, recommendation was made that avoirdupois weight should be substituted for apothecaries' weight; but in actual operation it was found by those who had to dispense and sell medicines that this would be very inconvenient; and when the recent Act for weights and measures was before Parliament, the Board of Trade made a representation to the Council, asking whether there would be any objection to do away with apothecaries' weight and substitute avoirdupois. The result of a conference with the Board of Trade was that apothecaries' weight was retained and included in the present Act by the 20th Clause, which provides that "Drugs, when sold by retail, may be sold by apothecaries' weight." But then, as between the grain and the ounce there was no multiple, so that it was necessary to enumerate the grains; the half-scruple or the scruple and the drachm were ignored. A correspondence then took place, and the Board of Trade, in a very proper way, submitted to the Council the recommendation of the Pharmaceutical Society, which comes to this—"That the scruple and the drachm should be preserved as weights, being multiples of the grain; and, further, that they be properly identified with

a stamp"; so that really the object of this communication was to get the assent of the Council to two propositions—first of all, that apothecaries' weight should be preserved; and, further, that there should be a standard fixed by the Board of Trade of the ounce, drachm, scruple, and grain.

The motion was then put to the vote and unanimously adopted.

Mr. TEALE then submitted the following memorial:—

To the General Council of Medical Education.

The memorial of the undersigned ophthalmic surgeons humbly sheweth—

That the study of ophthalmic surgery and medicine is at present greatly neglected in the ordinary course of medical education, candidates frequently obtaining their diploma with little or no knowledge of the diseases of the eye. The consequences of this, both to the public and to the practitioners themselves, are very serious, as your petitioners have ample opportunity of observing.

That in Continental examinations, as well as in those conducted in the Indian University, a sound knowledge of ophthalmology is required.

That your petitioners believe the advances made in ophthalmic surgery within the last twenty-five years render it advisable that it should be taught as a separate subject.

That the arrangements for its study exist already in most of the hospitals of Great Britain and Ireland, but are not taken advantage of by students because little or no evidence of acquaintance with the subject is required by the licensing bodies.

Your petitioners desire to draw the attention of the Medical Council to the advisability of making it compulsory upon all medical students to attend a three months' course of practical ophthalmology either at the special eye department of a general hospital, or at a special ophthalmic hospital, as well as a course of twenty lectures on ophthalmology at the least.

They also desire to press upon the Medical Council the importance of making ophthalmology form a distinct subject of examination at the pass examination for surgical diploma or at the examination of a conjoint board.

W. WHITE COOPER.	JOHN TWEEDY.
W. BOWMAN.	G. ANDERSON CRITCHETT.
GEORGE CRITCHETT.	EDWARD NETTLESHIP.
JONATHAN HUTCHINSON.	M. MCDONALD MCHARDY.
JOHN C. WORDSWORTH.	J. F. STREATFEILD.
R. BRUDENELL CARTER.	CHARLES HIGGENS.
GEORGE COWELL.	JOHN COUPER.
J. SOELBERG WELLS.	GEO. LAWSON.
J. SEBASTIAN WILKINSON.	WILLIAM JAY.
BOWATER J. VERNON.	CHARLES BADER.
HENRY POWER.	C. MACNAMARA.

He said these signatures comprised nearly every one of the ophthalmic surgeons of the metropolis. He sympathised very sincerely with it; and while he felt that the Council could not fairly add this study to the existing curriculum without reconsidering and revising the whole so as to make room for it, he was sure the Council would agree with him that it was time something was done in the direction pointed out by the memorial.

Dr. ANDREW WOOD moved—"That the memorial be sent down to the licensing bodies for their consideration and report." The Council would then know what these had to say about it, and would be in a better position to legislate upon the subject.

Rev. Dr. HAUGHTON had much pleasure in seconding the motion. He had telegraphed that morning to Dublin for information, and he found that in the year 1870 the University of Dublin made a regulation requiring all candidates for the degree of Bachelor in Surgery to attend a three months' course upon practical ophthalmology in the eye department of a hospital, as well as a course of twenty lectures. At the same time a distinct examiner was appointed in this subject for the degree. There could be no doubt, therefore, what the answer of the University would be. At the same time he doubted whether the Council should go so far as to say that every candidate for the future qualification should be required to possess this knowledge, because the University degree in surgery was considered as a higher qualification.

Professor ROLLESTON proposed as a rider—"That this subject be also referred to the Executive Committee, with a request that they will at their next meeting furnish the Council with a short report as to the expediency of this course."

Dr. QUAIN said the proper persons to bring forward a matter like this were the licensing bodies. It was time enough for the Council to deal with such matters when it was drawing up the rules for examinations.

Dr. ANDREW WOOD said it was due to the licensing bodies, when a matter of this kind was brought forward, to hear what they had to say about it first. His own impression was that most of them would be highly impressed with the expediency of taking some step in the direction pointed out by the memorial.

The resolution as amended was put to the meeting and unanimously adopted.

The next business of the Council being of a private nature, strangers were requested to withdraw.

Dr. ANDREW WOOD then brought forward the following letter, which was a communication from the Branch Council for Scotland, referred to the General Medical Council without comment:—

Glasgow Royal Infirmary, February 19, 1879.

Dear Sir,—I beg to request that you will be good enough to lay before the Medical Council the following, viz.:—

According to the rules of the College of Surgeons, Ireland, a student gets credit for all professional studies prior to his passing an arts or preliminary examination, and the consequence of this is that the Irish students put off their registration, all that is required by the R.C.S.I. being that they should, upon presenting themselves for examination, have their necessary professional certificates, with certificate of having passed the preliminary at some date prior to going in for examination. I have been to see Dr. Bell upon this subject, and being in my fourth year of professional studies, and having all the necessary certificates required by the Ed. Board, with the exception of the full period of registration.

I beg further to request that the Council will take into their kind consideration the rules of the Irish College as regards the period of registration, and grant me permission to present myself for examination (final) in April next, having passed the first half of R.C.S.I. last July. An early reply will much oblige, as the examination for Letters Testimonial at R.C.S.I. comes off about the same time in April, of which I must avail myself in the event of being refused permission to present myself for the Ed. Examination." Yours faithfully,

WILLIAM BUNBURY EAMES, House-Surgeon, G.R.I.

Moved by Dr. ANDREW WOOD, seconded by Mr. MACNAMARA, and agreed to—"That the Council send the foregoing communication to the Royal College of Surgeons in Ireland, for the consideration of that College, calling attention to the following recommendation by the General Council in regard to the registration of medical students (Minutes, vol. xiv., p. 177, Recommendation 14):—'The several branch Councils shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory.'"

The following certificate of the conviction of a registered practitioner, referred to the General Council by the Executive Committee, was then read:—

These are to certify that at the assizes and general delivery of the gaol of our Lady the Queen, holden at Warwick, in and for the county of Warwick, on Saturday, the fifteenth day of February, in the year of our Lord one thousand eight hundred and seventy-nine, Thomas Millerchip, late of the parish of Holy Trinity in Coventry in the said county, was in due form of law tried and convicted upon a certain indictment against him for that he on the twenty-fifth day of January, in the year of our Lord one thousand eight hundred and seventy-nine, at the parish aforesaid in the county aforesaid, feloniously did kill and slay George Bastock the younger, and was thereupon ordered by the Court to be imprisoned in the House of Correction and kept to hard labour for the space of four calendar months.

Given under my hand and sale this 26th day of February, 1879.

ARTHUR D. COLERIDGE,
Clerk of Assize for the Midland Circuit.

Dr. PITMAN, after referring to Clause 9 of the Medical Act, enabling the Council to deal with cases of convicted practitioners, said the case of Mr. Millerchip would be in the recollection of all members of the Council. Briefly stated, it was this: A practitioner at Coventry, who was the Poor-law medical officer, was called upon to attend a child who was ill. The messages to attend this child were not attended to, either by himself or by an assistant whom he appeared to have in his employ. Message after message appears to have arrived, until two or three days after the child was taken ill, when at last the practitioner went to the house and found the child had died shortly previous. An inquest was held, and the verdict of the jury was that he was guilty of manslaughter. For that he was tried, convicted, and sentenced to four months' hard labour; but the jury presented a strong recommendation for mercy to the judge in consideration of the circumstances under which the neglect took place. The matter was fully dealt with in the *Medical Times and Gazette* of March 1; and he had now simply to point out to the Council that their power was thoroughly discretional in these matters, the object being to purify the Register from any names which would be disgraceful to the profession. In this case, while there would be very few who did not blame the man for his neglect, the question arose whether the man, having been punished for that neglect, the Council would now supplement that punishment, which the judge considered to be sufficient for the offence, by taking from Mr. Millerchip the opportunity of gaining his livelihood by his profession for ever. (Hear, hear.) He might add that at present there was a petition, which had been largely signed by the profession in

his neighbourhood, for a remission of the remainder of his sentence; and this showed that there was a feeling by those who knew the man that he had been sufficiently punished. Under all the circumstances, he thought it would be better for the Council, having had this matter brought before them, simply to pass it by, and leave the man to undergo the sentence of the law, and take no further action in the matter.

Dr. ANDREW WOOD then moved—"That the Council, having considered the circumstances of the case of Thomas Millerchip, do not see fit to direct that his name be removed from the Register." He thought the man had been pretty hardly dealt with already by the law. Although he had committed an offence it could not be called an unpardonable offence, and seeing that he had had already to submit to what must be for him a very severe punishment, and one which must have already greatly interfered with his worldly prospects, the Council would be going beyond the justice of the case if they were to deprive for ever this man of the means of maintaining himself and his family. (Hear, hear.) Justice should be tempered with mercy in cases of this kind—(applause)—and he was happy to hear that, in reply to the petition to which Dr. Pitman had referred, the Home Secretary had intimated his willingness to consider the case. It was exactly one of those cases in which the Council should not exercise its gigantic power by depriving a man of the means of subsistence. He did not believe that under the circumstances the licensing bodies whose degrees he had taken would consider it necessary to deprive him, and therefore he trusted that this Council would not take the initiative.

Dr. STORRAR, while not at all questioning the accuracy of Dr. Pitman's statement, advised the Council not to enter a record on its Minutes which would amount to an acquittal of this man without having better materials to judge of the justice of the sentence he had received. He would therefore suggest that the motion should be drawn up as follows:—"That the case of Thomas Millerchip having been brought before the Council, they resolve to proceed to the next step on the agenda."

Dr. AQUILLA SMITH said that the fact of the petition for the remission of his sentence having been signed by upwards of two hundred practitioners in the country showed that the case was considered a hard one, and that in fact it hardly came within the meaning of the Medical Act.

Dr. ANDREW WOOD then moved—"That the Medical Council having considered the case of Thomas Millerchip, do not see fit to erase his name from the Medical Register under Clause 29 of the Medical Act, 1858."

The motion was seconded by Dr. PITMAN and unanimously adopted.

Professor MACNAMARA, the chairman of the Dental Curriculum Committee, then brought up the following report, which was read:—

The Committee have to report that, after full consideration of the subject, they would submit the annexed tabular curriculum as being in their opinion what should be the minimum curriculum demanded of a student seeking a licence in dentistry from any of the authorities authorised to confer such.

The Committee would also suggest that the examinations should, so far as possible, be of a practical character, and should include actual operations and the preparation of specimens of mechanical dentistry.

Curriculum suggested by the Committee.

Royal College of Surgeons	General Medical Subjects to be attended at a recognised School and Hospital.										Certificates to be produced.			Examinations since Curriculo.
	Anatomy.	Anatomy of head and neck. Not less than 20 lectures, *or second course of anatomy.*	Dissections.	Physiology. Winter course.	Chemistry.	Surgery.	Medicine.	Materia Medica.	Practical Chemistry.	Attendance at a recognised General Hospital, with Chemical Instruction.	Of being 21 years of age.	Of having been engaged 4 years in Professional Studies.	Of having passed a Preliminary Examination in Arts.	
Of England	Not less than 1 Winter Session	1 course	9 mos.	1 course of 6 mos.	1 course of 6 mos.	1 course of 6 mos.	1 course of 6 mos.	1 course	1 course	Not less than 1 year	21 years	4 years	1	Candidates who were in practice or who commenced their education as Dentists before Sept. 8, 1859, and who at the time of the passing of the Dentists Act were practising in England, are admitted to examination, on the production of certain certificates, by the Royal College of Surgeons of England.
Of Edinburgh	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Candidates who were in practice in Scotland before Aug., 1878, and apprentices who commenced their education as Dentists before Aug. 1875, on the production of certain certificates.
Of Ireland	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Candidates are admitted to examination up to Aug., 1881, by the Royal College of Surgeons in Ireland on the production of certain certificates if they have been in practice *five years* before the date of this application. (a)
Faculty of Physicians and Surgeons of Glasgow	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto	

Royal College of Surgeons	Special Subjects.					
	Dental Anatomy and Physiology, Human and Comparative.	Dental Surgery.	Metallurgy.	Mechanical Dentistry.	The Practice of a Dental Hospital, or of the Dental Department of a General Hospital.	Certificate of having received instruction in Mechanical Dentistry during 3 years from a Registered Practitioner.
Of England	Not less than 24 lectures	Not less than 20 lectures	Not less than 12 lectures, unless specially included in Practical Chemistry	Not less than 12 lectures or demonstrations	2 years	3 years
Of Edinburgh	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto
Of Ireland	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto
Faculty of Physicians and Surgeons of Glasgow...	Ditto	Ditto	Ditto	Ditto	Ditto	Ditto

(a) N.B.—Every successful candidate, previous to receiving the licence, shall declare that he will not advertise, or pursue any other unbecoming mode of attracting business, so long as he holds the Licence in Dentistry of the College.

It was then moved by Mr. MACNAMARA and seconded by Dr. ANDREW WOOD—"That the foregoing report of the Dental Curriculum Committee be adopted."

Sir JAMES PAGET moved and Mr. SIMON seconded an amendment upon this—"That the last column of the first table be amended as follows:—Examinations *sine curriculo*. —Candidates who were in practice or who commenced their education as dentists before September 8, 1859, and who at the time of the passing of the Dentists Act were practising in England, are admitted to examination, on the production of certain certificates, by the Royal College of Surgeons of England. Candidates who were in practice in Scotland before August, 1878, and apprentices who commenced their education as dentists in Scotland before August, 1875, are admitted to examination on the production of certain certificates. Candidates are admitted to examination up to August, 1881, by the Royal College of Surgeons in Ireland, on the production of certain certificates, if they have been in practice in Ireland five years before the date of this application."

The amendment was carried, and having been put as a substantive motion, was agreed to.

On the motion of Dr. ANDREW WOOD it was then resolved —"That the consideration of the answers from medical licensing bodies to a letter sent to them by the Executive Committee in regard to the preliminary examination of medical students be adjourned to the next meeting of the Council."

The following communications regarding registration in the colonies from a registered practitioner were then read:—

43, Duke-street, Toronto, February 19, 1879.

Sir,—I wish to inform you of the result of a legal demand for registration made by me on the Council of the College of Physicians and Surgeons of Ontario, with which Council you, I believe, have had some correspondence on the subject of reciprocal registration.

The demand for registration made by me on the ground of my being a registered practitioner of the United Kingdom having been refused, I determined to test the legality of such a refusal in the Courts, and I accordingly applied for and obtained a rule *nisi* in the Court of Common Pleas. The rule having been served on the counsel for the Council, they, after mature deliberation, advised the Council to register me without any delay, as I was undoubtedly entitled to registration without examination in virtue of my English registration. Thus the disagreeable necessity of either running the risk of prosecution or going up for an examination in every branch has been done away with—at least, as far as I can do it; and it now remains with the British Medical Council to complete the work. The third section of the Medical Act Amendment Act for 1868, in which colonial registration is provided for English registered practitioners, only provides for it "on payment of the fees (if any) that are required," leaving it possible, though undoubtedly against the spirit of the Act, for the Council here to charge a prohibitory fee, which, I believe, they are talking of doing; so that what is wanted is a clause added for the purpose of preventing the demand for an unreasonable fee, or one at all in excess of the regular fee charged to the members of the profession who obtain their degrees, etc., in the colony. I would earnestly request your consideration of this very important matter, and trust that I have made the matter quite clear. I remain, yours very sincerely,

W. J. C. Miller, Esq., E. H. BALDWIN.
Registrar of the General Medical Council.

A second letter from Mr. Baldwin showed that an Act had been introduced to amend the Ontario Medical Act. Mr. Mowat, in bringing it in, stated that—"Some of the institutions granting diplomas in England required much less time and study on the part of a student than were exacted from Ontario students. If the Legislature chose to admit English practitioners on those terms, no objection could be taken, but to force them to do so was most unjust. He therefore proposed to provide that in cases where British physicians sought registration in Ontario, a fee of $400 should be charged. To make such an enactment was undoubtedly within the power of the Legislature, and he did not think it unreasonable that they should make it."

It was then moved by Mr. SIMON, seconded by Dr. ROLLESTON, and agreed to—"That the President be requested to bring Mr. Baldwin's letters under notice of the Colonial Office, as alleging an endeavour to introduce into the colony a system of differential registration-fees to the disadvantage of legally qualified practitioners from the mother country."

Mr. TEALE introduced the following memorial from the Obstetrical Society of London relating to obstetric medicine:

Gentlemen,—On behalf of the Obstetrical Society of London we beg to urge upon you the insufficiency of the time now allotted to the study of midwifery and the diseases of women at the English medical schools in accordance with the regulations of the licensing bodies, and to press upon you the necessity of insuring in any conjoint scheme of medical examination an adequate time for the study of these subjects. In the scheme now proposed by the English corporations the space allotted to these subjects is three months only—a time quite inadequate to their extent and importance.

Evidence of this has been recently supplied by the Royal College of Physicians in a circular sent to the various medical schools, dated January 30, 1879, which contains the following resolution:—

"That the College represents to the various medical schools the defective knowledge concerning the use of obstetric instruments evinced by candidates who present themselves for the College licence, and ask their co-operation in promoting a more accurate knowledge of these subjects."

We are of opinion that the only means capable of rendering the teaching of obstetrical medicine efficient is to make a longer study of the subject compulsory. This is the opinion of the teachers of midwifery generally. Moreover, a similar conclusion was arrived at by the Committee of the Medical Council appointed on June 26, 1868, "to consider and report upon various subjects of medical education, etc."; for, in their report, the following passage occurs: "We are decidedly of opinion that the present space allotted to midwifery in the regulations of some of the licensing bodies is too short, and that, as was formerly the case, it should extend over one winter session; and that instruction in practical midwifery should also be extended."

In the schools of Scotland and Ireland the recommendation of the Committee is in force, and the subject is taught during a winter session. The present—when a conjoint scheme of examination seems likely to become law, and when medical legislation occupies Parliament—appears to be a fitting time for effecting those changes which are necessary for the efficient teaching of the subjects in question; and we would respectfully beg the General Medical Council to approve of no scheme of medical examination which does not make provision for a six months' course of study of obstetric medicine.

We have the honour to be, Gentlemen,
Your most obedient servants,
W. S. PLAYFAIR, M.D., President.
JOHN WILLIAMS, M.D. } Hon. Secs.
CLEMENT GODSON, M.D. }

To the General Medical Council, London, March 18, 1879.

He said that the observations he had made as to the necessity of the course recommended with regard to the teaching of obstetric medicine applied to this subject, and he would not repeat them, but would simply move a resolution to the following effect:—"That the foregoing memorial from the Obstetrical Society of London, relative to the teaching of obstetric medicine, be received and entered in the Minutes; and that a copy of the memorial be transmitted to the licensing bodies named in Schedule (A) to the Medical Act (1858), for observation and report thereon to the Medical Council."

Rev. Dr. HAUGHTON, in seconding the motion, said he had no hesitation in expressing a strong opinion that everybody should be compelled to devote adequate time to the study of midwifery. The University of Dublin required a six months' course in lectures, and from time immemorial this had been the practice of the King and Queen's College of Physicians, Ireland. In the early part of 1868 he had received a letter from a graduate of the University of Dublin which had very much impressed him. He supposed it was owing to the taste for fighting which the Irish nation appeared to have that Army and Navy surgeons were principally recruited from the Irish schools of medicine; and at the time to which his correspondent alluded there was no means whatever of acquiring a practical knowledge of midwifery in the University of Dublin, except the six months' course of lectures. He had received a letter from a most distinguished graduate, who, having passed the examinations of the College, passed the Army examination, but was never tested at either as to his practical knowledge of midwifery. He then unfortunately got charge of a troopship going to New Zealand, having amongst her passengers four soldiers' wives who were delivered in the course of the voyage. As to three of them, with the help of the other soldiers' wives, who appeared to know a great deal more about the matter than he did, his duties were simple, and easily performed; but when the fourth came to be delivered it turned out to his horror to be a very difficult case, and mother and child both died. His letter showed the impression it had made on his mind, for he wrote saying—"For God's sake don't mention my name; but do have the regulations of the University altered, and henceforth allow no man to get into such a position without having acquired that practical knowledge of midwifery which is necessary to save life under such circumstances." The result was, the Dublin University adopted that recommendation, and since October 20, 1868, every graduate is required not only to attend the six months' course of lectures, but at the same time to undergo practical instruction in a lying-in hospital, or if he prefer to shorten his time, he must attend thirty cases of labour, five of which must be conducted by himself. (Applause.)

The resolution was then put to the Council and unanimously adopted.

The following report of the Executive Committee on the

qualifications for registration under the Dentists Act, 1878, was then read:—

In conformity with the resolution of the Council (Minutes, vol. xv., p. 161, Clause 4), the Executive Committee have made inquiries respecting the courses of study and the examinations to be gone through in order to obtain the dental qualifications granted by medical authorities in the United Kingdom (Minutes, vol. xv., p. 223, Clause 8), and report as follows:—

The authorities which grant, or propose to grant, qualifications registrable under the Dentists Act are the Royal College of Surgeons of England, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Surgeons in Ireland.

The particulars which have been received respecting the courses of study and the examinations for these qualifications are added as Appendices A, B, C, D to this report.

In each instance the candidate is required to be twenty-one years of age, to have passed one of the preliminary examinations recognised by the Medical Council in the case of medical students, to have been engaged four years in the acquirement of professional knowledge, to have been engaged three years in the acquirement of practical knowledge under a registered practitioner, and to produce evidence as to moral character.

The Royal College of Surgeons of England further requires for its diploma in dental surgery, as evidence of general medical study, certificates of attendance on a course of lectures on each of the following subjects:—Anatomy, physiology, surgery, medicine, chemistry, and materia medica; a second course on anatomy, or not less than twenty lectures on the anatomy of the head and neck, of dissection during nine months, of chemical manipulations, and of attendance on the practice of surgery and clinical lectures at a recognised hospital during two winter sessions. As evidence of special study of dentistry, certificates are required of two courses of lectures on each of the following subjects:—Dental anatomy and physiology (human and comparative), dental surgery, dental mechanics, and one course on metallurgy, and of attending the practice of dental surgery at a recognised hospital during two years.

All the lecturers must be recognised by the College.

For the dental diploma of the Royal College of Surgeons of Edinburgh the requirements differ from those of the English College in that six months of clinical instruction in surgery is required instead of twelve, that one course of lectures, instead of two, is required in each of the special dental subjects, and that metallurgy is included in the course of practical chemistry.

The requirements for the dental diploma of the Faculty of Physicians and Surgeons of Glasgow correspond with those for the dental diploma of the Royal College of Surgeons of Edinburgh.

In the requirements for the dental diploma of the Royal College of Surgeons in Ireland the subject of medicine is omitted, and there is no provision for the study of dental anatomy and physiology; mechanical dentistry is included in practical surgery, metallurgy is included in practical chemistry, and nine months only of attendance on the practice of dental surgery is required, though it may be observed that this is to be additional to the two winter sessions of general hospital practice.

The educational curriculum of the Irish College is therefore distinctly inferior to that of the other three colleges; and the Committee are of opinion that it should be strongly recommended to this College to extend the period of attendance on the practice of dental surgery at a hospital which is required, and to include, at least, the subjects of medicine and dental anatomy and physiology in the requirements for its diploma.

The examinations are in each case to be conducted by three Fellows of the College and three persons registered under the Act, and they will be written and oral in the several subjects. The Committee feel it important that the examinations should also be made practical, so as to be a test of the candidate's ability and skill in operations and in treating the derangements which may be submitted to his care, and they advise that the Council should make a recommendation to this effect.

The Executive Committee have also, in conformity with the resolution of the Council (Minutes, vol. xv., page 161, Clause 5, and page 223, Clause 10), obtained information respecting the courses of study and the examinations to be gone through by applicants for diplomas in dentistry at fifteen foreign and colonial universities and colleges. This information, together with a schedule and a tabular summary compiled therefrom by the Registrar, will be found in the Appendices E, F, G to this report.

The Committee are of opinion that the certificates of the degree of Doctor of Dental Medicine granted by Harvard University, and of the degree of Doctor of Dental Surgery granted by the University of Michigan, may be recognised by the Council, under Clause 10 of the Dentists Act. In each of these institutions the candidate for the degree is required to have devoted three years to professional study, and to have attended lectures and courses of instruction at a dental college during two years. The examinations, which are written and practical, including actual operations and the preparation of specimens of mechanical dentistry, appear to furnish sufficient guarantees of the possession of the requisite knowledge and skill for the efficient practice of dentistry or dental surgery.

With regard to the other institutions, it appears that, in most instances, not more than two years of professional study are required; and the Committee feel that further information is needed respecting the courses of study and the examinations before they can recommend the Council to recognise the certificates granted by them.

It appears to be the universal practice in America to conduct the examinations exclusively by the professors or teachers in the faculty of the institution granting the diploma; and a preliminary examination is required only at the University of Michigan, and at one other institution.

The Appendices referred to consist of—Letters containing detailed accounts of the regulations of the following medical authorities:—The Royal Colleges of Surgeons of England, Ireland, and Edinburgh; the Faculty of Physicians and Surgeons of Glasgow; the Dental School of the University of Harvard, U.S.; the "American University of Philadelphia"; and the University of Pennsylvania; together with a report of the Committee appointed by the American Legislature to investigate the sale of fraudulent diplomas. A communication from the Commission Médicale de la Province de Liége. A communication from Mr. Isidor Mordaunt Sigismund, setting forth "details connected with the fraudulent transactions" of the "Eclectic Medical College of Pennsylvania" and the "American University of Philadelphia," wherein it was affirmed, from the writer's own personal knowledge, that "men who had never been to America, but who had failed to pass a satisfactory examination in Europe, received their diplomas from Philadelphia without personal attendance before the Faculty of the College"; that "the American University of Philadelphia collapsed through its disgraceful traffic in degrees"; that "in May, 1872, the charters of both these institutions were repealed by the Legislature," although, "by some hitch, the charter of the University could not be effectually withdrawn," doubts having arisen "whether the charter was not perpetual"; that "a new firm, trading under the sign of the 'American University,' rose from the ashes of the defunct 'Eclectic Medical College'"; and that this new firm had ever since gone on conferring "diplomas *in absentiâ*"; together with corroborative extracts from the *Dental Cosmos* and the *Boston Daily Advertiser*. A letter from the Pennsylvania College of Surgery, certifying to the degree in dental surgery of one Herbert Poate, and similar communications from the Dental Association of the Province of Quebec, and the Royal College of Dental Surgeons of Ontario.

As an amusing illustration of the kind of matter contained in this instructive report, we append a *précis* made by Mr. Miller, Registrar of the General Council, of a pamphlet appended to the letter from "The American University of Philadelphia":—

"The Twenty-eighth Annual Announcement of the American University of Philadelphia, and Eclectic Medical College of Pennsylvania, 1878-79," wherein it is set forth that the University possesses a "faculty" of sixteen professors, who are said to give six lectures daily on a great variety of subjects, comprising "Nervous Diseases," "Electricity and Jurisprudence" (united in one chair), "Gynæcology," "Operative Dentistry," etc.; that the graduates of the University "may be numbered by thousands," and that they "form the great representative men of North America and Great Britain"; that their "students will have superior advantages over all other medical schools, as by our pathology and materia medica the treatment of many incurable diseases is rendered easy and efficacious"; that their "lecture-rooms are supplied with all modern conveniences"; and that their "anatomical museum is the largest in the United States, containing 2500 specimens of normal and morbid diseases, delineating every disease incident to the human body." With a tender solicitude lest students seeking to enjoy the great advantages thus held out to them should miss their way or fall into the hands of the Philistines, they are urged by an especial notice to "have the address of the College (514, Pine-street) clear in their mind," and to "take advice from no one, for they must bear in mind the allopathic bullies are so desperate, and the swindling-shops of bogus colleges are so numerous, that our students must not be imposed upon."

A further appendix contains the Registrar's schedule, setting forth the course of study and the modes of examination on dental diplomas in various foreign and colonial universities and colleges. These embrace the Harvard University Dental School; the Ohio College of Dental Surgery; the New York College of Dentistry; the Philadelphia Dental College; the Pennsylvania College of Dental Surgery (Philadelphia); the University of Pennsylvania Dental Department (Philadelphia); the American University of Philadelphia, and Eclectic Medical College of Pennsylvania (Philadelphia), Dental Department; the University of Michigan Dental College; the Baltimore College of Dental Surgery; the Boston Dental College; the Western College of Dental Surgeons (St. Louis); the Maryland Dental College (Baltimore); the Missouri Dental College (St. Louis); the Dental Association of the Province of Quebec; and the Royal College of Dental Surgeons of Ontario. A useful tabular summary of these, compiled by the indefatigable Registrar, Mr. Miller, is as follows:—

APPENDIX (G).—*Tabular Summary of Requirements for Foreign and Colonial Dental Diplomas.*

Requirements for Dental Diploma.	By which of the foregoing Universities and Colleges exacted.
Age 21	Each of the American Dental Colleges except (9) Baltimore.
Preliminary Examination	(8) University of Michigan; (11) Western College of Dental Surgeons.
Three years to be devoted to professional studies, including two courses of lectures	(1) Harvard University; (8) University of Michigan; (10) Boston Dental College.
Two years to be devoted to professional studies, including two full courses of lectures	(2) New York College of Dentistry; (4) Philadelphia Dental College; (5) Pennsylvania College of Dental Surgery; (6) University of Pennsylvania; (13) Missouri Dental College.
Two courses of lectures, generally extending four or five months	(2) Ohio College of Dental Surgery; (9) Baltimore College of Dental Surgery.

Requirements for Dental Diploma.	By which of the foregoing Universities and Colleges exacted.
Two years of pupilage . No definite term or manner of study required	(7) American University of Philadelphia. (11) Western College of Dental Surgery; (12) Maryland Dental College.
General medical lectures to be attended at a recognised medical school	(1) Harvard; (6) University of Pennsylvania; (8) University of Michigan; (13) Missouri Dental College.
General medical lectures to be attended at a dental school, and adapted or lowered to the assumed wants of the dental student	(2) Ohio; (3) New York; (4) Philadelphia Dental College; (5) Pennsylvania College of Dental Surgery; (7) American University of Philadelphia; (9) Baltimore; (10) Boston; (11) Western College; (12) Maryland.
One course of lectures to be attended at this College; the other, at option, elsewhere	Common to all the Dental Colleges that require attendance on lectures.
Five years' practice, including pupilage, allowed to take the place of one course of lectures	(2) Ohio; (5) Pennsylvania College of Dental Surgery; (9) Baltimore.
Degree in medicine allowed to count as one year and one course of lectures	(8) Michigan; (3) New York; (9) Baltimore.
One course of lectures *may* have been attended in a medical school	(2) Ohio; (10) Boston.

The subjoined opinion by Mr. Charles Bowen in regard to the following resolution passed by the General Council in 1878 (Clause 9), was then read—"That Mr. Ouvry be requested to obtain the opinion of counsel as to the interpretation of Clause 6 of Section 11 of the Dentists Act, so as to inform the Council whether under that clause they are entitled to register in a separate column the qualifications in medicine and surgery under the Medical Act (1858) held by registered dentists, or only higher qualifications in dentistry."

66, Lincoln's Inn-fields, London, October 25, 1878.

Dentists Act.

Dear Sir,—We have submitted a case to counsel on the interpretation of Clause 6 of Section 11 of the Dentists Act, in accordance with the resolution of the General Medical Council accompanying your letter of the 21st inst.; and the opinion of Mr. Charles Bowen is as follows:—

"I am of opinion that Section 11, Clause 6, only gives the Council power to register higher qualifications in dentistry. The knowledge referred to in that clause appears to me to be confined to knowledge in dentistry."

We are, dear Sir, yours truly, FARRER, OUVRY, AND Co.

W. J. C. Miller, Esq., Registrar of the General Medical Council.

The following resolutions were then adopted by the Council:—

Moved by Dr. AQUILLA SMITH, seconded by Dr. HALDANE, and agreed to—"That the column for additional diplomas, memberships, degrees, licences, or letters, be omitted in the forthcoming edition of the 'Dentists' Register.'"

Moved by Dr. PITMAN, seconded by Dr. ANDREW WOOD, and agreed to—"That in consequence of counsel's opinion received, the Registrar do not make entries in the column headed 'Additional Diplomas, Memberships, Degrees, Licences, or Letters.'"

Moved by Dr. HUMPHRY, seconded by Dr. ANDREW WOOD, and agreed to—"That the Executive Committee be directed to carry out generally the provisions of the Dentists Act, in accordance with the resolutions of the Council."

The REGISTRAR then read the following application for registration under Section 37 of the Dentists Act (1878), referred to the General Council by the Executive Committee (Minutes for March 5, 1879, pp. 54-56):—

Austin's Court Farm, near Lichfield, December 24, 1878.

Sir,—I consider I have a claim to be registered under Section 37 of the Dentists Act, 1878, for which purpose I submit a copy of my indenture, which I have sent in accordance with instructions sent to me by the Secretary of the Dental Reform Committee, who informs me that he is sure my case will be dealt with in a liberal spirit, and that I was to state my case in full to you.

Supposing I had only been apprenticed for four years, I should have been entitled to register, but by serving five I am excluded from it; nevertheless a pupil serving four years, and commencing after me, would be entitled to register: therefore I think you will agree with me that my case is a very hard one, and, in the true meaning of the Act, I am equally entitled to it.

If you will kindly do me the favour to bring my case before the Medical Council I feel assured my desire to obtain registration will be effected, for which I shall feel very much obliged to you.

I am, Sir, your obedient servant,

W. J. C. Miller, Esq. ARTHUR COXON.

It was then moved by Dr. HUMPHRY, seconded by Dr. ANDREW WOOD, and agreed to—"That Mr. Arthur Coxon be allowed to be registered under Clause 37 of the Dentists Act, on application at the termination of his apprenticeship."

Moved by Dr. AQUILLA SMITH, seconded by Dr. ANDREW WOOD, and agreed to—"That the powers and duties heretofore delegated to the Executive Committee be vested in the said Committee until the next meeting of the General Medical Council."

Moved by Dr. AQUILLA SMITH, seconded by Dr. PETTIGREW, and agreed to—"That the cordial thanks of this Council are eminently due, and are hereby tendered to Dr. ANDREW WOOD, for his services as Chairman of the Business Committee during the present Session of the Council."

Moved by Dr. AQUILLA SMITH, seconded by Dr. ANDREW WOOD, and agreed to:—"That the cordial thanks of the Council are due, and are hereby tendered, to the Treasurers, Dr. Quain and Dr. Pitman, for their services."

Moved by Dr. AQUILLA SMITH, seconded by Dr. ANDREW WOOD, and carried by acclamation:—"That the thanks of the Council are hereby cordially tendered to Dr. Acland, the President, for his efficient services during the present session of the Medical Council."

Previous to the adjournment of the Council a quorum remained and confirmed the Minutes.

ORIGINAL COMMUNICATIONS.

ON

COLOUR-SIGHT AND COLOUR-BLINDNESS.(a)

By J. R. WOLFE, M.D., F.R.C.S.E.,

Surgeon to the Glasgow Ophthalmic Institution, Lecturer on Ophthalmic Surgery in Anderson's College.

COLOUR-BLINDNESS having for the last few years occupied so much of the attention of the literary and scientific world, I wished to ascertain to what extent that defect exists among the rising generation of this community. With this view we formed a commission, consisting of Dr. Cumming, Dr. Pickering, and myself, and, with the permission of the School Board, we visited several schools and examined upwards of 2000 children. I propose in this paper to submit the result of our examination to this Society.

It is a comparatively recent subject. The first cases of colour-blindness were published by Joseph Huddart in the *Philosophical Transactions*, London, 1777. But the subject excited little interest till the year 1794, when the celebrated English chemist Dalton, who was red-blind, published an account of his own case, which attracted so much attention—it being considered a rare curiosity—that subsequent writers called the defect Daltonism.

In 1805 that stupendous genius Goethe published a treatise on the pathology of colour-sight. In 1837, Professor Seebeck was the first to examine a number of colour-blind persons, and to classify the degrees of their abnormal condition. But the most important work on the subject was that of Dr. George Wilson, Professor of Chemistry in Edinburgh, which first appeared in the *Monthly Journal of Medical Science* for November, 1853. "My own special attention," says Wilson, "was directed to the subject from the blunders which I found many chemical pupils make in reference to the colours of compounds. After making every allowance for imperfect exposition on my part, and insufficient attention on the part of my students, and after also making a large deduction for inaccurate answers on the score of imperfect remembrance and inability to name colours, I still found, in the laboratory and lecture-room, that many a pupil was puzzled to describe the changes which occur when an acid or an alkali acts upon a vegetable colouring matter, although, to a normal eye, these changes are of the most marked character, and that, in general, I could count with little confidence upon accurate answers to questions regarding the colours of bodies."

A great deal has since been written on the subject, both in France and Germany. The most comprehensive treatise on colour-blindness appeared recently by Professor Holmgren, of Upsala, Sweden. It is only just to the Edinburgh professor to say that Holmgren's most striking points are due to Wilson's suggestions. Great credit is due to Dr. Foy Jeffries, of Boston, for his valuable efforts to direct public attention in America to that subject. Dr. Stilling, of Cassel, and Dr. Cohn, of Breslau, have also given us valuable contributions to the study of this subject, and my excellent friend, Dr. Hugo Magnus, of Breslau, has written

(a) Read before the Glasgow Philosophical Society, March 5, 1879.

several *brochures* which have called forth high eulogiums from Mr. Gladstone, who published a paper on "Colour Sense of Homer" in the October number of the *Nineteenth Century* in 1877. Mr. Gladstone's paper was mainly instrumental in directing public attention to the subject in this country—the more so, that it was at a time of feverish political excitement that England's great statesman and scholar was able to shake off Russ and Bulgarian, and to devote some hours to the study of the "Colour Sense of the Homeric Period." I propose to speak to you this evening on perception of colour in its practical bearing upon certain occupations, especially *employés* on railways and sailors. A few introductory remarks on the physiology of vision will facilitate the treatment of the subject.

The eye is the organ which brings us into contact with the world around us, by giving us an image of objects; of their size, shape, and colour. The medium through which this effect is produced is primarily the retina and optic nerve. The retina receives the impression of light and colour emanating from objects, which impression is conveyed to the brain by means of the fibres of the optic nerve. This is the organ of vision in its most rudimentary form, as met with in the lowest forms of animal life, consisting of a nervous cord, and colouring matter for absorbing the rays of light. But in ascending the scale of animal life, we have the visual organ in a degree of perfection and development commensurate with its requirements.

The human eye in its totality may be regarded as a photographic apparatus, consisting of retina to receive the image, optic nerve to conduct the impression, compound lens for refraction, camera, adjusting apparatus, nerves for regulating its movements, and nerves for its nutrition. When we consider that the eye is a self-adjusting apparatus, serving the purposes both of telescope and microscope, and that the retina is a kind of plate, which not only receives the impression of objects from without, but upon which also are registered the changes that are going on in the brain, heart, kidneys, and other organs, and that its materials are composed of organic substances subject to structural changes, we must admit that, with all its optical imperfections, the eye is an instrument not lightly to be spoken of.

That the retina is a membrane corresponding to the photographer's plate, is a statement which I could not have made to you two years ago. All that we then knew of the retina was, that it consisted of five layers, and that the outer layer (rods and cones) was the impressible membrane which Heinrich Muller demonstrated in 1847, but by what mechanism we were left to mere conjecture. It is only two years since Prof. Boll, of Rome, published his observations on the photo-chemical action of the retina.

Experiment.—Take a frog, and keep it in darkness for some time, then decapitate it, and keep the head in a dark place for twenty-four hours; remove the eyeball, open it, and examine the retina, which you will find of a beautiful red colour; expose it to the sunlight, and the red gradually vanishes, the membrane gets pale, then yellowish, and ultimately becomes like white satin. This red principle of the retina, which is generated in darkness, and decomposed in sunlight, Boll calls erythropsine. That it exists after the death of the animal, shows that it is not a transitory property, but a durable chemical element of the retina, analogous to the hæmoglobin of the stroma of the red corpuscles of the blood.

The erythropsine is transformed by the light into several physiological combinations, the same as hæmoglobin is changed by the action of different gases. The different chemical combinations resulting from the action of light upon the erythropsine—in other words, this photo-chemical process—constitute the essence of the perception of light and colour.

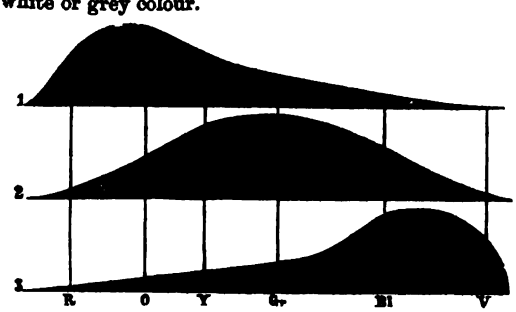
There is another factor in this physiological laboratory which we must notice—namely, behind the retina there is a layer of epithelium, covered with pigment cells of hexagonal shape. These cells contain oil globules, which Boll considers to be the primary materials from which the erythropsine is incessantly reproduced.(b) The experiments made by Boll upon frogs, and cartilaginous and osseous fishes, have been repeated with the same result upon the human subject by Professors Schenke and Zuckerkandel of Vienna, after a capital execution.

A propos of the photo-chemical theory, it appears to me to bring us one step nearer to a comprehension of the intimacy which exists between mental operation and physical action. Without losing myself in metaphysics, I would merely indicate that it shows us that the image of objects is actually impressed on the retina, which the mind stores up: memory is the faculty of bringing forth these plates when required. Thus the analogy between the retina and the photographer's plate is strictly correct, only that the retina gives us a chromo-photograph.

Now with regard to the perception of colour. Newton has demonstrated that white light, as emitted from the sun or from any luminous body, is composed of seven different kinds of light, viz., red, orange, yellow, green, blue, indigo, and violet. If we admit a beam of the sunlight through a small hole in the window-shutter of a dark room, it will go on in a straight line and form a round white spot on the wall. If we now interpose a prism whose refracting angle is such that this beam of light may fall upon its first surface and emerge at the same angle from its second surface, and if we receive the refracted beam upon a screen, instead of a white spot there will be formed upon the screen an oblong image of the sun, containing the seven colours, which is called the solar or prismatic spectrum. These seven colours are called primary colours, because they cannot be decomposed: pass one of them through a prism, and it will merely be bent, the colour still remaining the same. All colours used in the industries are only mixtures of different pigments, which are decomposed by the prism.

Adopting the undulation theory of light, and looking at the solar spectrum, we find that red, which has the longest wave, is the least refrangible colour; whilst violet, which has the shortest wave, is the most refrangible; and green, which has the medium length of wave, occupies the middle of the spectrum or is of medium refrangibility.

Upon this simple view of the subject is founded the theory of perception of colour, first propounded by Thomas Young, and lately defended by Helmholtz, which is generally adopted under the name of the Young-Helmholtz theory, which is this, that the retina has three distinct kinds of nervous elements, each of which perceives one of the three fundamental colours, red, green, and violet. The first of these elements is excited in the highest degree by the red rays, but also slightly by the green, and feebly by the violet rays. The second category is impressed by the green rays, and also feebly by the red and violet rays. Thirdly, the violet rays excite strongly the elements of the third category, which are little sensible to the green rays, and in a still less degree to the red. Every one of these elements, when excited, transmits to the brain the impression of its own fundamental colour. The impression of the intermediary colours is given by the excitation of two or three of these groups in different degrees. When all the three are equally excited, the result is white or grey colour.



NOTE.—This figure of Helmholtz explains his theory:—1 expresses the different degrees of excitation of red; 2, that of green; 3, that of violet. The vertical lines indicate the relation of the different coloured rays to the three nervous elements. The red, green, and violet rays touch the highest points of the figures. The other lines also indicate the degree to which they excite the different retinal elements, by the extent to which they encounter the different figures.

This theory, although the only explanation we are at present able to give of chromatic perception, yet, as microscopic anatomy has never demonstrated these three fibres, we must still regard as merely a hypothesis and provisional, which

(b) These peculiarly shaped pigment cells behave very curiously. They seem to be migratory cells. When the eyes have been kept in a dark place or in a red or yellow light, the retina can be easily separated from the pigment layer, as a distinct membrane; but when the eyes are exposed to white, green, blue, or violet light, the pigment extends into the interstices of the retina, and the rod and cone layer cannot be separated from it.

may belong to the same class as that of luminous perception, prior to Boll's discovery of the photo-chemical process. But, with this new point of departure, I venture to think that we may yet construct an ophthalmo-spectroscope, or another apparatus to explore the retina, and chemists may yet succeed in analysing the erythropsine. We may perhaps find in it a more simple explanation of the perception of colour. The little that we do know of the behaviour of erythropsine, under the influence of various coloured rays, is sufficient to show that it is an important factor in chromatic as well as in luminous perception.(c)

Since writing the above, I received a communication from Professor Boll, informing me that he had several interesting conversations with Helmholtz on this subject. He says: "On the main point of the question, Helmholtz agreed with me entirely, but some of his observations contributed very largely to correct my first views. I still continue to retain as certain the Young-Helmholtz theory that every sensation of colour is composed of three different sensations. I admit in the retina the existence, not of three nerve-fibres, but of three different kinds of percipient organs—viz. 1st, the pigment cells; 2nd, the cones; 3rd, the rods. Every sensation of colour is threefold, being composed of three different irritations—the irritation of the pigment cells, the irritation of the cone, and the irritation of the rod. Helmholtz agrees with me, that the proofs for this new theory are quite sufficient." He read a memoir before the Academia dei Lincei, entitled "Tesi ed Ipotesi nelle Sensazione della Luce e dei Colori," which will be published next month.

Every healthy retina, then, receives an impression of different lights and also of different colours. In a state of disease, there are abnormal sensations of colour, as, for instance, in some forms of atrophy of the optic nerve, in hysterical epilepsy, and in the case of habitual drunkards, etc.; but every retina, in the exercise of its healthy functions, is capable of receiving the impression of colour and its various shades, and of communicating that impression to the brain. The acuity of perception of the different shades may be developed by practice, the same as the ear to notes, but that physiological faculty cannot be absent, unless in exceptional cases, when we must regard it in the same light as hare-lip, cleft palate, deficiency of fingers or toes, or any other congenital abnormality. The theory advanced by Magnus is, that man, in his primitive condition, had no perception of colour; in the next stage of development, red and yellow became visible; in the third, green and its varieties; and in the fourth, blue and violet came to be recognised. He thinks that will account for the confused manneri n which the ancient writers describe colours. Indeed, in speaking with a well-educated colour-blind person, he was reminded of reading Homer.

Mr. Gladstone, who twenty years ago was struck with the fact that Homer's colour-adjectives and colour-descriptions of the poems were not only imperfect, but highly ambiguous and confused, says, "I rejected the supposition that this was due to any defect in his individual organisation, and found that his system of colour, or rather his system in lieu of colour, was founded upon light, and upon darkness its opposite or negative, and that the organ of colour was but partially developed among the Greeks of his age." Now, Magnus, adopting the development theory, has with great erudition endeavoured to reconcile it with the physiological action of the retina, and Mr. Gladstone finds in it countenance for the opinions he had long since expressed with regard to the Homeric Poems.

From the views given above of the physiological action of light on the retina, it will be seen how entirely I differ from my friend Dr. Magnus, as also from Mr. Gladstone's reading of Homer.

(c) 1. In complete darkness, retinal red is like the middle of spectral red. 2. After long exposure to solar rays, the retina becomes colourless. 3. In red light, retinal fundamental red becomes more saturated, like Pompeian or brownish red. 4. Yellow light does not much alter the fundamental colour of the retina, but renders it a little brighter. 5. Green light: (a) the action of an intense green light, when of short duration (or one of medium intensity prolonged), changes the fundamental colour into purple red, which, getting paler, turns into rose colour; (b) when an intense green light is prolonged, the red purple passes off, becomes paler, and at last colourless. 6. Blue and Violet: (a) when of feeble intensity (or intense and of short duration), the colour changes into a muddy violet; (b) when the intense rays are prolonged, the violet is effaced, and the retina becomes quite colourless. 7. Ultra-violet rays have no physiological action upon the retina, however long they are continued. These observations are in many respects incompatible with the Young-Helmholtz theory of colour-perception.

Does the Homeric text shut us up to the conclusion that either the poet or the whole Greek nation were colour-blind?

It appears to me very difficult to entertain such a view. The Greeks of the Homeric period could not have been colour-blind, when we find that all the colours of the spectrum are found in their language. They have *μέλας*, black; *λευκός*, white; *ἐρυθρός*, red; *φοινίξ*, dark red; *ξανθός*, auburn; *χρύσεος*, golden; *χλωρός*, greenish-yellow; *κυάνεος*, blue; *πορφύρεος*, purple. That they sometimes misapplied the terms has nothing to do with the question; it is quite a common occurrence in the poetry of our own advanced age. The expressions *κροκόπεπλος Ἠώς*, saffron-robed Aurora, and *ῥοδοδάκτυλος Ἠώς*, rosy-fingered Aurora, are exquisite personifications, although the tints of the rising sun may not correspond to a nicety to rose or saffron colour. The *realistic* word-painter Dante has also pictured Aurora—

> "Si che le bianche e le vermiglie guance,
> Là dove io era, della bella Aurora,
> Per troppa etate divenwan rance."—(*Purgat.*)

Of which the following is a faint rendering:—"So that, there where I was, the white and vermilion cheeks of beautiful Aurora have, through advanced age, become of orange hue." Bearing in mind what Macaulay says of the Florentine poet, we must admire this perfect picture as characteristic of, and in keeping with, his *intense realism*, if I may use that expression; but it cannot be admitted as superior, if at all approachable, to the sublime suggestive touch where *Ἠὼς μὲν κροκόπεπλος ἐκίδνατο πᾶσαν ἐπ' αἶαν*—saffron-robed Aurora was spread over all the earth. Still less can we make of Homer's varied application of the term *πορφύρεος*, purple, for this colour is not found in the spectrum, but is a mixture of its two extremes—viz., red and ultra-violet. It may, therefore, with propriety, be applied to female robes, to the rainbow, to blood, cloud, etc.

We may notice, in passing, the manner in which Homer treats ladies' eyes. Juno, as the queen of gods, the dignified matron of Olympus, is described as *βοῶπις Ἥρη* (ox-eyed)—meaning a large, round, dark eye; while Minerva, the goddess of wisdom, is described as *γλαυκῶπις Ἀθήνη*, which we were taught to translate "blue-eyed Minerva," until informed by the high authority of Mr. Gladstone that it does not refer to colour at all, but it is to be translated "bright or flashing eyed." There is no doubt, however, that the Greeks used *γλαυκῶπις* to signify blue-eyed, for Herodotus speaks of the Budini, a Scythian tribe in Southern Russia, as *γλαυκὸν καὶ πυῤῥόν*, blue-eyed and red-haired.

Among the interesting communications which Mr. Gladstone's article has called forth, is one by Herschel, in *Nature* for November 28, 1878, who calls attention to the fact that Homer, once at least, styles himself "a downright blind man"; and Herodotus, in his Life of Homer, states that "he was born 167 years after the Trojan War, and when still a child was adopted by his stepfather, to whom he succeeded in the management of a school. At an early age, however, he set out for distant voyages. When about thirty-four years of age, he lost his sight from a chronic disease of the eyes. Previously, when at Ithaca, he had a narrow escape from that calamity." Judging from this epitome, I think it most probable that he was neither blind nor colour-blind, but his vision was dim from an attack of Egyptian ophthalmia, which he contracted on his voyage. The quotation from Herodotus just referred to can hardly be construed into anything else than a relapse of that affection which he contracted at Ithaca. In the East a blear-eyed person is called blind, but Homer may have been suffering merely from partial opacity of the cornea, the consequence of the affection just mentioned, which a strolling minstrel is most likely to get.

I examined a large number of discharged soldiers and others suffering from Egyptian ophthalmia (some in its most aggravated forms), and I found that the perception of colour was not prejudiced thereby.

Reference is made by Mr. Gladstone to the Prophet Ezekiel (i. 27, 28), who was also in a backward state in regard to colour-perception. The prophet describes the rainbow—"I saw, as it were, the appearance of fire, and it had brightness round about. As the appearance of the bow that is in the cloud in the day of rain, so was the appearance of the brightness round about," which, Mr. Gladstone thinks, cannot be explained but by supposing that, for the eye of the prophet, red was the fundamental and exclusively prevailing colour of the rainbow. We are not told whether we

are to infer that the Prophet Ezekiel himself was colour-blind, or whether the Jewish nation of that period were in a backward state. If the Homeric argument is to apply to Ezekiel, it would be very remarkable indeed, for in that case the Jewish nation, instead of progressing in the appreciation of colour, must have sadly degenerated, for we find that nine centuries before Ezekiel, when they had just escaped from Egyptian bondage (Exodus xxviii. 17-21), Moses commanded the children of Israel to set the breast-plate of the High Priest with twelve stones. Amongst these were the carbuncle, emerald, sapphire, amethyst, etc., representing all the spectral colours. That the primitive man was not born with an absolute blindness to colour, and that his chromatic perception was not left to progressive education of the eye, is proved from the fact that the mother of mankind could distinguish the colour of the fruit, for she saw it "beautiful to the eye"; and we know that a colour-blind person cannot distinguish ripe cherries, strawberries, or apples, from the leaves, except by the form.

It appears, therefore, that Dr. Magnus, misled by the beautiful Darwinian theory of development, has entangled Mr. Gladstone in a hypothesis, which, from a physiological as well as from a historico-critical point of view, cannot be seriously entertained.(d)

But the ethnological question, however interesting, sinks into insignificance when compared with the practical aspect of the subject, which involves the interest and safety of the public.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

A CASE OF CEREBRAL TUMOUR.

(Under the care of Dr. BROADBENT.)

[The notes of the following cases are from the reports of Mr. J. A. Wrestra, the Ward Clerk.]

Edith G., aged thirty-eight, married, was admitted on January 17, 1879. She stated that her father and two brothers had died of consumption; the other members of her family were healthy. She herself had never had any serious illness, and was quite well until about three months before admission. She then began to suffer from frequent attacks of frontal headache—at first slight and intermittent, but subsequently becoming more severe. She had no fits nor attacks of vomiting, but frequently had partial loss of consciousness, and had feelings of nausea in the morning.

Her memory failed, and she occasionally lost control over the right hand, dropping dishes, etc. She was often dizzy, and had a feeling of numbness commencing in the left middle finger and spreading over the whole hand. Loss of power in the left arm followed, and she also began to have an increasing dislike to speaking or any form of mental exertion.

When admitted, patient was a stout, ruddy-looking woman, moderately quick in movement, and able to walk well, sensation and movement of the lower extremities being perfect. There was very considerable loss of power over the right arm and hand, along with some impairment of sensation in the same region. The motive power seemed better in the flexors than in the extensors. The tongue, when protruded, was decidedly inclined to the left. The pupils were equal; there was some twitching of the left eyelid. Speech was slightly indistinct. She complained of severe frontal headache, not, however, localised on either side. Patient seemed more deficient in ideas than in the power to express them. When asked simple questions, such as the names of her brothers or sisters, she was often unable to answer, and the thinking process was evidently slow and laborious. The power to name common objects varied: thus she could name a pen, but not an inkstand; could not name her finger or thumb, but could name the bed-quilt; could tell her own and her husband's names, but was apparently unable to remember those of her brothers and sisters. On the day following admission, when asked questions and allowed plenty of time, her answers were much better. She could give the names of most ordinary things, and mentioned the names of several of her friends. She gave correctly the ingredients and their quantities for "gingerbread pudding," but broke down over "mincemeat"; and this mental exertion having fatigued her, she was then unable to give any account of the composition of "plum pudding." She could read readily, could tell the time by the clock, but was exceedingly slow over the simplest processes of mental arithmetic. On another occasion she was able to give a coherent account of the illness and death of a little girl in a neighbouring bed, and although she was at times very confused, and spoke very slowly, she managed to complete the story.

January 22.—The frontal headache continues and the mental state remains about the same. Iodide of potassium in four-grain doses has been ordered to be given three times a day.

27th.—There seems to be a little more power of movement in the right hand. It has been noticed that the temperature in the right axilla has been slightly higher than on the left side. The headache appears to be almost absent in the morning, but returns towards night.

February 4.—The mouth is decidedly drawn to the right side; the right pupil is about half the size of the left. The temperature in right axilla is 98·4°, in the left 97·2°.

11th.—Patient vomited twice last evening. The other symptoms remain about the same. On examining the eyes with the ophthalmoscope, Dr. Broadbent found double optic neuritis. The left disc was elevated, the arteries small; no hæmorrhage was detected. The right disc was better defined, but pale, with radiating striation and one or two white spots visible.

14th.—The dose of the iodide has been increased to eighteen grains. The headache is intense and not confined to the frontal region. The pulse is quick, and the inequality of the temperature on the two sides remains. Her appetite is bad; she does not sleep well; is somewhat depressed in spirits.

15th.—To-day the pupils are equal, and the patient complains less of pain. There is a small amount of albumen in the urine, hitherto fairly normal.

27th.—Patient's sleep has lately been much disturbed by intense frontal headache, which usually comes on about midnight, and lasts until the evening of next day, thus giving her only a few hours' intermission. The tongue, when protruded, inclines strongly to the right side; the mouth is not drawn; the urine is free from albumen; in other respects patient's condition is not much altered. To-day the iodide of potassium has been discontinued.

March 4.—The frontal headaches have been much relieved since the discontinuance of the iodide. Patient can now grasp an object with the right hand. A blister has been applied behind the right ear.

11th.—There has been a gradual decrease in the duration and severity of the headaches, and there is now more grasping power in the right hand. The tongue is not now protruded towards the right; the pupils are equal, and the pulse is slower.

18th.—Pulse 84. During the last week the headache has only lasted a short time daily; to-day it was felt for an hour. The pupils are equal, the tongue is presented normally, and there is a decided improvement in memory.

27th.—The headaches still return with more or less severity at intervals, and during the attacks speech seems to be more difficult than at other times. Patient remains in hospital.

(d) In thus speaking of Magnus's views, I refer only to "Die geschichtliche Entwickelung des Farbensinnes" (Leipsig, 1877); but we are indebted to him for his excellent publications on the subject, "Die Farbenblindheit" (Breslau, 1878), and "Beiträge zur kintnias der Physiologischen Farbenblindheit," in *Graefe's Archiv* (Berlin, 1878). It is also with great pleasure that I embrace this opportunity of expressing my high appreciation of his Ophthalmoscopic Atlas, which I think cannot be surpassed.

The Eighth Congress of the German Surgical Society.—It is announced that the above Congress will meet at Berlin on April 16. The sittings will take place on April 16, in the hall of the University, from 12.30 to 4 p.m., and on April 17, 18, and 19, from 2 to 4 p.m. Demonstrations of patients and preparations will be held from 10 a.m. to 1 p.m. in the University Clinic and at the Charité Hospital. Objects for exhibition will be received at No. 7, Ziegelstrasse, Berlin, N., and the address of the office of the Society is "Berlin, N.W., 3, Roonstrasse." The President for the coming meeting is Professor Von Langenbeck.

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Medical Times and Gazette.

SATURDAY, APRIL 5, 1879.

THE GENERAL MEDICAL COUNCIL.

There is very little to be added to what we said last week about the doings of the Medical Council on Tuesday, the seventh day of the session. It will be remembered that after the very decisive vote of the Council against the principle of election of members of the Council by "the direct representation of the whole profession," Dr. Andrew Wood moved a resolution affirming that it is expedient that the Council should more largely represent the general body of registered practitioners, and that this object might be best attained by an increase in the number of the Crown nominees by four, who should not be members of the governing bodies of the medical authorities. Sir William Gull moved as an amendment to this a resolution declaring that, "if any change is to be made in the constitution of the Council," it seemed desirable that the Crown nominees should be persons selected by the Council, two names at least being submitted to the Crown for every vacancy. The debate on the amendment was adjourned to the Tuesday, and after considerable discussion, on that day, Sir William Gull withdrew his motion. It will be observed that Mr. Macnamara, in opposing the amendment, declared that the Council, as at present constituted, distinctly represents all that it ought to represent. "It numbers," he pointed out, "among its members four gentlemen selected from the body of general practitioners, and men who fairly represent them; there are others selected from the teachers and specialists of the profession; and, finally, there is a very distinguished selection of consultants, gentlemen who are constantly coming into contact with the general practitioners of the country, and who know their requirements and aspirations." On the withdrawal of Sir William Gull's motion, Mr. Macnamara, having the courage of his opinions, moved, as a second amendment, "That this Council, as at present constituted, fairly represents the profession at large," and Dr. Quain seconded it. Dr. Andrew Wood argued against this as being scarcely respectful to the profession outside, and it met with no support from the Council generally. Dr. Quain even requested to withdraw from it, and when it was put to the vote its proposer alone held up his hand in its favour. Mr. Simon and Sir James Paget then put the motion for the closure of the consideration of the report of the Executive Committee on the constitution of the Council. We gave a summary last week of the arguments employed in support of the motion, but, doubtless, the speeches now given at length in our columns will be gladly read by the profession. Mr. Simon's very able speech may be especially recommended to their notice; we do not agree in the whole of it, but it is well worthy of attention. And we, of course, agree with his remarks on the talk about representation and taxation. We observed, long ago, that the registration fee cannot fairly be called a tax; and that if it can, by any ingenuity, be represented as a tax, it is laid on those who register by Parliament, not by the Council. Mr. Simon tersely supported this view, and remarked that if the representation-and-taxation argument "means anything, it means that the profession ought to be directly represented in Parliament, because it is Parliament that taxes them, not the Council." Mr. Simon's amendment was carried; Dr. Pyle's amendment to it, which we reported last week, was lost; and then Mr. Simon's motion was carried as a substantive motion. The speech of the Rev. Dr. Haughton, in opposing Dr. Pyle's amendment, deserves special attention, because he dwelt on the danger of establishing a democratic form of election for every member of the Council except the six Crown nominees. He had no objection to a proportion of the Council being so elected, but he did object to three-fourths of it being elected by the rank and file of the profession, leaving the higher education and culture to be represented only by the Crown nominees. And if the Council adopted the plan of giving to every graduate of a university, or member or licentiate of any corporation, the right of voting for the representation of the university or corporation of which he was a graduate, member, or licentiate, the Council would soon be swamped by the members elected by the democratic vote, and the representatives of higher education would be dismissed from among them. Dr. Haughton's contention was carried perhaps rather too far, but it represents a danger that might really arise if the kind of alteration in the mode of electing the Council were to be carried out to the extent recommended in Dr. Pyle's motion.

It was afterwards decided that, "in fulfilment of the pledge given by the Council on July 3 last," a copy of the Council's resolution on direct representation, a copy of the resolutions and amendments moved on the subject of the constitution of the Council, be forwarded to the Lord President of the Privy Council, together with a copy of the Executive Committee's report on the constitution and working of the Council, with the appendix containing documents in regard to the Council. Thus ended the inquiry by the Council into its constitution; but as the meeting of the Council to fulfil its pledge of July last had been delayed till Government had decided to institute for itself an inquiry on the constitution of the Council, and as it seemed certain that no resolution respecting any change in its constitution, other than that against the "direct representation" of the profession at large, would be carried in the Council by such a majority as would carry any weight, it would have been only a waste of time and money to consider the rest of the Executive Committee's report.

On Wednesday, the last day of the session, the Council agreed to send, in reply to a communication from the Board of Trade in reference to the Weights and Measures Act, an answer which will be found at length in our report of the Council's proceedings. The object of the answer was, in

short, to support the recommendation of the Pharmaceutical Society, and to give the assent of the Council to two propositions—1. That the apothecaries' weight should be preserved; 2. That there should be a standard fixed by the Board of Trade of the apothecaries' ounce, drachm, scruple, and grain.

The memorials from ophthalmic surgeons, respecting the neglect of the study of ophthalmic surgery and medicine, and the importance of making ophthalmology form a distinct subject of examination, and from the Obstetrical Society of London, relative to the teaching of obstetric medicine, were received, and copies of them ordered to be transmitted to the licensing bodies named in Schedule (A) to the Medical Act, for observation and report to the Council.

The rest of the sitting was almost entirely occupied by dental business. The report of the Executive Committee on qualifications for registration under the Dentists Act was received, and adopted. The report gives the curriculum which the Committee recommend should be demanded of a student seeking a licence in dentistry from any of the authorities authorised to confer such, which curriculum is in effect that demanded by the English College of Surgeons. The Committee also recommended the Council to recognise, under Clause 10 of the Dentists Act, the certificates of the degree of Doctor of Dental Medicine granted by Harvard University, and of the degree of Doctor of Dental Surgery granted by the University of Michigan.

The Council sat for eight days, and what are the results of the session? Some necessary dental business was done, which occupied altogether perhaps three hours; a resolution recommending a new amendment of the Medical Bill as regards the registration of the holders of foreign or colonial degrees was agreed to on one day, and rescinded the next; and a resolution was passed against the adoption of the principle of election of members of the Council by the direct representation of the whole profession. Can it be fairly said that anything was done to justify any session of the Council at this time, much less a session of eight days? The Council was, in a special sense, on its trial, and it never showed to less advantage. The most persistent of its defenders and apologists must admit this, and we are sure that some at least of the members themselves felt it. But the time of the meeting was most unhappily chosen, and Mr. Simon's caustic remark that the Council had been called together two months too late for one purpose, and three months too early for another, was simply true. They had declared that the constitution of the Council needed revision, and had pledged themselves to an inquiry into the matter, the result of which should be reported to Government; and this inquiry had been delayed till the Government had taken the matter into its own hands; and as the battle of the Medical Bill will have to be fought in the House of Commons, it was but of very little use for the Council to discuss the Bill now. All these things were against the Council, and the consequence has been days of fighting over old questions, and of discussions ending in almost nothing.

THE ADULTERATION ACT.

JUDGMENT was given on Friday, March 28, in the Queen's Bench Division of the High Court of Justice, in the very important case of Hoyle v. Hitchman. The case had been sent to the Court by a magistrate in order to obtain a decision on a question which, it will be remembered, has for some time seriously interfered with the enforcement of the Adulteration Act, and the decision of the Higher Court has been looked for with much anxiety. In the Act of 1875, words were inserted which required that the sale of an adulterated article shall be "to the prejudice of the purchaser," and this, as Mr. Justice Lush remarked, "had given rise to a division of judicial opinion, which had, it was to be feared, very much crippled the operation of this most useful Act." The objection was first raised in Scotland, in the Supreme Court, where some of the judges held that the words referred to excluded cases in which the purchase was by a public officer. The majority did not accept that reading of the Act, but some of the judges were adverse to the prosecution on other grounds, so that the case was dismissed, and the public impression was that it had been dismissed on the ground that a purchase by a public officer could not be "to the prejudice of the purchaser." Then a mustard case came before the Queen's Bench, in which the same objection was made on the part of the defence; but it was also contended that it was very well known that mustard was not sold pure, but mixed with flour and other things, and therefore adulteration of that kind could not be "to the prejudice of the purchaser." One of the judges (Mr. Justice Lush) held that, as to the first objection, it was not material that the sale was to a public officer; but on the second point the Court sent the case down to be re-stated, and it never came again before the Court. Then in June, 1878, the case of Sandys v. Small was tried in the Court of Queen's Bench before the Lord Chief Justice and Mr. Justice Mellor. This was a case of a sale to an inspector of whisky alleged to have been adulterated with water, and the defence was that it was known to be so mixed, and therefore was not a sale "to the prejudice of the purchaser." The Court held that the objection was fatal to the prosecution; and no decision was given on the objection, also raised, that the purchaser was a public officer. But this objection was spoken to during the case, and it was pointed out that public officers did not purchase for consumption, and probably did not consume any part of what they purchased. The Lord Chief Justice was supposed to have said, in answer to this argument, "If the officer does not consume the article, how is he prejudiced?" it being admitted that in such cases the officers do not pay the price out of their own pockets. The case was really, as we have stated, decided on other grounds, but the impression on the minds of the magistracy was that the Court of Queen's Bench, as well as the Scotch Court, had held that the sale must be "to the prejudice of the purchaser" personally, and that if he neither paid for nor consumed the articles purchased it could not be said that he was "prejudiced"; and consequently magistrates declined to convict in cases—and they are the great majority—in which the purchaser is a public officer.

The present case was a case of sale of milk adulterated with water; and came first before Sir James Ingham, who found that, as a fact, the article bought was not of the nature of the article asked for. But he dismissed the case on the ground that it did not appear that the purchaser had been prejudiced, as the milk was not consumed, but analysed; and the inspector did not pay the price out of his own pocket, but it would be paid out of the rates; and he did not profess to have been personally prejudiced in any way.

The judges now both gave their judgments in favour of the prosecutor. Mr. Justice Lush's opinion we have already alluded to. He reads the words "to the prejudice of the purchaser" as identical with "to the prejudice of a purchaser"; the circumstances of the purchaser not being essential. Mr. Justice Mellor said that the only ground on which the case had been dismissed by the magistrate was that the purchaser was not "prejudiced" by the sale of the milk to him. "That gave rise to the question whether the 'prejudice' contemplated by the sixth section of the Act was a pecuniary prejudice." Such a view would absolutely nullify the beneficial effect of the Act. He pointed out that there was no direct decision in favour of such a view;

and indeed, in the English courts, there was hardly any authority on the point. He argued that the terms of the Act are quite general, and indeed very large, there being nothing to limit them. That in several of the sections provisions are made for purchases by public officers for the purpose of analysis and prosecution, assuming that, if the article sold is found to be adulterated, the offence will have been committed. "It would be strange indeed," he observed, "if all these provisions were to be made nugatory by a construction which would, in effect, come to this—that proceedings could only be taken by private individuals." In the case under consideration, no one could doubt that, had the prosecutor been a private individual, the offence would have been completed. What difference could it make as to the nature of the offence that the purchase was by an officer on behalf of the public, and furnished with public money for the purpose? The offence intended to be prevented by the Act was the fraudulent sale of articles adulterated by the admixture of foreign substances which would necessarily be "to the prejudice of the purchaser"; and those words were inserted only to require that such an adulteration should be shown to have been made. "He could not bring his mind," he said finally, "to the conclusion that in such a case the offence was less complete merely because the money with which the purchase was made was not the money of the purchaser, which must be wholly immaterial to the seller, and could not affect the offence he had committed." The conclusion was that the case was remitted to the magistrate to be determined on the evidence as to the offence alleged to have been committed.

The public are to be congratulated on the fact that as soon as the "prejudice of the purchaser's" objection came to be really tried in England, it collapsed; and plain common, and robust legal sense united in setting the Adulteration Act free from the serious obstruction that had been placed in its path. It is, however, anything but satisfactory to find that the working of a highly beneficial Act could be seriously hindered for months by what was really little more than a scarecrow, made up of the vaguely reported opinions of two or three Scotch judges, an imperfectly read decision of the Court of Queen's Bench, and a remark made, "not by way of a decided *dictum*, but rather by way of query or suggestion," by the Lord Chief Justice.

THE INFLUENCE OF CLIMATE ON PHTHISIS AND RHEUMATISM.

Dr. H. Peters, of Elster, Saxony, has published in the *Berliner Klin. Wochenschrift*, Nos. 2, 3, 1879, some very interesting and careful observations on the influence of the chief meteorological elements of climate on chronic diseases of the lungs, and on chronic rheumatism of the muscles and joints, made by himself in 1865 at Bad Ottenstein, Saxony, where a large number of phthisical and rheumatic patients passed the summer under his care. Ottenstein lies 1350 feet above the sea, and is sheltered on the north, east, and west by the mountains of Saxon Switzerland. The climatic elements of which notice was taken were (1) the temperature; (2) the relative humidity; (3) the barometric pressure; (4) the direction of the wind; (5) the quantity of ozone. And with regard to each of these the following data were utilised: (1) the daily mean; (2) the mean of each period of five days; (3) the daily difference between the maximum and minimum readings; (4) the mean of these differences for five days; (5) the daily maximum; (6) the daily minimum; (7 and 8) the means of both. The observations were made at 6 a.m., 2 p.m., and 10 p.m., but the wind was only observed twice daily, and the daily mean and the five days' mean were calculated according to a method described in the original.

The symptoms to which attention was directed in the phthisical and chest patients were (1) the onset of pains in the chest and back; (2) increased cough; (3) the occurrence of bloody sputa; and of (4) the well-known feeling of oppression, which most chest patients designate by the name of tightness (*Beklemmung*). No attempt was made to analyse separately the effect of weather on chronic disease of the substance of the lung and on simple chronic catarrh. In the case of the rheumatic patients the fact of increased pain was noted.

The number of chest cases observed was fifty-six, and of these thirty-five had chronic phthisis, all except one in the first and second stages; fourteen chronic bronchitis, and seven laryngeal catarrh. There were fifty cases of chronic muscular and articular rheumatism. The chest cases were under observation for seventy-six days, from May 17 to July 31, and the rheumatic 105 days, from May 9 to August 21.

The two sets of parallel observations were arranged in the form of curves, of which Dr. Peters gives a complete analysis in his paper. Photographs of the actual tables can be obtained by anyone interested in the subject from E. Tietze, Bad Elster, for 3s. Here we can only give a *resumé* of the main results. In chronic phthisis and chronic catarrhs of the respiratory organs, aggravation occurred on the colder days, and concurrently with a rapid fall in the mean daily temperature. It also occurred with a high atmospheric humidity, with a prevalence of northerly and westerly currents, and (contrary to the ordinary opinion) when ozone, or the substance giving the so-called "ozone reaction," was present in large amount in the air. The days on which no aggravation took place were those with low relative humidity a greatly diminished mean relative humidity, a prevalence of southerly currents, and a low percentage of "ozone."

In the cases of chronic rheumatism the patients got worse when the mean temperature fell considerably from one day to the next day or days, when the relative humidity and the amount of "ozone" were high, and the wind blew from a westerly direction. They were unaffected, on the other hand, on days of high mean temperature, with a low relative humidity and but little "ozone" in the air. With regard to barometric pressure, the only positive result made out in the chest cases was that in "the majority of the patients their disease was aggravated or much intensified on the days when the pressure was high." No positive conclusion, on the other hand, could be arrived at as to a connexion between aggravation of chronic rheumatism and pressure. On the whole, these observations appear to us in conformity with the general experience of clinical observers.

THE WEEK.

TOPICS OF THE DAY.

The annual meeting of the Medical Defence Association was held last week at the rooms of the Medical Society of London, Chandos-street, Cavendish-square, when Dr. Richardson, F.R.S., the President, delivered an address "On Phases of Modern Quackery and Medical Defence." The defence of scientific and legitimate medicine meant, he said, the defence of the sick, who, of all others, required protection, even from themselves and their own weaknesses and vacillations. He reviewed the work of the Association, and the facts which had been brought within its cognisance, and showed that at the present time there were in this country several classes of irregular practitioners in medicine with different kinds or degrees of culpability. The men who came under three of the groups—namely, the terrorists, the

nostrum-mongers, and the pretenders to special and baseless systems of cure—would best be met by a clause in the new Medical Act, which would not only prevent them from assuming titles that are misleading and false, but also from assuming false medical practice. The Bill now before Parliament would, it was believed, contain a clause bearing on the subject. He regretted much that legislation of any kind was necessary, and assumed that the happy day would some time come when the learned profession which existed only to correct or to try to remove the errors incident to the follies and ignorance of mankind would be no longer needed; meanwhile, it was essential that the trained and registered men should be protected, and that the public should also be protected from the pretences of those who had received no training at all, and existed only on sufferance. After showing that the granting of patents for medicines had two sides to it as a political question, and that more harm was often done by medicines which are not patented than by patented medicines, the President considered, finally, the subject of counter practice, suggesting that as the practice existed by necessity in some form or other, it would be best to legalise it by instituting an examination conjointly by the Apothecaries' Company and the Pharmaceutical Society, the passing of which examination should qualify men strictly for counter practice only, medical or surgical, as distinct from outdoor general practice.

Dr. Cameron has given notice of his intention to introduce a Bill into Parliament to enable a Scotch local authority to resolve upon enlarging or limiting the boundaries of any special drainage district or special water-supply district within its district, or upon conjoining two or more such districts or portions thereof. Before meeting to consider the propriety of any such proposed alteration of boundaries, the local authority would have to receive the requisition of at least ten of the inhabitants of the district, but upon receiving such a requisition they would be bound to hold a meeting. The decision of the local authority would be subject to review in the same way as resolutions for the formation of special districts are under the Scotch Public Health Act of 1867.

The adjourned meeting of delegates from the different metropolitan vestries, appointed to consider the best means of improving the present system of water-supply, was held last week in the Vestry Hall of St. Martin's-in-the-Fields. Some twenty-four vestries were represented, and Mr. Edward J. Watherston was called to the chair. In a speech of considerable length this gentleman pointed out the grounds which rendered it advisable, in his opinion, to bring about a change by placing the control of the London water-supply in the hands of one body responsible to the public. He showed how the enormous increase of the rateable value of metropolitan property at this date could never have been foreseen, or the present companies would never have been authorised to make their charges on such a basis, and he quoted figures to prove that in thirty parishes specified the values had risen more than 100 per cent. in the twenty years ending 1876. In conclusion, he held that the existing arrangements for supplying the metropolitan district with water were defective; that the defects were not merely of a temporary character, but were inherent to the system upon which such arrangements were based, so as to be permanently detrimental to the public interests; that it was absolutely necessary to remedy those defects in order to secure a better supply of pure and wholesome water, to be distributed under the constant system, and with such pressure and hydrants as would render it available at a moment's notice for the purpose of extinguishing fires; that this could only be accomplished under a system of unity of management; that from the economies possible under such a system such alterations as might be necessary in the house services should be made, not at private, but at public expense; and that in the absence of a municipal corporation, or of any representative body willing or competent to undertake the consolidation of the works, it was requisite that this should be accomplished by a special Water Commission, responsible to the Local Government Board. A resolution to the effect that the chairman's speech should be printed and circulated was carried after some discussion, in which such strong opposition was shown to the suggestion that the proposed Commission should be under the control of the Local Government Board, that the chairman consented to withdraw the obnoxious clause, and the resolution was then agreed to. At the close of the proceedings the meeting was again adjourned.

The *Sanitary Record* explains that the particular kind of furnace chosen by the Council of the Cremation Society of England was the Gorini pattern, adopted at the instance of their engineer and secretary, Mr. W. Eassie, who has studied the various systems in operation abroad. His theory is that, for a long time at least, the furnace should be independent of any supply of gas, and he therefore recommended a method of reduction which could be achieved by the poorest of wood fuel or by ordinary coal. Professor Gorini was employed personally to superintend the erection of this the first crematory, and the furnace portion is now entirely completed. The last experiment, made in the presence of several members of the Council, was with a portion of the carcase of a horse, and a piece weighing 140 pounds, which is about the average weight of adult humanity, was reduced to six pounds of the purest white ash in two hours, at an expense only of 3¼ cwt. of coal. There was no smell, no smoke given off by the chimney, and no heat perceptible even quite close to the crematory chamber itself. The success of this furnace in every respect was demonstrated.

A deputation, representing the London Vestries and District Boards, recently waited upon the President of the Local Government Board to ask that the duty thrown upon the various districts of London by the Sanitary Act of 1866, of providing hospitals for non-pauper patients afflicted with contagious fevers or with small-pox, might be relegated to the Metropolitan Asylums Board, and that patients of the non-pauper class so admitted should not be disfranchised for receiving poor relief in this shape. In reply, Mr. Sclater-Booth expressed his concurrence in the view that the stigma of pauperism should be removed from those who were compulsorily isolated in these asylums, but he reminded his hearers that those who were sent to the asylums were at present charged in part to the "Common Poor Fund" of the metropolis. There was no "Common Sanitary Fund" for London upon which the charge could be laid, but he proposed to introduce a Poor-law Amendment Bill after Easter, and he would see if a clause could not be introduced to give some relief in the difficulty.

The Adulteration of Food Act has, so to speak, been rehabilitated by the decision given last week by Justices Mellor and Lush in a case referred to the Superior Court, in which a magistrate had refused to convict on the ground that the inspector purchasing a quantity of milk for analysis had not been "prejudiced," although the article had been found to be of inferior quality. After hearing the arguments in the case, the judges took time to consider their judgment, and on Friday last week both gave judgment in favour of the prosecutor. The matter will be found referred to at length elsewhere in our columns.

Mr. Philip Cazenove, who, in consequence of ill-health, has resigned the chairmanship of the Committee of the Royal

Ophthalmic Hospital, Moorfields, has presented the sum of £1000 to the Hospital as a parting gift.

COMFORT FOR THE AFFLICTED.

It must be consoling to all who wear her Majesty's uniform in any and every quarter of the world to conjoin the following two small pieces of information:—Lord Dorchester the other night in the House of Lords complained, or rather asked a question, as to the number of medical officers sent to Ekowe with Colonel Pearson. Viscount Bury was equal to the occasion, and replied that not only were some Army surgeons sent, but also certain officers belonging to the naval forces, not to mention civilians, more of whom, moreover, were on their way to the front. What is to be said of all this? The complaint made, and not denied, was that the column in question was not supplied with the best qualified medical skill obtainable. They say it is the same in Afghan land. Take this with what follows. Here we have an expensive Army Medical School without Army Medical students. This training has been, and still is, judged to be of the first importance as regards the ultimate qualification of Army Medical Officers. Yet men are being sent out to look after troops in a part of the world where no one seems to know whether even the water is fit to drink, without the slightest training in the kind of chemical and microscopical investigation absolutely necessary to fulfil such duties:—

Army Medical School.—The thirty-eighth session of the Army Medical School was opened on Tuesday, the 1st inst., when the introductory address was delivered by Professor F. de Chaumont, M.D., who welcomed the new candidates for the Indian and Naval Medical Services, and expressed regret that the Army was still unrepresented, a state of things which it was hoped would not occur again. The present session is attended by fourteen candidates for the Indian and nine for the Naval Service, besides two officers of the Indian Service, one surgeon-major and one surgeon.

HARVEY TERCENTENARY MEMORIAL.

At a meeting of the sub-committee of the Harvey Tercentenary Fund, held on Monday last at the Royal College of Physicians, it was resolved that the commission for the statue of Harvey which is to be erected at Folkestone should be entrusted to Mr. A. Bruce Joy, who is the designer of the model marked "B," now being exhibited at the South Kensington Museum.

We cannot but think that the decision of the Committee will excite much surprise and disappointment in nearly all who have seen the competing designs for the Harvey Statue. For, unless our memory deceives us, the design marked B is, or seemed to us to be, almost a copy of the statue of Harvey under the portico of the Royal College of Physicians. It shows no originality of design, and no marked vigour of treatment. Both A and C appeared to be very preferable; and design C, especially, struck us as being markedly original in design, and spirited and lifelike in execution. Perhaps, however, cost had necessarily much to do with the decision of the Committee; and we should suppose that the design we think of as B would certainly be the cheapest to reproduce as a statue.

INFANT MORTALITY IN WORCESTER.

Dr. William Strange, Medical Officer of Health to the Urban Sanitary Authority of Worcester, has supplemented his annual report on the health of the city for the year 1878 by a special report on the causes and circumstances connected with the excessive infant mortality of the district. The vital statistics of the past year show that Worcester is an exceptionally healthy place for all except infants and young children, and the returns prove that the mortality amongst the latter is not due to any want of sanitary measures. Of the 845 deaths recorded during the past year, 367 were those of children under five years of age, giving a total ratio of 24·26 per 1000 of the population; and Dr. Strange argues that in a city like Worcester, in possession of a mild climate, and almost every known sanitary appliance for the preservation of health, the rate ought not to exceed that of all England and Wales, which was only 22·4 per 1000. The circumstances which most materially conduce to the excessive waste of infant life in Worcester are, Dr. Strange thinks, ignorance, neglect, and poverty on the part of the parents. As in other localities, the chief cause of the mortality is attributed to the lamentable want of knowledge exhibited in the feeding of infants and young children among the poorer classes; and the questionable practice of insuring the lives of infants is hinted at as being in many cases more likely to insure their deaths. The Health Officer requires, in fact, the assistance of ladies of the educated classes to instruct the uneducated in the first principles of the laws of health, and in the management of infants and their food, and Dr. Strange contemplates the formation of a ladies' sanitary association to assist him in his efforts to reduce the mortality amongst the children of Worcester.

THE HEALTH OF TORQUAY.

One very striking feature in the reports of the various medical officers of health, that from time to time we are called upon to notice, is the different degree of willingness and ability with which the necessary sanitary improvements are undertaken. From the annual report on the health of Torquay for the year 1878, compiled by Mr. Paul Q. Karkeek, the medical officer for the district, it is satisfactory to find that the authorities of this highly esteemed health-resort are apparently much in earnest in their endeavours to secure a high sanitary reputation. Thus, during the past year a new main drainage system has been completed, by means of which the sewage of the town now flows rapidly away, and is emptied into the sea at a spot far from any habitation, and where the strong currents of the Channel quickly disperse it. Active measures are also being taken to insure a thorough ventilation of the sewers, and a periodical flushing of them; and a site has been selected for a hospital for infectious diseases which is to be commenced forthwith. A disinfecting apparatus and a mortuary are also to be constructed as necessary adjuncts to this hospital, and the whole of these buildings are to be far enough away from the town to avoid any nuisance to their surroundings. The death-rate for the year, calculated in accordance with the returns of the last census, is given as about 18·6 per 1000, but, taking into consideration the natural increase of population, it is more correctly estimated as about 16 per 1000. Of the 401 deaths registered, no less than seventy-three occurred among visitors who were residing in the town for the sake of their health, and pauper vagrants in the workhouse.

CAVENDISH COLLEGE, CAMBRIDGE.

A public meeting was held on Monday, in the Egyptian Hall of the Mansion House, under the presidency of the Lord Mayor, in order to make more widely known the facilities provided by this College for those who may wish to obtain a university degree at a small cost and at an earlier period of life than is usual. The resolutions moved by the Marquis of Hartington and Canon Farrar were to the effect that a degree at one of the ancient national universities is an object to be aimed at by a larger circle of students than at present, both as an honourable standard of general

education and as a good preparation for most of the occupations and professions of life; and that Cavendish College deserves the support of the mercantile no less than of the professional classes. Mr. Hubbard, the Master of Trinity College, and Mr. Morley were among the speakers; and a letter was read from Professor Humphry, regretting his inability to attend, as he should have been glad of the opportunity to express his opinion of the advantages offered by the College to those who desire to obtain the degree in medicine, but are deterred from so doing by the time and expense incurred. Mr. J. Cox, a Fellow of Trinity College, is the Warden; and there are between thirty and forty students now resident in the College.

THE MAYO WINDOW IN WINCHESTER CATHEDRAL.

THE long array of "Martyr, and King, and Saintly Eremite, who now with solemn sheen imbue their prison bars" in the windows of Winchester Cathedral, have received the addition of a cluster of new figures filling one of the windows of the north aisle of the nave, overlooking the remarkable archaic font, and dedicated to the memory of the late Charles Mayo and his son Charles Mayo, M.D. The figures are selected as being suggestive of the history of the two persons commemorated. St. Cuthberga, who founded Wimborne Minster; St. Swithun, one of the Saxon Bishops of Winchester; St. Luke, the physician and evangelist; St. Cecilia, with her organ-pipes; and William of Wykeham, the illustrious founder of Winchester College,—will be held to be typical of the facts that the elder gentleman was educated at Wimborne Minster, and was for many years a practitioner at Winchester; while the younger was a Wykehamist, being educated at Winchester College, after which he became a Fellow of New College, Oxford, and a distinguished proficient in organ-building and architecture, as well as in military surgery.

THE Medical Act Amendment Bill was read a third time, and passed, in the House of Lords, on Monday, March 31.

THE *London Gazette* of Friday, March 28, announced that his Royal Highness the Duke of Connaught and Strathearne had been pleased, with the approval of her Majesty, to appoint Dr. Charles Murchison to be Physician in Ordinary to their Royal Highnesses the Duke and Duchess of Connaught and Strathearne.

MEDICAL PARLIAMENTARY AFFAIRS.

Intemperance.—In the House of Commons, the Chancellor of the Exchequer, in reply to Sir Wilfrid Lawson, said that the Government did not intend this session to propose any legislation based on the recommendations of the Lords' Committee on Intemperance.

Prison Medical Officers.—Sir H. Selwyn-Ibbetson said that a scheme for the remuneration of medical officers of prisons had been fixed by the Treasury upon the recommendation of the Irish Government, and would be payable from the date of the transfer of the prisons to the Government.

Disqualification by Medical Relief.—In the House of Lords, on Monday, March 31, Lord Aberdare said that, as he understood the Government were preparing to inquire into the whole subject, he would suggest that the order for going into Committee be deferred till after Easter. The motion was agreed to.

Army Medical Officers at the Cape.—Viscount Bury, in reply to Lord Dorchester's complaint about the inadequacy of the number of medical officers accompanying Colonel Pearson's column in South Africa, said that all the surgeons asked for had been sent, and that there were now quartered with this column medical officers to each battalion and to the native contingent. Respecting the complaint of the youth and want of experience of attendants belonging to the Army Hospital Corps, he said that several trained men and sick-bearers had been sent out with the reinforcements, quite sufficient for all prospective requirements.

The Plague.—In the House of Commons, Lord George Hamilton, in reply to Mr. Gourley, said that all vessels arriving from certain scheduled ports were carefully inspected by efficient sanitary officers on their arrival in this country. If their papers were correct, and there was no evidence of any contagious disease among those on board, the ship was released from temporary quarantine and a clean bill of health given.

Pauper Lunatics.—Mr. Rodwell moved the second reading of this Bill in the House of Commons on Tuesday, April 1. At present the counties in England were under peremptory orders to provide increased accommodation for the insane poor. The Lunacy Commissioners are compelled to treat all whose minds are seriously affected as lunatics, and our asylums are crowded with imbecile patients with no hope of recovery and requiring but little attendance. It was proposed in the present Bill to remove such cases from asylums to infirmaries. The local rates would thereby be diminished, and the curable patients would be much more likely to recover if separated from the society of the incurable. The county would provide for the necessary buildings, and the parishes be responsible for maintenance and medical attendance. They should be under the control of the Local Government Board. Mr. Salt, on behalf of the Government, said that, according to present arrangements, there were two systems for providing for the insane and imbecile poor. Imbecile paupers might now be kept in workhouses, under the Local Government Board supervision. There were many points in the Bill requiring amendment; but, as he considered the general principles were good, he could not oppose the second reading if the measure were referred to a Select Committee with large powers; and this was consented to, and the Bill read a second time.

FROM ABROAD.

DOCTORS ELECTED BY DOCTORS.

THE wholesale displacement of the holders of office which has been so frequently witnessed in France of late in political life, has just been extended in Paris to a body of medical officers, without any reason having been publicly assigned, beyond the statement that a different mode of appointment was deemed desirable by those in authority. The medical officers of the Bureaux de Bienfaisance, upon whom devolves the duty of visiting the sick poor at their own homes, were startled by the sudden appearance of placards at all the mairies of the twenty arrondissements, announcing that their posts were vacant, and would be filled up in fourteen days by a new mode of election. At first it was believed that this notice referred to vacancies caused by deaths or resignations, but it soon appeared that a sweeping measure constituting a *tabula rasa* was intended; and in this way a great number of the officials of the Assistance Publique, without any alleged objections to their mode of fulfilling their duties, were cast off, after, in many instances, long and tried services. The entire number of these medical officers is 220, having salaries varying from 600 to 1000 francs, according to the size of their districts. The Préfet de la Seine, who, with the sanction of the Minister of the Interior, seems to have the power of committing this act of injustice, in the preamble of his decree announcing its immediate application states that he is only carrying out a provision of the law for organising the Assistance Publique passed in 1849. By this it was decreed that these officers should, in future, be chosen either by *concours* or by votes of the medical men residing in the respective arrondissements. This provision, like many others of that troubled period, had remained a dead letter for twenty years; but that restless body, the Paris Municipal Council, having called the attention of the Préfet to its potential existence, he resolved to put it into execution. As election by *concours* did not seem practicable, he determined that an electoral body should be formed of the medical practitioners who had resided in their respective arrondissements for a year; and that any doctor of medicine, twenty-five years of age, also

residing in the arrondissements, may become a candidate therein. If successful, he holds his post for four years only.

This decree has, we are glad to say, excited something like a storm of indignation among the profession in Paris; for it is felt that whether the new system of election be likely to prove a good one or not, the wholesale and sudden eviction of the present occupiers of these posts, without any fault alleged against em and without compensation, is a procedure which is at once tyrannical and revolutionary. We have not heard the precise results of the elections; but, as was generally expected, under the generous sympathy manifested, the present holders of these posts have been re-elected in most arrondissements by large majorities.

Professor Gaillard Thomas on Vaginismus.

Prof. Thomas, lecturing on a case of vaginismus (*Philad. Med. Times*, February 1), which during eleven years had rendered coitus impossible, observed that the treatment of these cases, which are of frequent occurrence, is so satisfactory that he would be willing to guarantee this woman's cure within six weeks or two months. The *dysparcunia* was her sole symptom, attempts at coition, as well as examination by the finger, giving rise to the severest pain and intense hysterical excitement. At the examination, a distinct and perfect hymen was observed, and as soon as this was touched the patient lifted her pelvis from the table and complained of the most intense pain; and on the attempt being made to pass the finger on between the upper part of the vagina and the hymen, all the muscles contracted spasmodically upon it, and the sufferings became so excruciating that it had to be withdrawn.

This condition, first described by Burns, has been of late brought into prominent notice by Marion Sims, under the name of vaginismus or vaginal spasm, which perfectly describes its nature—so that if ether had been administered there would have been no difficulty in passing the finger to the cervix uteri. In these cases the hymen is usually persistent or nearly so, and the whole difficulty arises from one of two conditions, or both—a very small entrance to the vagina, and a persistently hyperæmic condition of the hymen and surrounding parts.

"The affection, as I said before, is entirely curable. The treatment is as follows:—First, the patient is thoroughly anæsthetised with ether, and then each labium is held back by an assistant. The hymen should be seized with a mouse-toothed forceps, and snipped completely out with scissors, which are preferable to the knife. Some will tell you that there is great danger of hæmorrhage from this procedure; but so there is great danger of it in amputating a finger if you do not take precautions to prevent or stop it. Hæmorrhage can only come from carelessness on the part of the operator. To stop bleeding the sponge is all that is usually necessary; but if a little vessel spouts, tie it. Any oozing that may follow the cutting will be stopped by a contrivance which I shall presently mention. Next, it is necessary to cut down, and make the entrance of the vagina somewhat larger; and while this is being done with a bistoury, the assistants stretch the vagina on either side. The incisions are made into the perineal body, but not through any muscle; and three of them are usually necessary—one in the median line, and one on either side. Lastly, one of Sims' glass plugs is to be pushed into the vagina. It is best to hold the plug in place by means of a broad strip of adhesive plaster passing from the lower part of the back over the perineum, and up to the abdomen, having a hole cut in it for the passage of the catheter. This retains the plug much more securely than any T bandage could do; and it is usually a very difficult undertaking to put the plug back when it has once slipped out. The plug effectually puts an end to all hæmorrhage, and should be left in position for three or four days before being disturbed. At the end of that time it should be taken out, so as to permit the vagina to be thoroughly syringed with warm water, and then replaced. In a week's time the patient will be able to remove it and put it back herself; and it ought to be worn pretty constantly for two or three weeks. By that time it need only be worn at night; and in the course of a month or six weeks it may be dispensed with altogether. After a considerable experience with this operation, I may say, in conclusion, that I have yet to meet with a case accompanied with hæmorrhage, and have yet to meet with a case which was not cured by it."

REVIEWS.

Étude sur les Invaginations Intestinales Chroniques. Par le Dr. G. Rafinesque, ancien Interne des Hopitaux, etc. Accompagnée de Tableaux Statistiques et d'une Planche lithographiée. Paris: J. B. Baillière et Fils. 1878.

A Study of Chronic Invaginations of the Bowel. By Dr. F. G. Rafinesque, formerly resident in the Paris Hospitals, etc. With Tables of Statistics and a Lithographed Plate. Paris: J. B. Baillière et Fils. 1878.

This is an extremely valuable co-ordination and analysis of facts, valuable not only as putting in a clear light a very obscure disease, but also as proving that this chronic invagination of the intestine is constantly mistaken for other diseased conditions, so that its rational treatment has seldom been possible. In this short notice, therefore, we shall mainly confine ourselves to reproducing the results of Dr. Rafinesque's labours on the subject of its diagnosis, with the view of exciting interest in the subject, so that fewer errors may be made in future.

Chronic invagination of the bowel is *not* of rare occurrence. It may be defined as "an intussusception in which the phenomena of strangulation are of late appearance, incomplete, slightly marked, or altogether absent."

Now, of fifty-six such cases in which either "a post-mortem examination, a gastrotomy, or a spontaneous elimination" left not the slightest doubt what the real state of affairs was, an accurate diagnosis was made only *ten* times. In seventeen cases no diagnosis appears even to have been hazarded, in two others there was nothing to guide the observers to a suspicion of the true condition, and in the remaining twenty-seven all the guesses made were wrong, and, indeed, sometimes several wrong guesses were made in the same case. Here are some of the "shots" which missed the mark:—"Worms," "simple prolapse of the rectum," "cancer of the intestine," "chronic dysentery," each three cases; "fæcal tumour," "some kind of intestinal obstruction," "malignant visceral disease," two cases each; "cancer of the stomach," "cancer of the uterus," "ulcer of the stomach," "peritonitis," "tubercular peritonitis," one case each. These examples will suffice to prove the chameleon-like character of the disease, or, at any rate, how differently different doctors were impressed by its symptoms.

And yet the opinion of Dr. Rafinesque agrees with that held by several authors who have paid much attention to intestinal intussusception, namely, that "in many cases, perhaps even in the majority, the disease can be and ought to be recognised." The means of accurately diagnosing it are contained in the work before us, which we earnestly recommend to the study of our surgical readers. If we can make sure of the nature of the disease, can we treat it with a hope of success? The mortality of "Nature," if left to herself, is about 96 per cent. The introduction of gastrotomy—or laparotomy, as it is preferable to call the operation—has lowered the mortality in the few cases where it has been employed to 91 per cent. May we not expect that, now the antiseptic method (which, by the way, Dr. Rafinesque does not allude to) has robbed the opening of the peritoneal cavity of so large a part of its terrors, an exploratory incision will in future often not only *faser le diagnostic*, but save the patient? At all events, if insufflation, manipulation under chloroform, and copious injections of liquids into the large intestine, fail, "la gastrotomie restera la seule ressource." "This operation," concludes our author, "is justified by logical reasoning, by the remarkable results of a similar operation, namely, ovariotomy, and lastly, by the statistics of the cases where it has been tried."

The Plague as it concerns England, from Official and other Sources. London: Hardwicke and Bogue, 192, Piccadilly. 1879.

This pamphlet has avowedly been published with the view of giving confidence to the public, in the face of the present outbreak of disease in Russia, by convincing them that the Government has not been unmindful of its grave responsibilities in the matter, and to allay any apprehensions which may be felt as to the introduction of plague into this country. With this view the various official papers bearing upon the subject have been largely drawn upon in its compilation;

and reference has also been made to the writings of Dr. Gavin Milroy, and Mr. Netten Radcliffe, who are rightly described as amongst the most eminent authorities of the present day upon all particulars relating to epidemic diseases.

GENERAL CORRESPONDENCE.

"EGYPTIAN CRANIA."

[To the Editor of the Medical Times and Gazette.]

SIR,—Many of your readers will no doubt feel for the disappointment of Mr. Tuke, when his search for Egyptian skulls was forcibly put an end to in the manner described in his amusing letter of last week; but every ethnologist and antiquarian must acknowledge the justice of the regulations enforced by the Egyptian Government. Egypt and its antiquities are like records in a state of decay which must be treated in an orderly and reverent way, for, once destroyed or disjointed, they can never be replaced. Deplorable are the ravages which have been caused by the random and reckless diggings of English and other travellers in search of curiosities, and in the disorderly dispersion of precious relics over the public museums and private collections in Europe and America. On the other hand, look at the grand results obtained by Mariette Bey, fortified with the authority of the Egyptian Government, to prevent the unauthorised exploration of tombs, and exportation of treasures and relics. The magnificent museum at Boulaq has been constructed by Mariette on principles opposed to the irregular and random researches of travellers. The place where each object was found, the date, and its place in the series of Egyptian history, are all minutely recorded. In fact, compare the Hunterian Museum with the random collections of anatomical curiosities that used to be paraded about at country fairs, and you will have some idea of the difference between the treatment of antiquities under the Kadive and that pursued by amateur wanderers heretofore.

I am, &c., A WANDERER.

THE EVIDENCE OF MEDICAL OFEICERS OF PUBLIC CHARITIES AT CORONERS' INQUESTS.

LETTER FROM MR. R. HARRISON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I see that in Mr. Secretary Cross's Bill "to consolidate and amend the law relating to Coroners," it is proposed to continue what I have always considered to be a flagrant injustice, viz., requiring medical officers of public charities to give evidence at inquests without fee. The Clause (30) is as follows:—"When an inquest is held on the body of a person who has died in a county or other lunatic asylum, or in a public hospital, infirmary, or other medical institution, or in a building or place belonging thereto, or used for the reception of the patients thereof, whether the same be supported by endowments or by voluntary subscriptions, the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution as aforesaid shall not be entitled to such fee or remuneration." This, I take it, includes any of the duties for which payment of fees is by a previous clause provided, viz., giving evidence, making a post-mortem examination or an analysis. I have been connected with public charities sufficiently long to see the unfairness of such legislation; and I think that, before the new Bill becomes law, an effort should be made to secure for those whom the Act principally affects —viz., the junior members of the profession—the consideration due to them for the very important services they render, not to the charity to which they may be attached, but to the public at large, and for which the public ought to pay.

I am, &c., REGINALD HARRISON,
March 24. Surgeon to the Liverpool Royal Infirmary.

THE commons which have been dealt with under the Metropolitan Commons Act are nine in number, and comprise a total of 1210 acres. They consist of Hayes Common, Blackheath, Shepherd's-bush, Hackney, Tooting, Barnes, Clapham, Ealing, and Bostall Heath.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 5.

W. S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

PESSARIES.

DR. GALABIN showed a Greenhalgh's pessary which he had removed with great difficulty from the vagina, where it had been for upwards of four years. The indiarubber had worn away from one of the points, and the metal, resembling a gigantic fish-hook, had embedded itself in the vaginal wall. Any attempt at direct extraction only buried it more deeply. The pessary had to be removed under ether by a kind of evolution, the embedded end being extracted last.

The PRESIDENT showed another form of pessary—an intra-uterine stem connected with a metal framework attached externally. This had been removed from a woman who had worn it for five years and a half. It appeared to have caused no injury.

Remarks were made by Drs. Aveling, Hicks, Godson, Edis, and Barnes.

DEATH FROM INJECTION OF PERCHLORIDE OF IRON WITHIN THE UTERUS.

Dr. CORY showed the uterus and appendages of a woman aged forty, who died in St. Thomas's Hospital. She had been admitted on account of uterine hæmorrhage, from which she had suffered for ten weeks since the expulsion of a vesicular mole. A fortnight after admission she had such a severe attack of bleeding that the resident accoucheur injected, by means of a Higginson's syringe, a solution of perchloride of iron through a long tube which entered the uterus through a considerably dilated cervix. The woman became suddenly collapsed, and died almost before the tube could be removed. At the post-mortem examination a small quantity of darkish fluid was found in the recto-vaginal pouch; this contained a large amount of iron. A portion of vesicular mole still remained attached to the uterine wall. The fluid appeared to have entered the peritoneal cavity through the left Fallopian tube.

Dr. BRAXTON HICKS remarked that probably the astringent action of the injection had caused the os uteri and the cervix to contract on the pipe, preventing the exit of a portion of the solution; this being so, the patency of the cervical canal cannot be relied on alone.

Dr. BARNES called attention to a mode he had before brought under the notice of the Society, of applying perchloride of iron to cases like this by swabbing, or by using a tube perforated at the end containing sponges saturated with the styptic solution, which oozed out under the pressure of a piston. In Dr. Cory's case there was evidence of shock. That the mere contact of iron solution with the peritoneum was not necessarily fatal or dangerous, was certain. He had on more than one occasion swabbed large surfaces of the peritoneum to restrain hæmorrhage from adhesions during ovariotomy, the patients recovering.

Dr. JOHN BRUNTON suggested the use of a canula for injecting, made after the manner of the double male catheter in common use, thereby permitting the solution to escape.

Dr. AVELING said that such an apparatus would be useless, as the clots would stop up the outlet.

Dr. EDIS was of the same opinion, and said that an instrument of this kind had been tried.

PYOMETRA.

Dr. MATTHEWS DUNCAN exhibited two specimens of pyometra. The first was from an old woman who died in great suffering, supposed to arise entirely from the cancer of the neck of the womb with which she was afflicted. After death, besides the medullary cancer of the neck and adjoining parts, there was found a uterus dilated so as to have a globular cavity of about two inches in diameter, enclosed by a wall of about a line in thickness. This wall was lined internally with a pyogenic membrane, and enclosed a thin purulent fluid. There was acquired atresia of the cervix. The second specimen was from a sterile woman aged sixty, who had been married fourteen years. Nearly three years before her death she began to have a copious, thin, purulent,

and occasionally blood-stained discharge, which proceeded from the interior of the uterus, and which never ceased. She suffered daily intense pain of a spasmodic character. The disease was regarded during life as one of intra-uterine ulceration, probably malignant. The specimen had been minutely examined by Dr. Ormerod, whose report was appended. It presented no character of a cancerous nature.

Unilateral Uterus, and Kidney (Solitary) with Two Ureters.

Dr. Braxton Hicks showed, for Dr. F. Ogston, jun., the dissection of a specimen of the above. The right half only of the uterus was developed, the left half, left Fallopian tube, left ovary, and left broad ligament being wanting. The right kidney had two ureters, the lower one running the usual course to the right side of the bladder, the upper one springing from a cyst with partly bony walls, and terminating on the left side of the bladder. There was no trace of a left kidney.

Polypus of the Bladder.

Dr. Godson showed a polypus which he had recently removed from a woman aged sixty, who was under his care in St. Bartholomew's Hospital. He first saw her a year ago, when she complained of bleeding from the vagina. The uterus and vagina were found healthy. There had been no recurrence of the hæmorrhage until a week since, when the patient again presented herself. On examination, a tumour, the size of a walnut, was found at the orifice of the vagina; It had at first sight the aspect of a firm fibrinous clot; it was discovered, however, to protrude from the urethra, and to be connected by a narrow pedicle with the fundus of the bladder, which organ it partially inverted. Dr. Godson applied a catgut ligature, and separated it with scissors. A microscopical examination showed it to consist of fibro-cellular tissue, with a few muscular fibres covered over with mucous membrane. Such polypi were of extreme rarity, and it was fortunate that the subject of it was a woman.

Malformed Fœtus.

Dr. H. S. Wilson described a dissection he had made of a stillborn fœtus at full term, the external generative organs of which had the female arrangements modified into an approach to the male type. The uterus was found to be bicorned. There were no kidneys nor ureters; the regions of the kidneys were occupied each by a large oval-shaped supra-renal body. There were other peculiarities besides those connected with the genito-urinary organs, which were fully described.

Monster.

Dr. R. H. A. Schofield exhibited a drawing, and described a malformed fœtus which had been born at the lying-in hospital in Prague. The head was quite sessile on the trunk, no cranial bones could be felt, but the facial bones were fairly developed. One large irregular opening represented nose and mouth. There appeared to be only one eye. No trace of external ears or upper extremities. The monster was one of twins, the other fœtus being quite healthy.

Fatal Embolism after Delivery.

Dr. George Roper contributed the notes of the case of a patient under his care who was attacked on the third day after her fifth confinement by a severe pain in the right side of her chest. This soon subsided, and she was quite well until the twelfth day, when she was suddenly seized with difficulty of breathing, which became more and more severe until the expiration of a week, when she died. No morbid cardiac sounds could be detected at any period of the illness, and no physical signs of pulmonary disease till within three days of her death. No pelvic mischief could be detected. At the post-mortem examination the left fimbriated extremity of the Fallopian tube was found adherent to the uterus by recent inflammatory product, while the veins of the right broad ligament, and the plexus of veins surrounding the cervix and lower portion of the uterus were plugged with clotted blood. There was severe perihepatitis, the liver being adherent to the diaphragm. The left pleural cavity was full of fluid. There was a pulmonary embolism, which appeared to have been dislodged from a clot which occupied the right auricle, which probably had found its way there from some distant vein, the primary cause being septicæmia.

Abortion followed by Septicæmia and Fatal Cardiac Thrombosis.

Mr. J. T. Musgrave narrated a case of this occurring in a woman aged thirty-two, who had had four children. The abortion occurred at the third month, coming away in fragments, a fetid discharge resulting. A fortnight after, rigors set in with high temperature and diarrhœa. From this condition she greatly improved, but on the tenth day, on being raised in bed, she complained of sudden violent pain in the chest, followed by dyspnœa, from which she never rallied, but died the following day. No autopsy was made.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 11.

Mr. John Eric Erichsen, F.R.C.S., President, in the Chair.

After a few courteous words of thanks from Mr. Erichsen, the new President, a paper was read.

Remarks on One Hundred and Fifty Operations for Extraction of Cataract.

Mr. Charles Higgens read this paper, which was accompanied by a printed table in which were set down the sex and age of the patient, right or left eye, form of cataract, kind of operation, results, and remarks. The results were collected under three heads—successful, partially successful, and failures. Under the first head were 115, 76·6 per cent.; under the second twenty-four, 16 per cent.; under the third eleven, 7·3 per cent.; so that in 92·6 per cent. of the cases the sight was improved by the operation, in 7·3 no improvement took place, or sight was worse than before. Three methods of operating were described—extraction by small flap; by linear section; by oblique corneal section. One hundred and four cataracts were extracted by the first method, twenty-five by the second, and twenty-one by the third. The advantages and disadvantages of the various methods were briefly alluded to. Iridectomy at the time of extraction, or as a preliminary some time previously, was strongly recommended. The relative advantages of upward and downward section were mentioned. The after-treatment was given.

Mr. Macnamara said that he was wont to trust in these cases as regards prognosis to the power of dilatation possessed by the pupil under the influence of atropine. If it acted properly the prognosis was good. He never relied on iridectomy in extraction, the chief thing being to remove the entire lens by gentle means without dragging or tearing. Iritis was not common when no iridectomy had been performed, whilst the operation had manifest disadvantages.

Mr. Hulke remarked that many points were touched on in the paper; but what especially struck him was the wide departure from the ordinary line of treatment adopted in the cases of cataract in young people. In them some plan of softening was usually employed with excellent results. Why had it here been departed from?

Mr. S. Watson alluded to a method of lacerating the capsule before making the corneal section. The laceration was not easy after, and there was a risk of displacing the lens into the vitreous. He had tried this plan in about twenty-four cases. He generally did iridectomy before extraction—sometimes weeks before.

Mr. Higgens, in reply, said he thought that the whole lens should be removed. The flap operation was the best where the cataract was ripe. Some of the operations on young people were experimental.

Recovery after Evacuation of a Traumatic Abscess in Brain by Trephining and Incision.

Mr. J. W. Hulke gave particulars of this case. An errand-boy, striking his forehead against a fence, grazed it, and was momentarily stunned. He continued to work for seven weeks, during which time he had more or less pain in forehead; then retching and hemiplegia supervened. The frontal bone was trephined at the seat of injury: a small fissure was recognised in its outer table; the dura mater seemed healthy. An aspirator trocar being pushed into the brain, pus rose into the syringe; the abscess was opened

through the membranes with a knife, and a quantity of pus let out. The patient recovered, but lost the sight of both eyes by optic neuritis. The value of hemiplegia as significant of disease in the brain rather than of arachnitis was insisted on.

Mr. Bryant said that in the case just recorded the injuries were purely local; there was no bruising of parts, and a good result was therefore probable. Good results were rare where the injury was diffuse. He considered it courageous on the part of Mr. Hulke to go deep after exposing the dura mater; but the result was encouraging.

Mr. Holmes mentioned a case of his own of apparently a similar kind, which showed the difficulty of making a diagnosis, especially after a long time had elapsed. A man jumping into the water struck his head against a barge, but was able to go on with his work. By-and-by, however, there supervened fits and paralysis, so that the patient could not walk. The bone on the forehead was laid bare, and the outer table was found loose. Nothing further was done; but the man got worse. There was loss of power over the bladder, with some cystitis, and the hemiplegia got worse. He was tempted to trephine, but the symptoms began to mend and continued to do so. He is now very much better, and improving daily. In this case nearly a year had elapsed since the injury, and there was moreover a history of syphilis. In such cases fallacies might easily mislead. On the whole he thought the more superficial the injury, the earlier the symptoms.

Mr. Barwell mentioned the case of a gentleman who had received a blow on the head which was followed by right hemiplegia. The wound was opened, and no injury to the bone was found; but after death a small abscess was found in the brain beneath.

Mr. Morrant Baker said that Mr. Holden had recorded in *St. Bartholomew's Hospital Reports* a case similar to that of Mr. Hulke.

Mr. Hulke said he had often feared to empty cavities with the aspirator, so here he used its needle as a guide and cut with the knife. Here it was mainly used for diagnostic purposes.

CLINICAL SOCIETY OF LONDON.

Friday, March 14.

Dr. Bristowe in the Chair.

Disease of the Skull in a Child, with Congenital Syphilis.

Dr. Bridges showed a case similar to one described by M. Parrot, which was brought before the notice of the last meeting of the Pathological Society by Dr. Barlow. There was a considerable ridge on each side of the sagittal suture, and a prominence of both parietal eminences.

Sclerodermia.

Dr. R. Crocker showed a patient suffering from sclerodermia. The child had been exhibited at a former meeting of the Society. She was now far advanced towards recovery.

Case of Fetid Pyo-Pneumothorax: Tapping, followed by Great Benefit.

Dr. Theodore Williams read notes of the case of a gentleman, aged twenty-eight, who had had pleurisy of both sides, causing partial adhesions of both pleurae, and shrinking of the right side of the chest. Four years and a half later he had catarrhal pneumonia of the left lung, ending in excavation at the apex, and tolerable quiescence; but at Cannes, in December, 1877, his cough and expectoration increased, inducing vomiting; and the sputum was so offensive as to cause loss of appetite and diarrhœa, not only in the patient himself, but also in his attendants. For several months he suffered from pyrexia, great loss of flesh and strength, and from symptoms of septicæmia, chiefly induced by the offensive atmosphere in which he lived, which various antiseptics palliated but failed to purify. Dr. Marcet detected large quantities of lung tissue in the expectoration, and found proofs of an abscess of considerable size discharging through the left bronchus. The symptoms continued, and the patient came to London, where, in June, 1878, Dr. Andrew Clark and Dr. Theodore Williams concluded, from the physical signs and the character of the expectoration, that, in addition to some cavities in the upper lobe, there existed either (1) a limited pyo-pneumothorax, or (2) a large superficial cavity in the lower lobe, the pleura being adherent; and from the loudness of the cavernous sounds, their limited area, and the large quantity of lung tissue found, they considered the latter supposition the most probable. In either case tapping was recommended, and on June 18 Mr. Erichsen punctured the dense wall of the abscess between the sixth and seventh ribs, and evacuated a pint of fetid pus. The operation, though it gave rise to temporary but somewhat troublesome cutaneous emphysema, afforded entire relief to the patient. The cough was reduced, and the expectoration fell to two ounces in amount. All fetor ceased, and with it all symptoms of septicæmia, including a fall in temperature, pulse, and respiration. The discharge from the drainage-tube was small and inoffensive, and neither in it nor in the sputum could any traces of lung disintegration be found after the operation. The patient, who had extensive disease of the lungs, recovered sufficiently to drive out daily, and died, seven months after the operation, of thrombosis of the left pulmonary artery. Post-mortem examination revealed a circumscribed pyo-pneumothorax on the left side, limited by very dense adhesions. The sac communicated by two openings, each of such size that the lung tissue exposed actually formed part of the wall of the pneumothorax. The upper lobe contained two large cavities, communicating by a bronchus, the upper one opening into the pleura. The right lung showed partial adhesions, some old consolidation, and fresh tubercle at the apex. Dr. Williams remarked that the limited form of the empyema had been caused by the successive attacks of pleurisy, and the pneumothorax arose from the pleural abscess bursting into the upper cavity, and thus discharging through the bronchus. Owing to the fistula being too small to admit free discharge, matter was retained, became fetid, and gave rise to septic symptoms and further ulcerative processes in the lung; these continued till the operation, which entirely changed the aspect of affairs, and converted an acute ulcerative empyema into chronic pneumothorax, adding several months to the patient's life. The difficulty of diagnosis lay in (1) the limited character of the pyo-pneumothorax, (2) the loudness of the cavernous sounds, this being due partly to the large size of the pulmonary fistula and partly to the conduction of sounds from the lower cavity, and (3) the character of the sputum, which was by no means simply purulent, but contained a quantity of lung tissue.

Gangrene of the Lung treated by Incision.

Dr. Cayley read notes of this case. The patient, a man aged forty, was admitted into the Middlesex Hospital on December 30, 1878. He had been ill five weeks with cough, spitting, and pain in the chest. During the last fourteen days his breath and expectoration had been fetid. On admission he was in a condition of extreme prostration and emaciation, with great dyspnœa and painful cough; with much difficulty he expectorated small quantities of horribly offensive brownish mucus. His breath had a similar odour. The physical signs were those of consolidation of the left base, but there were no distinct indications of a vomica, as bubbling crepitation or cavernous or aphonic breathing. The absence of these signs was probably due to the cavity being full, and to its not communicating freely with the bronchus. An exploratory puncture was made with a fine trocar and canula, and a few drops of pus with the same gangrenous odour as the expectoration were drawn off. The patient was now put under the influence of a mixture of ether and chloroform, and Mr. Lawson made an incision in the ninth intercostal space in a line with the angle of the scapula, three inches in length, and continued it till the cavity in the lung was reached. A gush of about five ounces of horribly fetid pus then took place, and with the pus several fragments of gangrenous lung tissue, the size of the end of a finger, came through the opening. A large-sized drainage tube was introduced, and the cavity washed out twice daily with diluted Condy's fluid. The operation gave the patient great relief. He ceased to cough and to expectorate fetid mucus, his breath lost the gangrenous odour, and the temperature, which before the operation had been very high, fell to normal. He did not, however, rally from the state of prostration, but gradually sank, and died on January 4—the operation having been performed on December 30. For the first two days, fragments of gangrenous lung were discharged when

the cavity was irrigated. On post-mortem examination, the lower lobe of the lung was found consolidated by pneumonia, and firmly adherent to the chest wall. In its interior was a large irregular cavity, with ragged, in parts gangrenous, walls. Where most superficial, it was upwards of an inch beneath the surface of the lung. There was a small obsolete tubercular cavity, and some puckered fibrous nodules in the apex of the right lung; and the kidneys were granular; the urine, however, had not contained albumen. In this case the patient was so much reduced when he came under treatment that little hope of a successful result could be entertained. The operation, however, which was unattended either by danger or difficulty, gave complete relief to his most distressing symptoms, and by evacuating a quantity of putrefying matters which were pent up in the lung, and causing septicæmia, gave the only chance of recovery; and possibly, had it been performed earlier, the sloughing portions of lung might have become completely detached, and the patient have rallied.

Dr. J. E. Pollock asked how long Dr. Cayley's patient had lived after the operation. [It was answered that five days elapsed before death took place.] The points of interest in these cases were—first, the question of diagnosis before the operation; secondly, the eligibility of each operation. In Dr. Williams's case the difficulty was to decide whether the case was one of pneumothorax, or one of a cavity with thin walls. This was always a difficult question. It turned out that the patient was suffering from the former, yet, at the time of operation, Mr. Erichsen thought that he had passed through the lung before reaching the pus. He thought that if the dulness shifted with the position of the patient, this was a valuable sign of pneumothorax. He could not remember any case where a cavity was so large that the physical signs varied much after alteration of the patient's position or after a profuse expectoration. After all, the question of diagnosis was, perhaps, not of vital importance. He thought that cavities in the apex, where there was a good communication with the bronchus, were certainly not suitable for operation; but where the cavity was low down, with a small internal opening, and much decomposition, it should be treated by incision or by tapping. Dr. Cayley was to be congratulated on his boldness in carrying out the only method of treatment that was likely to prove successful.

Mr. Maunder had listened with much pleasure to the cases brought forward that night. He had for some time been of opinion that no matter what the exact position of these fetid cavities might be, they should be treated by incision, just like abscesses in other parts. As soon as a free opening was established, decomposition was checked.

Dr. Mahomed related a case of a child in Guy's Hospital, under the charge of Dr. Fagge, where a pneumonia, that was thought croupous at first, did not clear up, and gave signs of breaking up of the lung. He was anxious to treat the case by incision, thinking that it might be an abscess of the lung, following extensive catarrhal pneumonia, which would, if left, end in acute tuberculosis. But the evidence of a cavity was too doubtful to allow this course. The child eventually died from the cause he had feared, and a large cavity was found. He was anxious to know how an adherent pleura might be certainly recognised. In Dr. Cayley's case there seemed to him to have been old adhesions. He also wished to ask what Dr. Williams considered to be the nature of the bilious attacks he had described.

Dr. Sedgwick related a case he had seen many years before, which he had diagnosed to be an abscess of the lung. This having become fetid gave rise to great constitutional illness, but after some delay he thought he discovered a bulging in the seventh intercostal space, and there introduced a trocar. The result was very gratifying, and the patient (his father) recovered, though extremely ill at the time. In the following winter the same trouble recurred in the old place, and required the same treatment, by which life was prolonged for several weeks.

Dr. Douglas Powell agreed with Dr. Pollock that the interest of these cases was, first, as to the diagnosis, and secondly, the best treatment for them. In a case now under his care he had diagnosed a pyo-pneumothorax because the side was bulged and the intercostal spaces were effaced. The shifting dulness described by Dr. Pollock he regarded as a valuable test, as also the alteration of physical signs after profuse expectoration. It had been said that it did not much matter which condition was present, but he thought that in empyema it was better to make an incision in the lowest available spot, while a cavity should be opened by a trocar over its middle. He would not touch apex cavities; but in those at the base it was very different, and here there was risk that the sputum would be inhaled into the other lung in the intervals of coughing. He would also allude to an old way of treating profusely secreting apex cavities, which was in his opinion of great service, namely, by blistering, and the application of savine ointment.

Mr. H. Marsh said that for himself he always insisted on knowing at what point the physician wished the chest to be opened; but he considered that it was generally advisable, when a low opening was needed, to make a preliminary incision over the most prominent point, and then a counter-opening below.

Mr. Howse wished to draw attention to the trouble often caused by old adhesions of the pleura converting the pleural cavity into a network of sinuses. This had been frequently, in his experience, a source of difficulty, and he thought that here a second opening would often prove futile. As to tapping cases of gangrene of the lung, he was not inclined to recommend this procedure. He had seen three cases lately where the gangrene was very limited, and no surgical interference would have been possible.

Dr. Goodhart wished to ask Dr. Cayley what importance he laid on the presence of fetor as an evidence of gangrene. He had not understood from the notes read that there had been distinct evidence of a cavity. In two cases under his care there was the same absence of distinct signs of cavity, though the fetor was great. One was no doubt an old empyema. Was it not also true that these patients often went on a long time without getting worse?

Mr. G. Bird always trusted to a double opening with a drainage-tube between them, and insisted on this as a point of importance. If this course was impracticable, he trusted to a considerable slit rather than a single puncture.

Mr. Marsh wished to ask how far it was safe to inject such cavities with iodine. In one which he had so treated, and where there proved to be a communication with a bronchus, the patient nearly died from asphyxia.

Dr. Bristowe remarked that it was clear there was great difficulty in distinguishing between a cavity and a pyo-pneumothorax; but he thought the treatment of both should be the same. With reference to the value of shifting dulness that Dr. Pollock had insisted on, he mentioned a case of abscess of the lung where the cavity was very large—quite large enough to have proved misleading in this respect. The recognition of elastic fibres in the sputum was often a fallacious indication, of which he related a case in point. For his part, he trusted greatly to antiseptics in the treatment of these cases.

Dr. Williams, in his reply, explained that in the recognition of adherent pleura he trusted to the old rules of retraction of the intercostal spaces, etc., and explained what was meant by the bilious attacks in his patient.

Dr. Cayley, in answer to Dr. Goodhart, said he had taken the precaution to puncture with the aspirator before tapping.

The meeting then adjourned.

The Study of "Natural Philosophy."—We learn from *Nature* that in the last Cambridge Local Examinations (December, 1878), among 626 senior boys there were 92 candidates for the chemistry paper, 244 for practical chemistry. Of 997 senior girls, 29 took the paper, and only 4 the practical examination. Twenty-one boys and no girls entered for experimental statics and dynamics, etc.; 38 boys and 24 girls for heat; 38 boys and 4 girls for electricity. Only 3 boys (two from the Liverpool Institute and one from Newton College, Devon) obtained the mark of distinction in the section "Natural Philosophy," in which all these subjects are included, and no girls. These boys and girls were between sixteen and eighteen years of age. Among 3329 junior boys and 1483 junior girls, 423 boys and 13 girls took the chemistry paper, 169 boys and 1 girl the practical chemistry, 76 boys and no girls statics, etc., 178 boys and 12 girls heat. Seven boys (the majority from Liverpool College) and no girls attained distinction. Many more girls than boys entered for zoology, botany, and geology.

OBITUARY.

WILLIAM MARTIN, F.R.C.S., L.S.A.

Old members of her Majesty's Indian Army will regret to hear of the death of this estimable member of their Medical Service, which event took place at his residence, St. Peter's-square, Hammersmith, on the 16th ult., in the sixty-sixth year of his age. The deceased gentleman was admitted a Member of the Royal College of Surgeons in 1836, and a Fellow in 1857. He was a constant attendant at the annual meetings of the British Medical Association, and was looking forward to the one about to meet at Cork with peculiar pleasure, in company with his kind friend and neighbour, Dr. Begley, who gave him all the advantage of his professional skill.

ARTHUR PAUL, M.R.C.S., etc.,

Died at his house, Newburgh Villa, outside the West-gate, Winchester, on March 1, in the sixty-fifth year of his age. He was formerly one of the numerous pupils who attended the practice of the Winchester Hospital in the days of Mayo, Lyford, and Wickham; and after becoming a member of the College of Surgeons in 1837, he held the post of Resident House-Surgeon to the Hospital. Being possessed of independent means, and having but indifferent health, he never followed out the practice of his profession, but devoted his time to the study of German philosophy, and to the public business of Winchester. He was an income-tax commissioner and justice of the peace. A man much trusted and respected.

MR. JOHN MELVILLE.

During the past three years Mr. Melville has been a student of medicine in Aberdeen University, and was distinguished no less by the high position which he took in the classes than by his upright and manly character. Having occasion to spend this year in Edinburgh, he was, when busily engaged with his studies, seized with typhoid fever. The attack for a time did not appear to be a severe one, but latterly serious symptoms set in, to which, notwithstanding everything which medical skill and careful nursing could do, he at last succumbed, passing away quietly and peacefully early on the morning of the 18th ult. He had throughout his illness the constant and brotherly care of his friend Dr. John Brown, formerly of the Cape: and Professor Sanders and Dr. Wyllie, Physicians to the Royal Infirmary, and their assistants, were unremitting in their attendance. Although he had been but a short time in Edinburgh he had attracted notice as a hard-working student, and became a favourite with all around him. The intelligence of the sad event has been received with a feeling of deep regret among the many fellow-students and friends Mr. Melville had in Aberdeen, and by whom, students and professors alike, he was held in much respect. It was his hope to have taken his degree at Edinburgh University in the course of next month, and to have returned to practise his profession at the Cape. His career is now closed at the early age of twenty-four; but the memory of John Melville will long be cherished by his many friends in Aberdeen.

The anniversary festival of the Metropolitan Free Hospital was held on the 25th ult., at the Freemasons' Tavern, the chair being taken by Baron de Worms. In proposing the toast of "Prosperity to the Hospital," the chairman said the institution was placed in one of the poorest and most populous parts of London, and the only passport required of patients was their sickness and poverty. He described the amount of suffering annually relieved, and urged his hearers to contribute liberally to the funds, as a sum of £25,000 is required to erect the new buildings intended to replace the old hospital. During the evening the Secretary announced that a first list of subscriptions and donations showed receipts of £1892, a list of sums collected by and from members of the Jewish community amounted to £4469, and these, together with other contributions to the building fund, gave a grand total of over £15,000 already received.

MEDICAL NEWS.

Royal College of Surgeons.—The Preliminary Examination in Arts, etc., of candidates for the diplomas of Fellow and Member of this institution, which has been conducted by the College of Preceptors at Burlington House, has just been brought to a close. The following gentlemen passed for the Fellowship, viz.:—

W. A. Aikin, E. C. Aspinall, J. B. Baker, J. F. Bate, F. R. B. Bishop, A. B. Blacker, H. H. Bovill, H. T. Bowman, H. W. A. Bransom, H. Buckland, G. Callender, F. W. Cattle, E. A. Chill, G. W. Collins, A. W. Comber, M. C. Corner, D. F. B. Cotes, A. H. L. Cox, C. R. Crane, W. C. Dolley, Robert Denman, H. H. Du Boulay, W. L. Edwards, D. M. Evans, W. G. Evans, H. H. Fisher, J. K. Frost, L. M. Gabriel, W. M. Gabriel, H. G. Hathaway, Jas. Heelas, H. T. Herring, A. W. Hogg, Matthew Johnston, J. P. B. Wills, J. H. Keeling, George Kirkhouse, F. W. S. Le Maistre, C. G. Lermitte, Wm. Mackonochie, T. H. Maddison, A. L. Marshall, E. S. Murphy, Gerald Nicholson, E. J. Penny, G. R. Pigg, Chas. Plant, A. T. Price, H. J. Pulling, R. M. Roberts, H. B. Robinson, F. A. Rogers, G. H. Scott, E. C. Sharpin, C. Y. Shuter, G. W. B. Slader, J. F. Spong, J. W. Spragge, H. F. D. Stephens, S. H. Stephenson, J. B. Sutton, C. E. Tanner, N. H. Turner, D. C. Trott, J. B. Wilkinson, G. Winfield-Roll, H. E. Winter, G. P. Wornum, and C. J. Weller.

The following gentlemen passed this examination for Membership of the College, viz.:—

A. G. Andrews, M. M. Adam, T. H. Adams, E. K. Alderson, H. W. Allingham, T. C. Angrave, G. R. Ayshford, H. V. E. Baker, G. L. Barritt, R. W. Bateman, F. W. Bayldon, G. S. Beatson, J. B. H. Beatty, F. A. Bennett, C. A. Biggsley, C. O. Birch, Thomas Birt, Bernard Blower, R. A. Bostock, G. M. P. Braine, Edward Bryden, Ernest Baly, W. T. Barnes, S. B. Beard, F. G. Bewes, F. M. Bovill, G. G. Campion, J. E. W. Carroll, E. B. Chamberlain, A. D. Chapple, A. J. Charlick, H. Codd, J. Collier, R. H. Collins, R. H. Combes, F. W. Cornish, Francis Cresswell, Arthur Crossley, Ernest Cusse, W. L. Cross, H. L. Cummings, Howard Davies, C. W. Dean, Hugh Dillon, A. H. Dodd, W. H. Dodd, C. H. Drew, D. J. Du Plessis, G. H. De'ath, C. C. Ellis, J. P. Evans, C. M. Fegen, E. J. Fernandez, Alfred Fisher, G. W. FitzHenry, Lawrence Franklin, J. W. FitzGerald, E. C. Garman, A. Gittings, J. Gooding, S. F. Goss, H. J. Gould, A. W. Gray, S. W. Griffith, J. S. Grose, R. C. Guise, J. B. Griffiths, W. Habgood, W. J. Hadley, W. R. H. Haines, G. E. Hale, Fred Hall, G. J. Hall, Walter Hall, Geo. Harrison, Reginald Hartley, Harry Hartry, F. W. Hatchett, Henry Hick, Charles Hicks, J. S. Hill, W. H. Hill, Harry Hobbs, H. S. G. S. Hore, Herbert Howard, A. A. Howell, H. C. Hughes, C. S. Humphreys, A. W. Hunton, Thomas Iredale, W. R. Y. Ives, H. F. Jackson, John Jeeves, C. H. Jenkins, G. D. Johnston, Frank Jones, J. A. Jones, C. L. Joaling, T. T. Joyce, Joseph Kay, W. H. Kelson, Alfred Kirby, E. W. D. Kite, Reginald Koettlitz, Arthur Large, Alfred Lawrence, C. B. Leaver, C. F. Le Sage, David Lloyd, Henry Lloyd, C. Lyddon, C. H. Maclauren, J. Malpas, P. R. Mander, N. Manders, William Mann, E. S. Mander, F. J. G. Mason, William Matthews, F. W. Mawby, W. B. Milnes, A. T. Minton, W. F. Moore, F. E. Morris, S. A. Mugford, R. W. Murray, G. J. Nicholls, E. A. Nicholetts, S. J. Nicholls, William Nicholls, G. F. O'Flahertie, M. W. Oldham, E. A. Opie, W. H. Paine, J. E. Painter, H. G. Palmer, R. F. Pennefather, E. W. Phillips, F. A. O. Pierson, Leslie Powne, W. F. Pool, F. G. Parrott, H. M. Partridge, P. E. Perot, B. T. Read, M. J. Rees, Hugh Roberts, O. W. Roberts, John Robertson, M. G. Robinson, G. H. Rodman, H. H. Roe, E. G. Salt, J. W. Sanders, Edward Sharpley, H. G. Shaw, H. B. Shillingford, Frederick Slowman, Robert Smailes, T. A. Soden, C. E. Solomon, James Soutter, C. H. Souter, Walter Spencer, A. F. Stace, J. D. Staple, W. H. Starr, G. F. Stericker, Bernard Stevenson, Frederick Stevenson, John Stevenson, C. T. Street, E. B. Sugden, Alfred Sutton, J. D. M. Swinburne, Newman Smith, Joseph Sprott, E. G. Thomas, John Thomas, H. C. Thurston, H. I. Tresidder, E. R. Tweed, E. D. Vipan, J. N. Vogan, William Urwick, Henry Waite, H. S. Walker, C. B. Waller, Henry Walter, C. W. Ward, F. A. Warner, A. C. Waters, E. R. Wawn, E. D. Wellburn, C. J. West, C. H. West, J. B. Wheeler, J. W. White, H. B. Williams, R. E. Williams, Donald Wilson, F. E. Williams, H. W. Brighouse, J. W. Cooper, John M'Oscar, H. W. R. R. Crosse, A. A. McAnally, Ernest Noad, F. H. Kissack, Edward Nason, Arthur King, A. C. Deare, C. W. Hemming, J. S. Cooper, Albert Bowhay, A. L. Bright, R. W. Adams, M. E. H. Wale, S. H. Youel, H. W. W. Aubrey, P. T. Burges, J. T. Hornblower, H. S. Jones, W. S. Pratt, Thomas Wholey, Joseph Walker, and H. T. Platt.

Of the candidates examined for the Fellowship, 65 were successful, and 208 passed for the Membership. These gentlemen can now commence their professional studies.

Apothecaries' Hall, London.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 27:—

Coles, Donald Alexander, Plymouth.
Emson, Alfred, Dorchester.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Battiss, William Sullivan, London Hospital.
Fraser, Donald Alexander, St. Mary's Hospital.

APPOINTMENTS.

De la Motte, Peter W., M.R.C.P., M.R.C.S., L.S.A. Lond.—Medical Officer to the West London District School at Ashford, near Staines, vice C. Kingsford, F.R.C.S. Eng., resigned.

Mackenzie, G. H., M.D.—Lecturer on Laryngoscopy and Diseases of the Throat, Minto House Medical School, Edinburgh.

MURCHISON, CHARLES, M.D.—Physician-in-Ordinary to their Royal Highnesses the Duke and Duchess of Connaught and Strathearne, with the approval of her Majesty.

STEELE, RUSSELL, L.R.C.P. Edin., M.R.C.S.—Honorary Medical Officer to the West Herts Infirmary, *vice* E. H. Ambler, F.R.C.S.E., L.S.A., deceased.

WRIGHT, ALFRED, L.R.C.P. Edin., L.F.P. & S. Glasg.—Medical Officer to the Convent of the "Good Shepherd," at Catholic Reformatory at Finchley.

BIRTHS.

BROWN.—On March 27, at 1, Bartholomew-road, Kentish Town, the wife of Andrew Brown, F.R.C.P.E., etc., of a son.

CORBAN.—On March 27, at Sunnyside House, Gibraltar, the wife of Surgeon-Major Laurence Corban, M.D., of a daughter.

FLOWER.—On March 31, at Warminster, the wife of Thomas Flower, M.R.C.S., of a son.

MILSON.—On April 1, at 88, Finchley-road, South Hampstead, the wife of R. Henry Milson, M.D., of a daughter.

RAHILLY.—On March 24, at Mallapooram, India, the wife of J. R. Rahilly, L.K.Q.C.P.I., Surgeon A.M.D., of a daughter.

SHEARMAN.—On March 26, at The Hollies, Swinton, near Manchester, the wife of W. M. Shearman, L.R.C.P. Edin., of a daughter.

TEAGUE.—On December 8, at Melbourne, Australia, the wife of J. P. Teague, M.D., of a daughter.

WHITEHEAD.—On March 26, at Belgrave House, Ventnor, Isle of Wight, the wife of J. L. Whitehead, M.D., of a son.

MARRIAGES.

EVANS—TAYLOR.—On March 22, at Rome, Freke Evans, only son of the late Mendham Freke Evans, of Wateringbury, Kent, to Ada Mary Champneys, only daughter of Henry Taylor, M.D., H.M.'s Indian Army, retired.

HOOPER—MENDS.—On March 20, at St. Helier's, Jersey, Surgeon-Major Lucas George Hooper, M.R.C.S. Eng., A.M.D., H.P., to Alicia Anderson, eldest surviving daughter of the late Lt.-Col. Mends, 2nd W.I. Regt.

LIDDERDALE—SCOTT.—On March 27, at Calcutta, Robert Lidderdale, M.D., of Darjeeling, to Rosomond Scott, of East Hayes, Cheltenham, third daughter of the late Henry E. Scott, C.E., of Bevelaw, Mid-Lothian.

SETON-WEATHERHEAD.—On March 29, at St. George's, Tufnell-park, David Elphinstone Seton, M.D., of 12, Thurloe-place, S.W., to Mary, youngest daughter of John Weatherhead, Esq., Governor of the City Prison, Holloway.

SMITH—DIGBY.—On February 17, at the British Consulate, Bangkok, Siam, G. Stevenson Smith, L.R.C.S. Edin., Surgeon to the Consulate, to Flora Frances Matilda Digby, of Bayswater, London.

WOODS—LEATHLEY.—On March 26, at Kingstown, Oscar Thomas Woods, B.A., M.D., Med. Sup. Killarney Asylum, to Ellen Eveline, younger daughter of Forde Leathley, Esq., of Kingstown.

DEATHS.

BURNETT, MARGARET JANE, wife of F. Burnett, M.D., at Dover, on March 28.

BURWOOD, MARY, wife of T. Wesley Burwood, L.K.Q.C.P.I., at Strathmore, Florence-road, Ealing, W., on March 29, aged 35.

ELLIOTT, MARTHA ANN, wife of Glanville O'Brien Elliott, M.D., Leeward Island Medical Service, Presidency of Dominica, at St. John's, Antigua, West Indies, on January 13.

LATTEY, ABRAHAM HELY HUTCHINSON, M.R.C.P., etc., at Nitenhage, Port Elizabeth, Cape Colony, on February 18, aged 69.

MCBAIN, JAMES, M.D., R.N., at Logie Villa, Trinity, Edinburgh, on March 24.

MASSY, ANNIE, wife of H. D. Massy, L.R.C.S.I., Surgeon-Major, Army Medical Department, at Southampton, on March 26.

NUNN, PHILIP STACPOOLE, eldest and only son of Philip W. G. Nunn, L.R.C.P. Lond., at Maplestead, Bournemouth, on March 27, aged 4.

RAY, EDWARD R., M.R.C.S. Eng., of Milton, near Sittingbourne, at Cambridge-street, Hyde-park, on March 26, aged 50.

ROBERTSON, WILLIAM, M.D., R.N., at Belmont, Bridge of Allan, on March 28.

SELLS, THOMAS JENNER, M.R.C.S., J.P., second son of William Sells, of Kingston, Jamaica, W.I., at Guildford, on March 31.

SHEPARD, HANNAH SOPHIA, wife of Alexander John Shepard, M.R.C.S., of Ty Cornel, Usk, and only daughter of Thomas Smith, M.D., of Portland House, Cheltenham, on March 29.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials as to character and ability, to Hugh Mason, Esq., Ashton-under-Lyne, on or before May 3. Applicants to state age.

CHILDREN'S HOSPITAL, PENDLEBURY, NEAR MANCHESTER.—Junior Resident Medical Officer. Candidates must be doubly qualified and registered. Applications, with testimonials, to the Chairman of the Medical Board, on or before April 8.

GATESHEAD DISPENSARY.—Assistant-Surgeon, with double qualification Apply to Mr. Joseph Jordon, 25, Close, Newcastle.

GLAMORGAN COUNTY ASYLUM, BRIDGEND.—Assistant Medical Officer. Applications to the Medical Superintendent, on or before April 8.

INFIRMARY FOR CONSUMPTION, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Visiting Physician. Every information may be obtained from the Secretary.

NOTTINGHAM DISPENSARY.—Assistant Resident Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons, England, Edinburgh, or Dublin, or of the Faculty of Glasgow, and Licentiates of the Royal College of Physicians at London, Edinburgh, or Dublin, or Licentiates of the Apothecaries' Company, and duly registered. Testimonials to the Committee at the Dispensary, on or before May 5.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Physician for the Diseases of Women, and an Ophthalmic Surgeon. The Physician must be a Fellow or Member of the Royal College of Physicians of London; and the Surgeon a Member of the Royal College of Surgeons of England. Both gentlemen will be required to give clinical instruction to the students of the London School of Medicine for Women. Applications, with testimonials, to the Secretary, on or before April 30.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Aston Union.—Mr. W. W. B. Sparrow has resigned the Fifth District; area 1260; population 26,000; salary £80 per annum.

Hackney Union.—Mr. R. H. Smith has resigned the Workhouse.

APPOINTMENTS.

Leeds Union.—James Robbins, R.M. and M.C. Edin., as Assistant Medical Officer at the Workhouse.

Ruthin Union.—Wm. D. Jones, M.R.C.S. Eng., L.R.C.P. Edin., to the First District.

Weobley Union.—John Hannay, L.R.C.P. Edin., L.R.C.S. Edin., to the Weobley District and the Workhouse.

VITAL STATISTICS OF MELBOURNE.—From an interesting lecture by Dr. Jamieson on "Diseases which should be Prevented," published in the *Australian Medical Journal* for September, we take the following figures, illustrative of the faulty sanitary condition of Melbourne. "It might have been expected," Dr. Jamieson observes, "that in Melbourne, with its admirable climate, wide-spread population, and the absence of all destitution, the death-rate would contrast favourably with those of England, and especially that of London. In fact, however, the difference is insignificant, viz., 22·98 as against 23·68 per thousand persons living. To show how excessive is the death-rate of Melbourne, it may be compared with that of the rest of the colony, which is only 9·54 per thousand. Whilst, then, the number of deaths in Melbourne (22·98) is about the same as that in England as a whole (22·23), and not much less than that of London, the mortality in our country districts is less than half of that in the rural districts of England and Wales (19·8). It is evident that there must be something materially wrong in the sanitary arrangements of this city, when such a state of matters has come about. If by any means the number of deaths in Melbourne and suburbs could be brought to bear the same proportion to the death-rate in the rest of the colony as the rate in London bears to that in the rural districts of England and Wales, it would be only 11·41 per thousand, about one half of what it is at present, representing a saving of more than 2800 lives every year." As to the mortality among *children*, nothing reliable has been published since the census year 1871, when the number of deaths under five years was returned at 59·96 per thousand for Melbourne, and at 52·94 for the rest of Victoria. According to the *Victorian Year Book*, of 1000 children born in Victoria, no less than 126 (or about one in eight) die before they reach twelve months. "Being curious to know how our infant population gets thinner year by year, I have made a calculation for the purpose of discovering how many of the 1000 would be left at the end of five years, with the result that before that age is reached just about 200 have dropped out. And so the loss goes on year after year increasing, until I would not like to say how many, or rather how few, grow up to take their places in a country large enough for them all, and needing every active brain and willing hand to make it better."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

FOREIGN DEGREES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—At the meeting of the Medical Council on Wednesday, March 19, Dr. Wood stated that he had had it pointed out to him by Sir James Paget that there might be men coming from Germany and England to be registered who might not have passed the "Staats-Examen," and that therefore he should not vote for the registration of foreign degrees as additional qualifications, as requested to do by the President of the Foreign Graduates' Association. Will you allow me to point out that the mere fact of the degrees being registered as "additional qualifications" must be sufficient evidence of the holders having passed examinations

before British Boards, even if they should not have done so before the German State Board of Examiners. Also I presume that, when the Lord President's Bill passes and becomes law, British degrees will, in like manner as the German, confer no right to practise without the State examination being also successfully passed, yet they will be entitled to a place on the Medical Register. I beg to differ with Sir William Gull's remark that the Medical Register is the authority by which a man's degrees and qualifications should be known. I am personally acquainted with a physician who is a graduate of a British university, and who has not registered any of his qualifications, and does not intend doing so either. Is he, then, not a graduate because he is unregistered? Sir William Gull evidently considers that if a man who holds an "M.D." from a university be unregistered he is not a graduate. Such a notion is quite erroneous. Sir William Gull may vote against the official recognition of foreign degrees, but he can never prevent the use of them by registered practitioners, any more than he can prevent the use of the word "enquire," or any other word. Dr. Wood remarks that there will be no difficulty with regard to M.D.'s from France, Harvard, or Berlin. I think he cannot sufficiently have studied the Duke's Bill, for Clause 9 distinctly states that no foreign degree shall be registered which does not confer the right to practise in its own country. The degree of Berlin does not confer this right. It may be interesting to some of the readers of this journal to learn that degrees granted by French, Austrian, Italian, and United States universities give a licence to practise in those countries respectively, but those granted by Belgian, German, and Canadian universities do not do so, a State examination having to be passed before registration can be effected in those countries. British degrees, after the passing of the Government Bill, will be similarly situated to these latter.

I shall be obliged if you will insert this letter in your next issue; and beg to remain, Sir, Yours, &c.,

Sheffield, March 24. H. J. HARDWICKE, M.D.

Query, Is "Instability" Lunacy?—A good deal of attention is being given by medical men to a lawsuit now going on in Paris. The litigants are M. Beaupan père and M. Beaupan fils. The father accuses his son of mental incapacity. The articles of accusation are novel and peculiar. The father desires to obtain what is called an "interdiction" against his son; in fact, that he should be put under the control of a person charged with the management of his affairs. He has accordingly to prove the youth guilty of "madness and imbecility of mind." The proofs adduced are of a singularly original character, and even grotesque. The madness, or, as the father calls it, the "instability" of the son, is alleged to have been first observable at the time of the Commune, when the young man, being in the National Guard, supported the cause of order, and was on two or three occasions very nearly shot by the Communists. Subsequently, his "instability" of mind was exhibited in a variety of ways—namely, paying money without taking receipts, giving security for other persons without any sufficient reason, and keeping no accounts. But the culminating and gravest accusation appears to be that he has fallen in love with too many ladies at the same time. Moreover, he has indulged in the purchasing of most odd and unnecessary articles, and was devoted to the study of impossible inventions.

Rural Sanitary Works.—The new waterworks at Leamington have been opened. Hitherto the supply was from the river Leam, but the water of that stream becoming unfit for use, these works have been constructed at a cost exceeding £25,000, and water is now obtained from a deep boring in the red sandstone. The Croydon Local Board have declined an offer from the West Kent Sewerage Board to grant the town an outfall through their sewers on payment of 8d. in the pound on the rateable value of the entire district, and have resolved to proceed with the drainage of Coulsdon. The Board of Guardians of Croydon are about to erect new infectious wards at the Union Workhouse. The Wolverhampton Town Council have resolved to borrow £25,000 for the purpose of carrying out improvement schemes under the Artisans' Dwellings Act. The Torquay Local Board have decided to erect a fever hospital. The Town Council of Carlisle invite proposals for the disposal of the sewage of the town generally. At Dawlish a new cottage hospital is to be erected in the Stockton-road at an estimated cost of £760. The Local Government Board has sanctioned the borrowing of £650 for sewerage purposes by the Corporation of Dover. A scheme for sewering the districts of Friern Barnet is under consideration.

Workhouse Dietary.—An alteration in the dietary rules of the St. Pancras Workhouse, which, though comparatively of minor importance, may serve as an example to other similar establishments, has just received the sanction of the Local Government Board to prevent the waste of bread—a too common practice in workhouses containing a large number of sick and bedridden persons. The Master of the St. Pancras Workhouse suggested to the Guardians that the bread served out to such inmates, but not consumed, should be utilised for bread-puddings in lieu of rice-puddings on Saturdays, care being taken that such bread, though served out, had not been handled by any of the inmates. The Guardians adopted the master's suggestion, and it having been sanctioned by the Local Government Board, the new plan is already in operation.

F.R.C.S., Southampton.—The annual election of Fellows into the Council of the College will take place the first Thursday in July. There will be four vacancies declared at the next meeting, caused by the death of Mr. John Hilton, and the retirement in the prescribed order of Messrs. F. Le G. Clark, F.R.S., George Critchett, and T. Spencer Wells, who are, however, eligible, and doubtless will offer themselves for re-election, although a rumour has reached us that the first-named gentleman will not seek re-election.

Dr. W. Jones, Swansea.—A printseller will, no doubt, be able to obtain for you the quaint old engraving of the blushing damsel and the water-doctor. The late Dr. Lang was the last of these gentry. The practice was not, however, confined to men, as a circular before us states that "Elizabeth Beynon, daughter of the late Griffith Griffiths, the celebrated and well-known Water Doctor of Rydwilliam, in the county of Pembroke, begs leave to inform the afflicted that for years previous to her father's death he took all possible pains to instruct her in his art of healing diseases by casting the morning urine; and having got possession of all his valuable books and recipes, she is fully persuaded that she can, by the help of God, cure all complaints incident to man, woman, or child.—*** Cancers, wounds, and bruises cured in a short time.—Brawdy Pariah, near Solfa.—James Thomas, printer, Haverfordwest."

Mr. E. S. S. D. and A Tutor.—A correct list of successful candidates appears this day in the *Medical Times and Gazette*. We understand the desired information has been sent to all the candidates. Those who have passed can at once commence their professional studies. "A Tutor" is informed that we never recommend particular hospitals.

Condemned Mortar.—Surveyors to our local boards are, very properly, taking legal steps for the enforcement of the penalties of the law upon builders for using materials in the erection of houses which are inferior, unsuitable, and dangerous, and in violation of the requirements of the Act of Parliament. At Edmonton a builder has been fined £5 for using improper mortar in houses erected on Asplin-road. The surveyor of the local board proved that the "mortar" used consisted of road-sweepings with a very trifling admixture of ordinary mortar.

Belgian Military Surgeons on Drinking in the Army.—In the "Belgique Militaire," several military surgeons in Belgium have joined together in writing an article on the best way to discourage the mania for drinking which has become so common a practice in the army. One contends for the prohibition altogether of the sale of brandy or other spirits in the canteens in the barracks. A considerable quantity of spirits is sold in these depôts, and it is there the young recruit acquires the habit of drinking liquor, sanctioned, to some extent, by the military authorities, who supply the premises on which the drinking is carried on. Moreover, the soldier, it appears, invariably avails himself of every interval between drills to go to the canteen for drink, but brandy is bought there, and taken into the men's rooms, where non-commissioned officers and privates revel together, to the great detriment of discipline. It is urged that if this sale of spirits were forbidden, better beer and coffee would be provided in the canteens, and the soldier would drink these beverages instead of brandy. Another of these military surgeons recommends the establishment of recreation rooms, as in England, supplied with books, papers, games, etc., where the soldier might find amusement, but where he would not be allowed to drink or buy spirits. He also urges that drunkenness or the abuse of liquor ought always to be punished, and not, as now, only treated as a crime when it produces disorderly and riotous conduct. Under the present system many men come before the doctor, showing all the symptoms of alcoholic poisoning, who have never been punished for drunkenness.

The Afghan War, and how it is Medically Officered.—Writing from Daka, on February 19 last, a correspondent of the *Times* states—"The new medical system is reported to work well. The base hospital at Peshawur receives all serious cases. Cases of men likely to recover in a few weeks are treated at the field hospitals at Jellalabad, Daka, and Jamrud. These field hospitals, and of course the base hospital, are well supplied with every medical comfort and liberally officered with medical officers, but it may be doubted whether regiments and posts are not starved for the benefit of these larger hospitals. At Basawal, which contains the greater part of a European regiment, there is but one medical officer. At Barakab, with 150 Europeans and natives, there is only an apothecary apprentice in charge, and the force of 100 Europeans and 200 natives, which marched from Basawal to Gurdi Rus, was only accompanied by a 'native doctor,' as he is called, of the Sikhs—a medical subordinate, who has probably never attended a European in his life. Should a sudden expedition have to start, for instance, from Basawal, the only medical officer there would of necessity have to accompany it, and the troops cantoned between Jellalabad and Daka—a distance of thirty-seven miles—would be left without the aid of a single medical man. In spite of the excellence of the base and field hospitals system, such a state of things is not desirable. More transport officers have recently been appointed to the field force, but regimental medical officers are still more urgently needed."

A Caution.—A local bench of magistrates has just fined a gentleman 10s. and costs for giving to an itinerant vendor of muffins, who called at his house on a very cold day, and who appeared to greatly suffer from its intensity, some whisky; the quantity is not stated. Subsequently the muffin vendor was discovered in a ditch drunk and incapable, and, in the course of the prosecution on the charge which followed, it transpired that he had been hospitably treated by the gentleman in question, whereupon proceedings were instituted against the latter for "aiding and abetting drunkenness," and the magistrates imposed a fine of 10s. and costs—a decision which is to be appealed against.

COMMUNICATIONS have been received from—

M. D. Colquhoun, London; Dr. J. R. Wolfe, Glasgow; Mr. W. E. Poole, London; Dr. F. Churchill, London; Mr. B. R. Wheatley, London; Mr. Christopher Heath, London; Mr. T. M. Stone, London; Dr. C. Godson, London; Mr. John Chatto, London; Mr. Balmanno Squire, London; Messrs. F. Newbery and Sons, London; Mr. S. J. Hutchinson, London; Dr. Dunglison, Philadelphia; Dr. Dowse, London; The Registrar of Apothecaries' Hall, London; Dr. Robert Hall; Dr. Gavin Milroy, Richmond; Dr. G. E. Herman, London; Mr. George Brown, London; Dr. E. J. Sparke, Mentone; Mr. Alexander Ogston, Aberdeen; Mr. Clement Lucas, London; Dr. H. Ashby, Manchester; Dr. G. M. Humphry, Cambridge; Mr. Walter Nerve, London; Messrs. John Barnett and Sons, London; Professor F. de Chaumont, Netley; The Secretary of the Royal Institution; Dr. R. Druitt, London; The Registrar-General, Edinburgh.

BOOKS AND PAMPHLETS RECEIVED—

William Thomson, F.R.C.S., Typhoid Fever, its Cause and Extent in Melbourne; Remarks on a Review of the Report on the Cause and Extent of Typhoid Fever in Melbourne—Henry Maudsley, M.D., The Pathology of Mind—Alfred Stillé, M.D., LL.D., and John M. Maisch, Ph.D., The National Dispensatory—L. de Beurmann, M.D., Recherches sur la Mortalité des Femmes en Couches dans les Hopitaux.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—El Siglo Médico—Medical Inquirer—Transactions of the Odontological Society—Centralblatt für Gynäkologie—Prize Paper—Medical Bulletin—Colonies and India—Social Notes—Veterinarian—Monthly Homœopathic Review—Toronto Sanitary Journal—Medical Temperance Journal—Rivista Settimanale di Medicina e Chirurgia—Archives Générales de Médecine—Glasgow Medical Journal—Edinburgh Medical Journal—Analyst—Students' Journal and Hospital Gazette.

APPOINTMENTS FOR THE WEEK.

April 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. Seymour Haden, "On Etching."

7. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.); 8 p.m. Dr. W. J. Little, "On some Palmar and Finger Contractions: an Inquiry whether Contraction of the Palmar Fascia is the Contracting Agent in the Distortion associated with its name?"

Medical Society of London, 8½ p.m. Dr. Samuel Benton, "Notes of Two Cases of Eczema Squamosum." Mr. Jabez Hogg, "On Arsenical Conjunctivitis and Arsenical Wall-Paper Poisoning."

Odontological Society, 8 p.m. Mr. G. W. Field, "On Gold-Filling." Casual Communications from Dr. Walker, Dr. Morrison, Messrs. W. C. Ranger, Oakley Coles, Robert Waller (per A. Coleman). Subjects: "Mechanical Restoration of Contour of Hard Palate and Nose"; "Case of Sarcoma arising from Periosteum of Lower Molar Root"; "Mechanical Treatment of Gunshot Wound of Face."

Royal Institution, 5 p.m. General Monthly Meeting.

8. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Discussion on the Report of the Committee on Croup and Diphtheria.

9. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Royal Microscopical Society, 8 p.m. Rev. W. H. Dallinger, "On the Thermal Death-Point of known Monad Germs in Fluid." Mr. R. B. Tolles, "An Illuminating Traverse Lens."

10. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

11. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 29, 1879.

BIRTHS.

Births of Boys, 1198; Girls, 1153; Total, 2349.
Average of 10 corresponding years 1869-78, 2378.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	1044	1034	2078
Average of the ten years 1869-78	845·8	831·8	1677·6
Average corrected to increased population ...	...	...	1795
Deaths of people aged 60 and upwards ...	...	...	92

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	4	1	7	1	10	...	1	...	6
North ...	751729	1	5	10	1	25	...	4	1	1
Central ...	334369	...	2	2	...	4	...	1	...	1
East	639111	..	6	3	3	20	...	7	...	7
South	967692	4	15	10	3	26	2	6	...	3
Total	3254260	9	29	32	8	85	2	19	1	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·563 in.
Mean temperature	35·5°
Highest point of thermometer	59·7°
Lowest point of thermometer	29·2°
Mean dew-point temperature	30·2°
General direction of wind	E.N.E.
Whole amount of rain in the week	0·17 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 29, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending March 29.	Deaths Registered during the week ending March 29.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2349	2078	59·7	29·2	35·5	1·95	0·17	0·43
Brighton	105808	44·9	62	36	52·0	29·6	35·9	2·17	0·14	0·36
Portsmouth ...	131821	29·4	86	58	...	...	...	...	...	...
Norwich	85222	11·4	63	39	55·0	29·0	34·5	1·39	0·16	0·41
Plymouth	74293	53·3	47	38	50·0	30·0	38·9	2·72	0·33	0·84
Bristol	209947	47·2	178	92	53·3	29·6	35·8	2·12	0·29	0·74
Wolverhampton ...	75100	22·1	63	45	48·2	26·4	32·7	0·29	0·05	0·13
Birmingham ...	388884	46·3	281	197	...	...	...	...	...	...
Leicester	125622	39·8	99	62	58·8	29·0	35·3	1·84	0·30	0·76
Nottingham ...	169396	17·0	104	94	50·5	29·1	32·9	0·50	0·21	0·53
Liverpool	538338	103·3	347	264	51·8	29·6	34·7	1·50	0·12	0·30
Manchester ...	361819	84·3	232	207	...	...	...	...	...	...
Salford	177849	34·4	164	85	...	...	...	...	...	...
Oldham	111318	23·9	74	64	...	...	...	...	...	...
Bradford	191046	26·5	119	86	44·8	28·4	32·3	0·17	0·45	1·14
Leeds	311860	14·5	182	147	45·0	30·0	33·1	0·62	0·35	0·89
Sheffield	297138	15·1	182	163	54·0	29·0	33·6	0·90	0·32	0·81
Hull	146347	40·3	116	81	55·0	28·0	34·4	1·33	0·21	0·53
Sunderland ...	114575	41·4	103	69	62·0	30·0	34·8	1·56	0·16	0·41
Newcastle-on-Tyne	146948	27·4	92	87	...	...	...	...	...	...
Edinburgh	226075	53·9	150	78	53·3	24·0	33·3	0·73	0·26	0·66
Glasgow	578158	95·8	416	273	50·2	27·7	35·5	1·95	0·10	0·25
Dublin	314666	31·3	208	197	53·5	30·0	36·7	2·61	0·47	1·19
Total of 23 Townsin United Kingdom	8502896	38·6	5717	4540	62·0	24·0	34·6	1·45	0·24	0·61

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·57 in. The highest reading was 29·71 in. on Sunday evening, and the lowest 29·39 in. on Thursday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

XII.

CLINICAL LECTURE ON CANCER OF THE BODY OF THE UTERUS.

BEING THE TWELFTH OF A COURSE OF LECTURES DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery to the Hospital.

To-day, the chief subject of my lecture is cancer of the body of the uterus, a disease forming part of a great class of diseases—cancers of the female genital organs and their neighbourhood—in regard to which a great deal has yet to be made out. The pre-eminently glandular organ called the neck of the womb is the most frequent seat of cancer in the female genital organs, but this pre-eminence is very much exaggerated. This arises from the fact that, as cancers in these parts go on, the neck of the womb becomes involved, and then the case—diagnosed as most cases of cancer are, in a late stage—is put down as a case of cancer of the neck of the womb, whereas really nothing is known as to where it originated. Lately, in "Martha," we have had thirty-nine cases of cancer in the interior pelvic region, and of these nineteen, or about one-half, have been put down as cases of cancer of the neck of the womb. But even with regard to these nineteen we have not invariably been certain that the disease ought to be so classified. We were sure that in each of these cases there was cancer of the neck of the womb, but whether the disease commenced there (and it is from the position of its commencement we would name such a disease) we could not tell. Besides nineteen cases of cancer of the cervix, we have had five cases which have been entered as cancer of the vagina, we have had four cases entered as cancer of the body of the uterus, we have had one case of cancer of the rectum, and we have had ten cases which have been classed either as cases of pelvic cancer or as cases whose origin was not only unascertained, but unguessable. In a former lecture in this course I described to you a case of cancer commencing in the sacrum, osteo-sarcoma. Cancer may commence in any part, and before I come to the proper subject of the lecture I shall say a few words about an interesting case, an example of disease which probably began in the rectum, but, as you will see, now affects the uterus as well.

E. W., aged thirty-five, was admitted March 10. She has been twelve years married and has had four children, the last three years ago, and she has not been in good health since that birth. The catamenia have been regular till six months ago; since then she has almost constantly lost some blood, and there has been at times a yellow discharge. Complains of pain in the lower part of back, and in both iliac regions, especially the left. Passes urine generally with fæces. The last are passed twenty times, or oftener, daily, and with severe tenesmic pain, and with griping in left iliac region. The disturbance by her bowels is very annoying during the night. The sister of "Martha" estimates the quantity of moulded fæces that is passed in a day as a full ordinary amount or rather more. Examination of the abdomen finds nothing abnormal except a distinct doughy feeling in the flanks and lower belly, evidently produced by accumulated retained fæces. The whole upper part of the pelvic excavation, as digitally examined per vaginam, is a hard mass, with deep fissures diverging from what is taken to be the situation of the cervix uteri, which cannot itself be identified precisely. This hard mass is only slightly displaceable upwards and downwards. The discharge is thin, blood-stained, and not fetid. The rectum, as felt per vaginam, presents a hard rounded mass, as if it contained a scybalum of the size of a hen's egg. The finger, passed per anum, after permeating a pouch about one inch and a half in diameter, reaches a tight stricture in the seat of the egg-like swelling. It admits only the tip of the finger, and is situated in the midst of extensive fixed hardness.

This case presents an example to you of an accident which is rare in the diseases of women, except in cases of cancer. It is a curious fact that an ovarian tumour, a fibrous tumour, a pregnancy, scarcely ever cause retention of fæces. When you examine some cases, as for instance two women with fibroids at present in "Martha," you would think it was impossible for fæces to get past the hard tumour jammed into the brim of the pelvis; and yet it is the fact that almost never do you see obstruction of the progress of fæces—such as you see here. Besides malignant disease, as in this case, I do not know any other cause of retention of fæces in women that is worth mentioning, except the scybalum causing ball-valve obstruction of the rectum. That is not extremely rare; I have seen it the cause of very great mistakes. In that case a woman passes liquid fæces round the scybalum; and the cases may go on even for years, never passing a proper motion, the fæces always escaping in a semi-liquid form. That is not the case here. Here the fæces are positively retained, and are not scybalous; there is no feeling of round scybalous masses, but you feel the woman's belly is really stuffed with semi-solid fæces. In this case you will have noticed that we propose to perform an operation for the relief of the patient's sufferings. Her sufferings are intense from tenesmus, accompanied by actual griping pain of a different kind from the disagreeable feeling of tenesmus. This relief we expect to be able to give her by colotomy. We perform colotomy on this woman because she is suffering a great deal, and because she has, so far as we can judge, the prospect of a considerable span of life yet—I mean a span of life not measured by years, but by a considerable number of months,—and it is surely worth while to let her have the imperfect relief which is afforded by colotomy. But on this I am not going to say anything more to-day.

Before I pass from this subject I wish to point out another very important practical fact, that while retention of fæces is almost solely due to malignant disease, retention of urine (and of this we have illustrations at present in "Martha") is a disease rarely accompanying malignant disease. Retention of urine is common in cases of fibrous tumour of the uterus; it is not common in cases of swellings, however large, produced by malignant disease.

You will notice that when I enumerated cancers of uncertain origin in the pelvis as ten, we called a good many of these pelvic cancer; and I wish to point out what is extremely well illustrated in one case in "Martha" at this moment. In that case the whole brim, the whole upper part of the excavation, is a solid mass; and when the case is not one of cancer of the neck of the womb, or rather, when cancer of the neck of the womb is not present, you have, if the woman is young, a very difficult diagnosis. Now, what disease is there which is not at all uncommon, which is sometimes chronic, and which makes the whole roof of the pelvis, as in the old woman now in "Martha," like a board? It is chronic perimetritis. Some cases are quite easily diagnosed, but some are extremely difficult to diagnose; and I have often told you that, when you hear of a diagnosis being difficult, that may often be translated as impossible: time alone can enable you to decide in many of these cases whether the disease is malignant or not. The chief points on which to rely are the age of the woman and the history of the case and the absence of tenderness. Upon these particulars I shall not further enter, only insisting upon the great difficulty that exists in diagnosing pelvic cancer from chronic perimetritis, especially in the case of a young woman. And the difficulty is enhanced by the fact that even in old women perimetritis of all kinds, including perimetric abscess, may complicate the pelvic cancerous disease.

Before I pass from the subject of pelvic cancer I must mention another case accompanied by rather a rare symptom, discharge of fæces through the urethra. S. N., aged thirty-six, married, has had two children and six miscarriages. The last child was born fourteen years ago. Was admitted March 8, 1878, complaining of pain in left groin which has lasted for fourteen years, but has been much aggravated the last five months. Micturition is frequent and scanty, and with the urine come occasionally air and fæces. The brim of the pelvis is occupied by dense hardness, not tender. On the right side an extension of hardness along the ischial plane and below the cervix, which itself presents no great abnormality. The uterus is fixed in this hardness. Its cavity is of natural length and direction.

This is a case which, if the hardness had not the long promontory coming down along the ischial plane, and other characters which are easily seen, but very difficult to describe verbally, would have been extremely difficult to diagnose

from chronic perimetritis, because the woman was not elderly, and recently child-bearing. The diagnosis was corroborated by the passage of air and fæces through her urethra. The passage of fæces per urethram is a very rare occurrence except in cases of malignant disease of the bowel, and especially the upper part of the rectum and the sigmoid flexure. You are not to suppose that the passage of fæces through the bladder is always the cause of much suffering, yet you would naturally think so. It generally only causes moderate suffering; in some cases, as in this, no suffering is mentioned at all. The passage of fæces through the bladder sometimes occurs in connexion with peri- or para-metric abscess, ending in intestino-vesical fistula. I have several times seen cases of chronic perimetric abscess where the abscess burst into the bowel and also into the bladder. Such cases are diagnosed by their history. Let me caution you against a supposition which I have more than once found prevalent in the minds of practitioners of otherwise great experience—that the passage of fæces through the bladder must of itself be fatal. Nothing of the sort. I have known patients with this infirmity live long lives, and die of other diseases quite unconnected with the passage of fæces through the bladder. It is, however, a rare occurrence, and always, on account of the rarity of its connexion with anything else, suggests the idea of malignant disease. In the case I have just read, the existence of malignant disease was placed beyond doubt by the circumstances mentioned in the history of the case.

Now I come to a class of cases about which our knowledge is still very imperfect, and which, of late years, is getting more and more isolated from the general run, from those that would be called of uncertain seat,—cases of cancer of the body of the uterus. This is easily defined. A case is said to be of this kind if you have noticed it sufficiently early and find the body of the uterus affected by the cancer, while the neck of the uterus, so far as it is accessible, is healthy. It is a disease the rarity of which is exaggerated. Among the thirty-nine cases that I have mentioned, at least four were cases of malignant disease of the body of the uterus. This disease occurs in a variety of forms. I show you here, first, a magnificent specimen, an extremely rare one, of a uterus presenting diffuse, non-deforming, cancerous hypertrophy of the body of the uterus, the neck remaining, so far as the eye unaided, and the finger, can make out, quite healthy—a rare form of the disease.

The patient, an aged woman, began to suffer pain and think herself ill only about three months before she died. Her complaints were occasional attacks of pain in the hypogastrium, and occasional losses of blood per vaginam. She looked healthy for her years. Three weeks before her death she was admitted into the hospital under my care. A mobile hard tumour, of the size of a fœtal head, was felt projecting through the brim of the pelvis into the hypogastrium. It was rounded and not tender. She was seized with ordinary acute suppurative peritonitis, and sank in a few days. Cancerous nodules were found in the lungs and liver. The uterus weighed four pounds and a half, measured eight inches in length, and six inches and a half in breadth. Its cavity, from os tincæ to fundus, measured six inches. The walls of the body were about an inch thick. Examined by a competent histologist, the structure was declared to be that of hard cancer. Its section resembled that of a scirrhous mamma. The lining membrane of the body was thick and villous, only in some parts destroyed. There was cancerous degeneration of the ovaries; and a similar state of some limited parts of the vagina was discovered after death. The cervix, although healthy to appearance and to digital examination, was discovered by the microscope to be the subject of cancerous degeneration. This case was diagnosed as a case of fibrous tumour of the uterus; and, were it occurring in my practice again, I have very little doubt I should again make the same mistake. There are mistakes in medicine of which a man is ashamed; there are others which do not make him blush in the least degree—and this is one of them. I do not know how I could make that diagnosis correctly. The risk of error here is not like that in the diagnosis of a case of cancer of the pelvis; you would never confuse diffuse cancer of the body with perimetritis. The diagnosis is between it and fibrous tumour of the uterus. If you look into books you will see it justly remarked that one of the points of distinction is that in a case of cancer the womb is fixed, and so it is generally; in this case the womb was quite mobile. Here, also, another usual symptom was absent—there was no fetid discharge. There was bleeding, but that is also a symptom of a uterine fibroid. In this case the cavity of the uterus was considerably lengthened, and so it often is in a uterine fibroid. In this case there were fits of pain, and these are not uncommon in a uterine fibroid. You are led to suspect that a case is malignant—and at a first visit it is only suspicion—by regarding the history of the case, the age of the woman (and I may remark that the age of the woman is in cases of cancer of the body of the uterus greater than in cases of cancer of the neck), the presence of an ascitic fluid in the abdomen, and the induration and fixation which can sometimes be made out of neighbouring parts, especially of glands. I have done enough to show you how very difficult diagnosis is in a case of this kind.

I have spoken of elongation of the cavity of the uterus, and it is necessary to inculcate special care in making this out, in catheterising the uterus, as it is often called. In all cases of cancer of the uterus is this care demanded, for then the uterus may be easily transfixed or perforated by the probe; and this is not the case with an ordinary or inflamed uterus. Besides, the transfixion involves little or no danger in ordinary cases. I have known it frequently done, in the same case even, without any evil result. Yet it is always a misadventure to be shunned. The peritoneal wound does not gape or bleed in such cases. It is otherwise in examples of cancer of the body of the uterus, and I have seen the fresh specimen in a case where this gaping wound by the sound proved fatal within a few hours after its production.

Now a few words on the mode of death. A woman with a uterine fibroid is not very rarely affected with chronic peritonitis of various kinds, sometimes causing a collection of peritoneal fluid to occur around it; but this is very much more common in a case of malignant disease of the body of the uterus. In the present case you have another form of peritonitis exemplifying one of the modes of death in cases of cancer that is not very frequently described. Acute peritonitis of all kinds and chronic peritonitis are common with uterine cancer—local peritonitis, general peritonitis, and (the worst of all kinds) the acute suppurative peritonitis, which killed this woman in three days.

Besides peritonitis there are many other forms of death in cancer. It is only a specious concealment of ignorance that leads us to speak, as we often do in cases of cancer, of patients dying from exhaustion. I am very doubtful of that. No patient dies of exhaustion. You may say, "If a patient dies from bleeding, does she not die from exhaustion?" Very well; but that is dying from bleeding—that is, not undefined exhaustion. In the same way you find it often stated that patients die of pain. I never saw anybody die of pain, and I do not believe it occurs. So cases of cancer are said to end in death by exhaustion, as a man is said to die of old age. The truth, barely stated, is that you do not know of what he died. Now, the chief causes of death in cancer are peritonitis, urinæmia, septicæmia, pyæmia, and complications from diseases of veins or important viscera.

The second form of cancer of the body of the uterus to which I will direct your attention is the nodular—a disease which makes the uterus resemble not a single uterine fibroid, but a group of uterine fibroids; the nodules being different masses of malignant disease, deforming the uterus, almost certainly in this form of the disease fixing the uterus, almost certainly projecting into its interior, frequently bursting through and giving rise to bleeding and other fetid discharge, rarely bursting into the peritoneum and giving rise to fatal peritonitis. This second form of cancer of the uterus is not so rare as the former; and here is a case of it.

M. L., aged fifty-nine, has been married for twenty-three years, and has never been pregnant. Complains of frequent and difficult micturition. Has constant pain in the lower part of the back and in the thighs. Has also a lump in the belly, which she says is increasing in size and has been felt for fifteen months. Her pains are severe at night, and she is rapidly losing flesh. Was in July an out-patient, and then had profuse fetid discharge, which has now ceased. Admitted February 22. A layer of ascitic fluid intervenes between the abdominal wall and the tumour in the hypogastrium. The tumour projects most between the navel and the right spina ilii. It is hard and forms part of a large mass, which, projecting from the brim of the pelvis, extends to the left side of the hypogastric region. It is only sensitive, not tender. The cervix uteri, not notably altered, is high up and far back in the pelvis, and forms part of a solid

hardness, fixed, and occupying the upper part of the pelvic excavation, and easily identified with the tumour felt in the hypogastrium. The bladder is not tender, but contracted, measuring three inches from orifice of urethra to fundus.

This example was easy of diagnosis only because the woman was fifty-nine years of age, at which time you do not get fibrous tumours growing rapidly with much pain as in this woman. There was, for this reason, no difficulty in diagnosing this case. There might have been great difficulty had she been a younger woman, and had we seen the case earlier. Then we should probably have had to watch it for a considerable time, for months, in order to satisfy ourselves as to its nature; but in an old woman, to have a tumour growing rapidly, fixing the uterus, pain always aggravated at night, ascitic fluid in the belly, forms a combination of clear indications.

I come now to other forms of cancer of the body of the womb, cancer of the interior of the body of the womb. I have just mentioned to you cases of ordinary (medullary) cancer of the uterus projecting into its cavity. When this happens—and indeed in all cases of cancer of the body of the uterus—you have to keep in view the distinction recently made (but not proved to be well founded) between the fibrous and the epithelial cancers, between sarcoma and epithelial cancer. A sarcoma of the uterus has nearly the same clinical history as ordinary malignant diseases such as I have been describing. Sarcoma is a malignant disease, only its progress seems to be generally a little slower than that of the ordinary forms of cancer, and it seems to be in a slight degree more amenable to treatment by removal. But really this distinction of cancers is too recent to have been fully followed out in its practical details.

The great malignant disease of the cavity of the body of the uterus is adenoma, a malignant glandular growth of the mucous membrane. Cases of this kind are not common. The growth bleeds, it distends the cavity of the uterus, fills it up, passes through the cervix, grows into the vagina; and I have seen a case where this malignant adenoma filled the vagina, and, before the young woman's death, protruded at the orifice of the vulva, the whole mass being composed of soft adenomatous tissue. In "Martha" we have had a case probably of this kind. It was sent in as an ordinary polypus, but on examining it, superficially even, it was observed to be very soft and fragile. The stalk went right through the cervix into the body of the uterus, and it was made out at the time of operation to be a case of polypus of the body of the uterus, not a fibrous polypus nor a mere mucous outgrowth or vegetation. On microscopical examination it was found to have all the structure of an adenoma. Dr. S. West found in it not only the uterine glands hypertrophied, and constituting the greater part of its bulk, but he also found in the centre of the tumour some muscular tissue; and a like observation has been made in some ordinary mucous polypi. Of this adenoma we have had no example except the polypus I have been describing.

The last malignant disease of the body of the uterus I have to mention is one affecting its cavity, namely, ulceration. The ulceration seems often to follow a previous condition of villosity. The villosity is destroyed, and ulceration takes its place; or ulceration is itself the commencement. This ulceration affects, like all malignant diseases, chiefly the old; and it has, in the vast majority of cases, the history of a malignant ulceration. But some recent investigations throw doubt upon the exact nature of the disease, although they do not remove the malignant character from its ordinary clinical history. I am convinced that, speaking merely clinically, this disease in old women may be cured, if it is attended to early, by cauterisation by solution of nitrate of silver of the inner surface of the body of the uterus. I have cured several cases of this kind where there was copious discharge which was fetid, and copious bleeding; and in some of which I have felt the seat of the disease with my finger, quite easily distinguished from the healthy surface of the uterus. This feeling the seat of the disease has only been done after dilating the neck of the womb by tangle tent. In such cases, of course, the disease is not—as yet, at least—malignant; and I shall say no more of them. In the more severe cases you may try the same treatment; but when they get into this class they are irremediable. The treatment may check the discharge, and produce great temporary improvement of health. The patients die as in cases of ordinary cancer, sometimes with great suffering, and sometimes with little or none; and after death, examination, as I have just said, leaves considerable doubt as to the cancerous character of the disease. In several cases that I have examined lately there was no disease found except the ulceration of the interior of the uterus, and that not of distinctly cancerous character. In one which occurred in "Martha," there was found no evidence of real cancerous disease. In that case the lumbar glands were somewhat enlarged; but in other two cases even this evidence of extension was absent.

Ulceration of the cavity of the body of the uterus is characterised by great pain in some cases, moderate pain in others, and in still others no pain at all. There are bleedings which are sometimes slight and sometimes severe. The discharge is always immensely copious, not always fetid, and may be purulent or ichorous. The uterus enlarges, and, instead of having little more than a potential cavity, may come to have a cavity as large as would contain an orange. The ulceration extends deep into the tissue of the womb and destroys it; it comes to affect the interior of the cervix, leaving the infra-vaginal portion untouched. It sometimes goes on to perforate the peritoneum, and in this way it may prove rapidly fatal; but I have seen, in one case lately, the perforation met by adhesions, so that there was a peritoneal cavity or abscess connected by a fistula with the interior of the uterus. These peritoneal cavities get filled, of course, with the same filthy discharge which fills the interior of the uterus. The disease is easy of diagnosis. If you think proper you may go the length of dilating the cervix, so as to pass your finger in to feel the interior, and you may dilate the cervix for purposes of treatment—to wash out the interior of the uterus, and to cauterise it, if you think proper, with nitrate of silver or tincture of iodine. In all the cases which I have seen the disease has run a more or less rapid course, ending in death.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON

THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

(*Continued from page* 204.)

INDIAN DIETETICS.

Food of Europeans.—Although the provision made by that admirable service, the Indian Commissariat, for rationing our Armies in time of war are proverbially excellent, our men have, on several occasions, suffered much from want of proper food when campaigning. During the last Burmese Wars nearly all disease was complicated with Scorbutus; and Scurvy was almost universally prevalent among the heroic defenders of Lucknow. My friend, Sir Joseph Fayrer, tells me that so extreme was the want of all garden vegetables—except a very scanty supply of the English kinds in tins and bottles—that some of our men used to brave the never-ceasing fire of the enemy to gather *saj* (a wild spinach which sprang up scantily among the *débris* of their shattered defences) that they might sell it, weight for weight against silver, for the starving ladies and children. Our activity in annexing and colonising distant territory has frequently been so great as to outrun our means of providing sufficient food for the new occupants. This was the case in Scinde, of which I have already spoken as a district notorious for Scurvy. For a long time after we formed stations in British Burmah, the want of adequate supplies of fresh meat, and the almost entire absence of fruits and vegetables, were very severely felt. When I went through the province of Assam, in 1866, there was no baker's bread at any of the stations above Tezpore; rice and biscuit, brought up from Calcutta in the steamers, supplied its place whenever I was entertained by my brother officers. When I reached the large station of Dibroghur, the report that there would be beef for dinner that day was causing unusual excitement among the European residents.

These are, however, very exceptional instances as regards India generally, where the supply of food is so good and so

varied that excess, rather than want, is our danger. The European in India is most fortunate in his cooks, and the want of such service is one of his severest trials in his retirement at home. The philosopher who defined man as "a cooking animal" certainly had not in view our otherwise excellent sisters the women of England! In India, every native man and woman is a "good plain cook," and every *bowurchee*, however unskilled, sends daily to his master's table such a dinner as places in great danger of becoming a gourmand the ex-student who has for years grown more and more dyspeptic in battening upon the smoked and scorched flesh with which his lodging-house drudge has provided him. Still, unless the Indian master be constantly upon his guard, his table servants will lose no opportunity of placing before him the very bad meat and fish with which India abounds. The ancient sages, who made the eating of grass-fed beef and measly pork a breach of religion to the Hindoos and Mohammedans, were clearly masters in sanitary science. Such beef as this is best judged by the physician, who attempts in vain to obtain good beef-tea out of its fibres. I recollect, with disgust, a splendid mess-table, for the support of which the officers paid £250 a month, groaning with viands not one of which a man experienced in Indian food would dare to eat. No fresh pork, except that which has been fed by reliable Europeans, ever appears on a gentleman's table in India; but the poor Portuguese half-castes eat a great deal of diseased bazaar pork, and our European soldiers used to consume it to the manifest detriment of their health. Except for a short time at the very hottest season, when fowls, oxen, and sheep fall out of condition, and when the best food is fish, our servants, in the large cities, can always give us good chickens and pigeons, and well-fed beef and mutton, if we absolutely insist upon having them.(a)

Anyone who imagines that Indian heat spoils our appetites is greatly mistaken; and many who, in England, have been accustomed to dine off a plain joint and pudding, and to take little beyond an egg or a rasher with their bread-and-butter at breakfast, often fall into the great error of eating highly-seasoned meats at each of their three daily meals. I recollect saying to a healthy-looking acquaintance, "How is it possible to eat a heavy tiffin and a full dinner? No man can eat two dinners a day." His reply was, "I have done so for a good many years." He soon afterwards had to leave with liver disease. A neighbour of his, who lived very similarly, had a liver which reached nearly to his pelvis. I have seen almost as much disease among mess-managers, who are generally admirable judges of food, as among canteen serjeants, who are unfortunate in having constant access to alcoholic drinks.

I do not at all mean to say that gluttony is common in India, but the free provision of rich meats at each meal is a source of danger to all, and proves a snare to some. For many years my only meals were *chota hasree* of tea or coffee and cold toast in the early morning; a fish breakfast, after my visits, at ten or eleven; and a hearty English dinner at seven. Most people would require a biscuit and a glass of wine intermediately.

Many years ago my friend, Mr. Charles N. Macnamara, published a short report,(b) which, although many changes have since occurred in the mode of living of European soldiers, contains facts well deserving the attention of every Indian pathologist in the present day. While doing duty for six or eight months with the 1st European Bengal Fusileers, he made post-mortem examinations in twenty-four cases, and found that there was an abnormal (fatty) condition of the liver and kidneys in all, with the exception of one solitary instance, which was that of a young man who died of an acute disease, after having been only six months in the country. What is even more remarkable, three of these twenty-three cases proved fatal from rupture of large vessels—in one instance of the superior vena cava, in the others of the thoracic aorta—which had become the seats of fatty degeneration. In accounting for this remarkable tendency to fatty degeneration of vital organs among young and vigorous soldiers, Mr. Macnamara showed that, with an European regiment in India, the daily allowance to each man then being a pound of meat, a pound of bread, half a pound of vegetables, and a quarter of a pound of rice; the men added to this most liberal ration one pound of always most inferior meat (often common bazaar pork, afterwards forbidden in General Orders), and one pound of vegetables, and often rice also. So that each man consumed, on an average, seventy-six ounces of food per diem; whereas the average consumption by a man of the Royal Navy was then but thirty-five ounces daily, although, in the performance of his duty, he was always compelled to take a large amount of muscular exercise in the open air, whereas the European soldier in India was then in a situation which, unless when on active service, required him to use but little muscular exertion, while he was exposed to the influences of a climate which, from its very nature, would compel him, if he wished to preserve his health, to live in the most moderate way possible. He then proceeded to show that, while consuming this excessive quantity of hydro-carbonaceous food, the men's systems were, by their manner of living, placed under the most unfavourable circumstances possible for eliminating hydro-carbons (a hot, close atmosphere, want of exercise, and too much sleep), the excess of which must, consequently, be retained in the body. It was said of the European soldiers of that time, by another writer, that, all through the hot days, they did nothing but lie on their beds and curse! Mr. Macnamara observed, "If we consider the ordinary routine life of a private in the 1st European Bengal Fusileers, we shall see how greatly the action of the lungs, as eliminators of carbon, must be impeded. After sleeping through the night in the very close hot air of the barracks, he rises at gun-fire and goes to parade, after which he commonly employs himself in cleaning his accoutrements till breakfast-time (eight o'clock); this meal over, he lies down and sleeps till dinner-time; and after dinner he generally retires to bed again, and sleeps, more or less, till five, the temperature of the barracks being frequently as high as 104° at this period of the day." He mentioned this particularly, because it is after taking food that the lungs are most active; if, therefore, heat and sleep diminish their activity, we see at once how small an amount of carbon will be exhaled from them when their functions ought to be least impeded. About five o'clock, the private had to prepare himself for parade; this over, he sauntered about till half-past nine, and then turned in for the night. Of course there were a few exceptions—some half-dozen to a dozen men taking active exercise every day—and these few were invariably found to be the most healthy men in the regiment. "The men, then," Mr. Macnamara added, "are placed in the same circumstances as animals which are to be fattened; that is, if we want to fatten an ox, we should keep him in a warm shed, allow him to take little or no exercise, so that no wear of the tissues occurs; and, owing to the same cause, a minimum of oxygen enters his system, so that the nitrogenised part of the food is stored up as flesh, and the elements of the starch and gum are unburnt, and stored up in the form of fat." At about that time, Mr. Gant wrote upon the evil results of over-feeding cattle, and there was clearly shown to be a very remarkable pathological parallel between the condition of these over-fed and under-worked young soldiers, and that of the over-fattened prize-cattle of the London markets. Some years before Mr. Macnamara made the above observations, I wrote:(c)—

"I have long held that several of the forms of visceral disease which destroy most lives among Europeans of all classes in India are—even where nothing amounting to what would generally be regarded as excess, either in eating or drinking, is incurred—mainly dependent upon a system of dietetics which is the very worst and most unphysiological that could possibly be adopted in a tropical climate, that meat, spirits, and beer, which are evidently among the absolute necessaries of life among the denizens of a cold climate, where a large supply of highly carbonised material is required by the system, are, although not altogether to be dispensed with, used too largely even by temperate Europeans in India, and that it would be impossible to devise a mode of living more directly calculated to promote that most certain and deadly form of vital decay which determines the formation or increase of fat in the secreting

(a) At out-stations, where the European residents do not maintain a "mutton-club" by subscription, such notices as this, which I give *verbatim*, frequently appear: "Raj-ub-Ali, butcher, presents his compliments to the Nobility and Gentry of Chittagong. On Monday next he will kill a fine *gram*- [bean] fed ox, with plenty of lean on his beef."

(b) "Fatty Degeneration of the Liver and other Organs, considered as the chief cause of the High Rate of Mortality among the European Troops of the H.E.I.C. in Bengal" (*Indian Annals of Medical Science*, October, 1855, page 17).

(c) "A Practical Treatise on the Management of Diseases of the Heart and of Aortic Aneurism, with especial reference to the Treatment of those Diseases in India." Calcutta, 1861.

apparatus of the liver and kidneys, and in the muscular tissue of the heart, than that which necessity, rather than choice, imposes on many Europeans during their residence in the East."

Many and great reforms in the mode of living of our European soldiers in India were inaugurated soon after Mr. Macnamara placed the above observations on record. The men were not allowed to make Strasburg geese of themselves, and workshops, schools, reading and coffee rooms, theatres, concerts, lectures, etc., were provided for them, and they were encouraged to spend much of their leisure in cricket, tennis, and other manly exercises. It is still an error in the condition of regimental officers that they have too much leisure in time of peace; still, as a body, they lead active and intellectual lives. To the staff, and to all officers in civil employ, our benevolent Government afford so large a measure of work, under unrelaxing supervision, that it can rarely be said of them that "their eyes stand out with fatness, they have more than heart could wish."

Still, the above observations are full of practical suggestiveness to every medical man now in India, as displaying, in their most aggravated degree, the pathological conditions which a life of excess and indolence would produce in that country, and as throwing great light upon the causation of many otherwise obscure cases of visceral diseases occurring in the present day.

I have never questioned that it would have been better for many of us if we had gone to India vegetarians and teetotalers, and had always adhered to those practices. Still, good food, and beer and wine in great moderation are valid aids to efficient bodily and mental work in that climate; and I have seen many instances in which injudicious attempts to "Bant," and to drop accustomed stimulants suddenly, have led to serious constitutional break-downs. The Government expects us, in giving medical certificates to its officers, to state whether their habits are temperate. In the case of a notoriously free-liver, we best avoid offence by writing "Habits generous."(d) A (wine) quart bottle of Bass's pale ale is a fair daily allowance for him who works moderately. He who drinks two bottles is, unless he takes great exercise, as some indigo and tea planters do, a "generous" liver, who will probably soon fall ill.

Beer, drunk in strict moderation, with abundance of ice, generally agrees well, preventing constipation. A great deal of spoilt bottled ale is always for sale in the bazaars, and is, of course, most pernicious. An officer of Engineers told me that, being on duty with another officer in the bazaar at Cawnpore when the heat was excessive, they asked a petty dealer for two pint bottles of ale. The unhappy man for whom the first bottle was opened drank off its contents at a draught, saying, "It is vile stuff, but I was so thirsty!" He died of cholera in a few hours. His companion, seeing that the beer was quite muddy and "gone," refrained. Claret is, doubtless, a wholesome drink in India. It has long been observed that, although acute hepatitis is generally prevalent in the Madras Presidency, the French at Pondicherry, who are, for the most part, moderate claret drinkers, are remarkably free from this malady. But good sound claret is an expensive drink in British India, and a very thirsty man is easily led beyond the bounds of temperance when claret is his beverage.

It is often a matter of serious difficulty to find wholesome *Drinking-Water* in India. Delhi, where the water-supply has always been bad, is notorious for the prevalence of bowel-complaints among new arrivals; and Calcutta has the same character. The whole of that vast spread of level country which lies between the Damoodah River, west of Calcutta, and Dacca, on the east, is saline, and none of its water, except rain-water collected in well-puddled tanks, and that taken from its large rivers above tidal influence, is drinkable. The native patients who crowd our Cholera wards in Calcutta are generally strangers from the country, and we found that most of them had preferred the foul water of the river, wells, or neglected tanks to the excellent water-supply which is now open to all in that city. Very few Europeans are attacked with cholera in Calcutta, with the exception of sailors lately arrived, many of whom, we ascertained, had drunk river-water drawn over the ship's side. Much disease has been found to arise from drinking bad water in hasty marches. It is a general popular belief that paludal fever is often caused by drinking the water of neglected tanks. It is, however, difficult to prove this. I have already spoken of the extreme prevalence of intestinal worms among the native poor in Bengal. Sir Joseph Fayrer's admirable review(e) of modern research into the causes which lead, in tropical climates, to the development of hæmatozoa, has come so recently before the profession that it is needless that I should here do more than say that whoever wishes to keep his blood free from *filariæ sanguinis* and his integuments and intestines uninvaded by dracunculus and lumbrici, will spare no expense in obtaining his drinking and bathing water from the best sources, and in having them both boiled and carefully filtered before use. For many years I took these precautions with all our drinking-water (Guinea worm does not prevail in Bengal). The best water was boiled and filtered, and then again boiled, and drunk mostly as weak tea, a bottle of which slung across the shoulders affords the best and most refreshing supply on the march.

Native Dietetics.—It cannot be doubted that, in many respects, the diet of rice, wheat, lentils, and oil, used by the majority of the natives of India, is well suited to the climate and to their constitutions. Many Europeans have imitated them in this respect, with advantage, especially during the hottest months. And, most assuredly, the native of India who, upon conversion or change of opinion, begins to live "generously," after the manner of some Europeans, is disastrously in error. The great defect in the orthodox Hindu's diet, as well as in the food of the low-castes generally, is its poverty. If it contained rather more animal material, or if the people could afford to allow themselves a larger supply of vegetable oils and good pot-herbs, and plenty of the best fruits of the season, it would be greatly improved; and if they could obtain *ottah* (wheat flour) for one of their two daily meals (which they are always glad to do), the Bengalis would soon rival the Up-Countrymen in courage and strength. As the potato has impoverished the South of Ireland, so rice maintains perpetual semi-starvation in Bengal. I lost no opportunity of urging the national importance of increasing to the very utmost the cultivation and sale of wheat in Bengal, but it is to be feared that nothing has been effected in this direction, and that our industrious and intelligent brethren, the Caucasian natives of Bengal, will, for many generations to come, go on enduring the miseries of chronic famine upon that very bad and insufficiently nutritious staple of diet, new(f) *dasee* (common) rice. Physically, the poor rice-feeding Bengali presents a singular contrast to the well-to-do Mohammedan, who eats plenty of flesh-meat and fish. I have before me a Hindu and a Mohammedan skull, very carefully selected in our Calcutta dissecting-room. The difference between these is almost as marked as that between china and crockery-ware, so delicate in structure, so smooth, and almost feminine in character is that of the grain-eater, in comparison with the strong, rough, and coarsely-lined development of that of the flesh-feeder. Here, clearly, the remedy lies with the statesman and the landholder, not with the sanitarian and physician.

Much of the stone in the bladder which prevails so extensively in the Upper Provinces might be prevented if the use of baker's-bread (*paon rōti*) could be generally introduced in place of the unleavened chupatties (*hath rōti*) which there form the staple of diet.

As Brahmin cooks are entertained in all our native hospitals, the nourishing food which so large a majority of our patients require, and which we give them freely in accordance with European dietetic rules, is very seldom refused. About once in six months I found an extremely orthodox Hindu Up-Countryman obstinately refusing the hospital food. This difficulty was generally met by dieting one of his friends, who cooked for both. Very orthodox Hindus of rank are often very hard to manage, dietetically, in low forms of disease requiring good nourishment. They often refuse milk; and, even if they could be persuaded, in Calcutta, to take the broth of a kid killed by the Brahmins

(d) One of my junior brother officers endeavoured to protect an intemperate patient by writing "Habits industrious." The Surgeon-General returned the papers, through me, with one of the sharpest reprimands that it has been my fate to convey.

(e) "On the Relation of Filaria Sanguinis Hominis to the Endemic Diseases of India" (*Medical Times and Gazette*, February 8, 1879, page 137).

(f) All rice is unwholesome until after it has been kept for at least a year. The poor cannot afford to store their rice, and so have to eat it soon after it has been cut; the consequence is chronic intestinal irritation.

at Kali Ghaut, I have repeatedly seen it produce such unfeigned disgust, that I have been compelled to discontinue the attempt. In native hospitals the full diet is generally a good supply of the best food of the district, including flesh, and fish, and vegetables, with abundance of milk, and a full allowance of *ghee* (clarified butter) and vegetable oil and spices. Oranges, limes, and other wholesome fruits, are given when needful, and wine and rum are freely employed. In India the rum must be old; new rum is rendered almost poisonous by the presence of fusel oil. In the low diets, milk, broths, soujee, curds (*dhye*), and English bread (scarcely to mention sago and arrowroot, in which I have little faith) are most employed.

(To be continued.)

OBSERVATIONS ON

CONGELATION, FLUID PRESSURE, AND THE TREATMENT OF CANCER.

By JAMES ARNOTT, M.D.

(Continued from page 347.)

FLUID PRESSURE.

Pressure on the surface of the body is a valuable remedy in various local diseases, but it often fails from the imperfection of the means employed for executing it.

When this external pressure is produced by water in a bladder or thin caoutchouc cushion kept in close contact with the body, it will often prove remedial when that of a bandage is inadequate or inapplicable. Fluid pressure excels by its equality and uniformity, by the ease with which it can be immediately lessened or increased by lowering or raising the reservoir of water which fills the cushion; and, above all, by the power which it gives when the water is made to pass as a slow stream through the cushion, of combining with its action the important principle of regulating with precision the temperature of the compressed part. The form of the instrument possessing the last of these qualities will, under the name of the "current apparatus," be described in the next section. A misapprehension that the trouble attending its construction and use would not be compensated by its advantages over simpler means, has prevented its general adoption. Cases reported in different publications by the author, in which other treatment had been found of no avail, prove the fallacy of this objection.

The pressure required for the dilatation of passages or canals has been usually made by instruments having the action of wedges. There had been attempts made, both in ancient and modern times, to effect this purpose by inflating a membranous tube placed in the canal; but in consequence, probably, of the erroneous estimate of the value of fluid pressure, or of its great advantages just enumerated, with the additional one, as respects this use of it, of the pressure being eccentric, no endeavour appears to have been made to construct an instrument capable of carrying out its principle. When, after many trials, I had succeeded in making an efficient fluid dilator, it was evident that it could be adapted for various purposes mentioned in my first publication on the subject, namely, the treatment of stricture of the urethra, extracting stone from the bladder, and for executing several dilatations required in obstetric surgery. Other applications of the same principle are seen in Dr. Neil Arnott's most valuable water-bed, and in his mode of equalising the pressure made by a steel spring in the treatment of cancerous growths.

The introduction of fluid pressure effected a great and beneficial change in the treatment of stricture. The remedies which had been previously in use were either merely palliative, or, if a cure was attempted, hazardous. The publication of reports of cases treated by various degrees of the eccentric or lateral pressure of a fluid was followed by the invention of simpler methods of producing the same kind of pressure, by M. Perreve and others, which speedily led to its general adoption. Reflection on what constitutes a valuable circumstance in this application of the fluid dilator—namely, that its action is confined to the contracted portion of the canal—suggested the construction of an instrument for the safe incision of strictures that do not yield to moderate pressure, which is described by the author in the *Medical Times and Gazette* for September and November, 1861. By strictly limiting the incision to the stricture—which with this instrument the surgeon cannot fail to do,—the risk attending forcible dilatation or rupture, from the excitement of excessive irritation, and that attending incision, from the hæmorrhage caused by the urethrotomes generally employed, are wholly avoided.

Fluid pressure has not been so extensively used in gynæcological practice as it probably might be with great advantage. It has been employed for inducing premature delivery. We owe our knowledge of its value for this purpose to the investigations of Drs. Barnes, Keiller, and Storer, who were independently, and almost simultaneously, led to these by Mr. Spencer Wells' account, in the *Medical Times and Gazette*, of the use of fluid pressure in a case of stone.(a)

The revival of the ancient method of removing stone through an opening in the perineum by dilatation of the neck of the bladder, was a consequence of the invention of the fluid dilator. What was required was a means of effecting sufficient dilatation without exciting dangerous irritation. The instrument was first used for this purpose by Sir Astley Cooper. Others had recourse to it in some subsequent cases; but, owing to the faulty construction of the fluid dilators which they employed, and the trouble of managing them, simpler means were after a time substituted, with the effect, from their insufficiency, of rendering this method only eligible in the cases of children. The best solid dilator is that contrived by Professor Dolbeau, of Paris. The pressure produced by it being more equal than that of the others, is consequently less irritating; but the degree of dilatation effected by it is so limited as to render it necessary to break the stone in order to extract it, in almost every instance.

The fluid dilator employed by Sir Astley Cooper in the operation referred to (at which the writer assisted) was far from being so perfect as it afterwards became. It might be still further improved, and its action rendered less irritating and more easily borne, by an alteration in its construction for permitting a slow stream of very cold water to pass through the membranous tube either continuously or at intervals. Such a proceeding would be complex, but if it should render dilatation successful in the cases in which neither lithotomy nor lithotrity can be resorted to without great danger, its complexity would not be considered an insurmountable objection. Another expedient for preventing irritation and its consequences, which might be employed both in this operation and in lithotomy, would probably be found in the congelation of the bruised or cut parts. This could be done after the removal of the stone, by placing in contact with them, for a few minutes, a thin metallic or membranous tube of suitable dimensions, containing a strong freezing mixture.

(To be continued.)

CASE OF ACUTE YELLOW ATROPHY OF THE LIVER, WITH REMARKS.

By CHARLES J. EGAN, A.B.T.C.D., M.R.C.S.E.

As there are not many cases of acute yellow atrophy of the liver on record—and it may be considered as one of the rarest of diseases of the liver—I send you notes of a case that recently occurred in my practice.

On the morning of June 28, 1878, I was called to see Mrs. P., aged twenty-six years, who had arrived in town the previous evening. She had been married on the morning of June 27 at about the usual hour, viz., 11 a.m. When I first saw her she appeared to me to be suffering from hysteria; she was shy and hesitating in answering questions, and had nervous twitching of the hands and arms. Pulse 100; tongue slightly furred; bowels confined.

Under the circumstances of her recent marriage, these symptoms did not appear to me any way unusual. I ordered her a rhubarb draught and a mixture of ammonia, valerian, and camphor. She had naturally a dark skin, and I did not observe any unusual change in her complexion; I had previously (about three months before) been casually asked

(a) In a tract on the subject by Dr. Storer, which he kindly sent me from Boston, there are some valuable remarks on the construction of the instrument used for this purpose, and particularly on the advantage of limiting its distension by a silk tube. This would be especially useful in the fluid dilator used by another American physician for the extraction of uterine tumours, in instruments adapted for cases of dysmenorrhœa for which dilatation is a remedy, and those employed for facilitating labour.

to prescribe something for her, for habitual constipation and irregularity of menstruation; but that was the only occasion on which I saw her professionally. She had come to the colony from England about a year before, and had enjoyed good health until the time I was asked to see her for constipation. I was told afterwards that some persons had remarked a few days before her marriage that she looked jaundiced; but my seeing her in bed in a somewhat darkened room prevented my noticing it when I first visited her in the morning. I saw her again in the afternoon, and she then appeared to be in much the same state as in the morning. The bowels were not relieved; she was, perhaps, a little duller, and less inclined to answer questions; pulse the same. Ordered a dose of castor oil and to continue the mixture. Called to see her again at 9 p.m., and found her to be in a state of coma, and vomiting a quantity of black stuff, such as is seen in cases of hæmatemesis, or more like what is described as the black vomit of yellow fever. She could not be made to swallow anything. I now observed that she was slightly jaundiced, but not in a very marked degree. On examining the abdomen, found it rather full, with a tumour in the left flank; dulness on percussion extended from the pubis to the ribs, and was of a doughy character; percussion in the region of the liver showed very limited hepatic dulness, only about two fingers deep, along the edges of the ribs. The rest of the abdomen was tympanitic. Ordered a large enema of castor oil and assafœtida in soap and water to be administered. This brought away a large quantity of scybalæ, and the tumefaction in the abdomen appeared to be divided, part remaining in the left flank, the other part being movable and as large as an ostrich-egg, and of the same shape, and was evidently an enlarged ovary. The other swelling was evidently produced by a collection of fæces in the colon. I then gave an enema with the long tube, passing the tube more than ten inches into the bowel, and at the same time used friction with my hand over the tumefaction in the left flank. This brought away a large quantity of fæces, and the tumour evidently was much reduced in size. Nothing could be administered by the mouth. She now had a slight attack of convulsions, and the coma increased, the black vomiting continuing. She lived about an hour after this, dying in an attack of convulsions like a tetanic spasm, which came on while I was endeavouring again to pass the long tube into the bowel to wash out the remainder of the fæcal accumulation. No post-mortem examination was allowed.

I think there can be little doubt but that this was a case of acute yellow atrophy of the liver. The habitual constipation and the fæcal tumour resulting from it were probably the original cause of the jaundice, which I consider the patient must have suffered from for some time previous to her marriage, although it was not taken notice of by her friends. At this time, also, there were an unusual number of cases of hepatic disease and fever prevalent in the town and district, brought on by the great heat and drought from which the country was suffering, and the consequent want of vegetable food; and also the overcrowding of the town in consequence of the Kaffir war. The large ovarian tumour may be considered as a predisposing cause, acting in the same way as pregnancy is considered to do; and the nervous excitement of marriage was most probably the exciting cause of the fatal attack.

We have, therefore, present in this case five of the causes considered by Dr. Murchison (in his work on the Liver) as predisposing to acute yellow atrophy. First, her age being under the middle age—viz., twenty-six years. Secondly, her sex. Thirdly, the tumour of the ovary acting in the same manner as the enlarged womb in pregnancy would do, and which was also most probably the cause of the suppression of the menstrual flow, and thus adding a morbid material to the blood. Fourthly, the nervous excitement of recent marriage (and there is no doubt but that in many cases of girls who have been carefully brought up there is a perfect ignorance of marital intercourse; and in such there is more mental excitement produced than is usually supposed to be the case). Fifthly, the bad state of the blood and system in general, resulting from habitual constipation and a large collection of fæces in the colon. Such collections in the bowels act very injuriously on the constitution, and in many cases where such collections exist, an attack of any form of illness, but more especially of typhoid fever, is very much aggravated.

Indeed, one is almost inclined to admit the truth of the theory of the spontaneous generation of typhoid fever in persons long subject to collections of fæces in the bowel. I have met with cases of continued fever, which presented all the peculiarities, and followed the usual course, of typhoid or enteric fever, and in which I could account for the origin of the disease in no other way; but I have never had an opportunity of verifying this opinion by a post-mortem examination. For instance, last month I was called to see a girl (Mary G., aged fourteen years) suffering from continued fever. She had been delicate for a long time, subject to constipation of the bowels, and occasionally attacks of diarrhœa. When I first saw her she had been laid up for three days in bed. Her skin was dry and hot, dusky and muddy in appearance; pulse 100; tongue furred, red at tip and edges; bowels confined. She gradually became worse—pulse rose to 140; temperature 102°; very delirious during the night, heavy and stupid during the day, also deaf. On the twelfth day of her illness, well-marked rose spots (about twenty in number) came out over the abdomen and chest: the tongue became dry, with hard brown fur on it; and there was well-marked crepitus and tympanites in the ileo-cæcal region. She died on the fifteenth day after the supposed commencement of her illness.

This case presented all the characteristics of enteric fever except diarrhœa, but this is a symptom that in some cases does not come on until after the twelfth or fourteenth day of the illness. In examining the ileo-cæcal region in this case, I observed that there was present a hard substance, round and curved, and about the size of the little finger, and apparently produced by some accumulation, in the vermiform appendix. I have lately noticed this occurrence in two other cases of undoubted enteric fever, and in both violent hæmorrhage from the bowels took place. Both, however, eventually made a good recovery.

In the case of Mary G., the patient resided in a boarding-school, and slept in a large, well-ventilated dormitory on an upper floor (in which ten other girls slept). It was a perfectly new building, only erected last year, and ventilated on Tobyn's principle. There were no sewers, and the closets were well removed from the house, and the dry earth system used. The water was free from any suspicion of typhoid contamination. Only one other case of simple continued fever occurred before or since in the establishment. In this case it looks as if the blood-poisoning must have been caused by self-generation from the fæcal accumulation in the large bowel; and whether it may be looked upon as simply a case of continued fever or enteric fever, there is little doubt but that the blood was in a poisoned state from the absorption of fæcal matter.

The muddy complexion, pimpled skin, furred tongue, and foul breath, met with in persons subject to habitual constipation, sufficiently show that their blood must be in a very unfit state to throw off any slight quantity of additional poison introduced into it; and must render such person a very bad subject indeed to resist disease in any of the blood-purifying organs such as the liver.

Besides all these causes to account for this case of yellow hepatic atrophy, we have also to take into account the epidemic constitution of the season; for more cases of bilious fever, congestion of the liver, and jaundice have occurred during the last nine months than in any previous year since I came to practise in the colony—viz., in 1857.

King William's Town, South Africa.

PARIS MEDICAL JOURNALS.—The number of journals relating to the medical sciences, published at Paris, amounts to eighty!—*Lyon Méd.*, March 7.

STATISTICS OF ITALIAN STUDENTS IN 1878-79.—The Italian Minister of Public Instruction has just published the statistics of the students and other auditors registered at the universities of the kingdom of Italy for the year 1878-79. The total number of students is 9329, and of other auditors, 699; total, 10,028. The 9329 students are thus distributed:—Jurisprudence, 3663; medicine and surgery, 2886; mathematical, physical, and natural sciences, 1373; *belles lettres* and philosophy, 257; pharmacy, 560; pupils of notaries and lawyers, 168; first degree of surgery, 25; midwives, 297; veterinary medicine, 71; agriculture, 29.—*Union Méd.*, April 1.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

PARALYSIS OF THE LEFT SIDE OF THE FACE DUE TO SYPHILITIC DISEASE.

(Under the care of Dr. BROADBENT.)

S. D., aged twenty-seven years, a married woman, was admitted in the beginning of February. The following notes of her history and symptoms are from the report of the ward clerk, Mr. K. W. Millican. Patient was the youngest of a family of twelve children, all of whom were healthy. Her parents were alive and strong. She herself had had no illness of any importance until her marriage, about three years before. When first married, her husband was under medical treatment for a considerable time, suffering with pains in his limbs (said to be rheumatic) and with ulceration of the throat. Soon after marriage, patient had a rash of some kind, principally showing itself about the neck and shoulders. The glands about her neck became enlarged; she suffered from pains in her limbs and partial loss of power in her right arm; and, becoming pregnant, she was delivered of a stillborn child. About six months before admission, when she was in about the seventh or eighth month of a second pregnancy, she began to lose power over the left side of her face, and at the same time had double vision. Violent neuralgic pain and a sensation of coldness about the head followed, and subsequently the left side of the face became swollen and deficient in sensation. She also complained much of giddiness, of difficulty in swallowing, and of pain in the eyeballs on being exposed to light. She was easily fatigued by talking, and had slight otorrhœa of the left side.

When admitted, patient was a fair-complexioned, well-nourished woman. Sensation was absent on the left side of the face, except in the course of the facial artery. The left half of the tongue and the inner side of the mouth on the same side were also deficient in sensation. There was ptosis of the left eye, with some amount of wasting of the left temporal and masseter muscles; elsewhere sensation was normal. She had some leucorrhœal discharge, which had existed since her marriage. She complained of great headache, chiefly in the right temple. She stated that her memory was becoming bad, and that her articulation was less distinct and more difficult than it used to be. Her sight was failing; she had lost the sense of taste except for strongly flavoured substances, and was somewhat deaf on the left side. Her sense of smell was also deficient.

On examination by the ophthalmoscope the optic discs were found to be quite normal. Iodide of potassium in sixteen-grain doses was ordered to be given with cinchona three times a day.

February 12.—The ptosis is more marked than on admission, and there is some want of co-ordination between the movements of the two eyes. The left side of the face is cold, and she complains of pain in her eyes.

21st.—The ptosis is not so complete, and there is some improvement in sensation of the affected part.

22nd.—Sensation on the left side seems again to be more impaired. Food lodges between the teeth and cheek, and patient is unaware of its presence, and cannot remove it by voluntary facial movements. To-day Dr. Broadbent has ordered the application of the continuous current in the course of the left facial nerve.

March 6.—There has been very decided improvement under the treatment by the continuous current. The use of the masseter is returning, and sensation in the lower part of the face is much better. Patient will leave the hospital on March 8, to attend for further treatment as an out-patient.

GENERAL MOTOR AND SENSORY PARALYSIS FOLLOWING SPINAL INJURY.

(Under the care of Dr. BROADBENT.)

Edward B., aged thirty-eight years, a farm labourer, was admitted on February 19, 1879. He states that about seven years ago he fell from a horse, striking his back on a hard gravel path, but did not feel any special ill effects following the fall. Two years ago he again fell from a horse, and struck himself rather violently on the right side. At the time he felt a feeling of constriction about the abdomen, as though a cord had been tied round the body about the umbilicus. This feeling remained until admission. Six months before admission his wife noticed a heaviness in his gait; he found himself less able to walk long distances than formerly, but continued at his ordinary work for about three months after this, when he was obliged to lay up in bed. He noticed in succession loss of power over his left arm, over his left leg, and difficulty in breathing. His right arm and right leg were afterwards affected. During the three months before he came to the hospital his urine either dribbled away or was drawn off by a catheter. When admitted there was entire motor paralysis of the upper and lower extremities. Breathing was entirely diaphragmatic. Sensation was not entirely absent, but patient was unable to appreciate the nature of the stimuli applied. He could articulate distinctly, but there was a "catch" in his breath on speaking. Powerful muscular contractions were obtained both on making and breaking the galvanic current. There was no facial paralysis, but there was slight impairment of sensation about face and neck.

February 24.—The thermal cautery has been applied down the spinal region on the left side. There is some slight power of movement in the right arm and leg, but none at all on the left side. His voice is weak, but speech is perfect. He complains neither of pain nor hyperæsthesia anywhere. There are no bedsores. The urine has to be drawn off. Calomel half a grain ordered to be given twice a day.

27th.—All the muscles are being gently stimulated daily by means of a moderate continuous current, to which they readily respond. The gums are slightly affected by the mercury, which has been reduced.

March 5.—The thermal cautery has been again applied to the spinal region. Patient's voice seems stronger; and the muscles respond well to the galvanic current. General sensation is improved, and there is more movement of both the right arm and leg. His appetite is bad.

12th.—A small subcutaneous abscess has appeared about two inches below the umbilicus. This is being poulticed. There is also some redness about the left ischial tuberosity.

15th.—The abscess near the umbilicus has healed. The thermal cautery has been again applied. Patient's voice seems better, and his appetite has improved. The movements in the right arm and leg seem to be more decided. Gentle stimulation of the muscles with the constant current is still being practised daily. The bladder is occasionally washed out, to the patient's great relief, with a very dilute solution of carbolic acid.

27th.—Patient still remains in hospital under the same treatment. The alteration cannot be said to be very marked, but his general condition remains fair, and what change there is is in the way of improvement.

KING'S COLLEGE HOSPITAL.

A CASE OF ACUTE PULMONARY TUBERCULOSIS.

(Under the care of Dr. DUFFIN.)

[For notes of the following case we are indebted to Mr. Valentine Matthews, Resident Medical Officer.]

John H., aged forty-three, a butcher, was admitted on February 27, 1879. He stated that until about twelve months ago he had always enjoyed fairly good health. About that time he caught cold, and had suffered since from cough, with occasional slight hæmoptysis and night sweats. Beyond this there was no account of any lung mischief, acute or otherwise, and his family history was apparently good. Patient himself had been a free drinker of beer and spirits. About a week before admission he had an attack of shivering, and complained about the same time of intense dyspnœa; of some pain at the epigastrium, and of loss of appetite. The day before admission he was sick.

On the evening of February 27, patient's temperature was 103°, his breathing was 48, his pulse 100. Expectoration was copious, frothy, and free from any tinge of blood. At the left apex there were signs of consolidation, and over the whole left lung the percussion sound was somewhat flat. On the right side slight crepitation could be made out over the upper lobe, but the physical signs bore

no relation to the amount of distress exhibited by the patient. The heart seemed normal, and there was no increase in liver-dulness.

March 2.—Patient has had little sleep. Last night his temperature reached 105·2°; this morning it has fallen to 102°. The dyspnœa continues great, and cough is very troublesome.

4th.—There is distinct tubular breathing to be heard in the second right intercostal space, and, notwithstanding the administration of chloral (twenty grains), and the injection of a quarter of a grain of morphia, patient has had very little sleep. He remains weak, and cannot bear much examination.

12th.—Temperature has been ranging from 100° to 102°. There are now abundant crepitant sounds to be heard all over the left lung, and over the right upper lobe. The face and hands are cyanosed. A crop of herpes which has been present about the lips since shortly after admission still persists.

18th.—Patient has been very restless at nights, and has been delirious. His condition does not permit of full examination, as he is evidently sinking. The temperature has continued to run from 100° to 102°.

23rd.—Patient died this afternoon. The case was diagnosed at an early stage to be one of acute tuberculosis, but the physical signs were at no time very marked as compared with the urgency of the symptoms. The very slight nature of his previous illness, and the absence of any information as to hereditary tendencies, presented difficulties as to the causation of the disease. The crop of herpes—common enough in slight catarrh and in pneumonia—which appeared about the lips was an occurrence which Dr. Duffin had not previously remarked in this form of pulmonary disease.

Post-mortem Examination.—The left lung was found to be adherent throughout to the thoracic walls. In the apex was a small cavity, evidently of old standing, with smooth, thick walls. Throughout the lung were numerous nodules of caseating material, several calcareous masses, and evidences of recent inflammatory action. The bronchial glands were partly caseous, partly calcareous. In the right upper lobe were numerous greyish-white nodules, and the alveoli and smaller tubes were filled with catarrhal exudation. The other parts of the lung were to a less extent also affected. The heart and the abdominal organs were healthy. The brain was not examined.

A CASE OF LUPOID ULCERATION TREATED LOCALLY WITH SALICYLIC ACID.

(Under the care of Dr. DUFFIN.)

Henry G., aged seventeen, was admitted on January 15, 1879. Patient was a well grown but markedly strumous-looking lad. The nose, upper lip, and both sides of the face were red and swollen, the erythematous flush extending as far upwards as the malar bones, and outwards to about the situation of the second molar teeth. The alæ of the nose were deeply ulcerated, and covered with recent exudation. Patient stated that when about four years of age he fell and struck the bridge of his nose against the castor of a table, and that the disease had started at that time, commencing at the spot where he had received the contusion. Patient's father and mother were alive, but he had lost two sisters and a brother from phthisis, and other members of his family were also phthisical. He had himself always been in the enjoyment of good health, with the exception of the disease about his face.

The treatment at first adopted, after poulticing the parts to remove the crusts, consisted in the local application of a salicylic acid lotion, twenty grains to the ounce, and the internal administration of cod-liver oil and nitric acid with cinchona. Subsequently, on February 5, salicylic acid in powder was ordered to be applied to the ulcerated surface. The effect of this application was to make the ulcerated part assume a healthier appearance, and towards the end of March, when patient was still in hospital, the loss of substance had apparently ceased to go on. The margins of the growth had not invaded any new tissue while under observation, and the general health of patient had kept up to a fair standard.

ACUTE NEPHRITIS FOLLOWED BY PNEUMONIA.

(Under the care of Dr. DUFFIN.)

Charlotte A., aged seventeen years, was admitted on February 28, 1879, with symptoms of acute nephritis. There was considerable œdema of the feet, the face was swollen, and the urine was smoky and albuminous. On inquiry, she stated that she had felt ill for about a week, and had noticed the swelling of the feet and face for about the same time. The house she had lived in had bad drains, and she, her mother, and sister, had all suffered from sore throat. There was no history of any eruption having appeared on any of them, but the case was diagnosed as one of nephritis following scarlet fever, in which the rash had probably been slight and had passed away unobserved.

On the evening of admission the temperature was normal, the pulse 96, the respirations 28 to the minute. Patient was well nourished and of fairly good physique.

On March 2, a sixth of a grain of pilocarpin was injected subcutaneously. This was followed by copious sweating for about half an hour, but there was no salivation.

On March 3 and 6, injections of a quarter of a grain of pilocarpin were followed in a few seconds by salivation and profuse sweatings. The free action of the skin was also assisted by the use of the wet pack.

On the evening of March 10, patient complained of headache, was sick, and the temperature, hitherto little above normal, rose to 103°.

On the following morning patient had a rigor, which lasted for about three minutes, and complained of pain in her left side.

On examination she was found to have pneumonia of the left base. She was at this time very weak; albumen still remained in the urine in considerable quantity, and her condition was very unfavourable for recovery from an attack of acute pneumonia. Under the circumstances, Dr. Duffin considered the administration of brandy as a stimulant to be inadmissible, and determined to pursue his previous plan of treatment—to allow the patient to have nothing but an unlimited supply of milk, and to keep the skin freely at work by means of the wet pack. The case is interesting, as the non-alcoholic treatment and the milk diet proved entirely successful. The following notes show the progress of the case:—

March 13.—Patient has been sick all night. She was packed for several hours to-day. Evening temperature 103·6°.

15th.—She has been much less sick. The wet pack is being continued, and the skin acts very freely. Temperature last night 102·6°.

17th.—The temperature this morning was 96·6°. Patient is not now sick, and the breathing is easier, but there is still copious expectoration.

20th.—The temperature remains about normal, and the dulness about the base of the lung is clearing up.

24th.—Patient is still very weak, but the pneumonia has cleared up. There is still some bronchitis with free expectoration. The urine is now normal in quantity and composition. Patient is at present slightly deaf. She remains in the hospital, but is convalescing well.

CILIARY BLEPHARITIS.—Encouraged by the success which has followed the application of bands of vulcanised caoutchouc in eczema, M. Roy has employed them in the treatment of the above obstinate affection with good results. He applies to the eyelid in the evening a compressive caoutchouc band, and leaves it on all night. Its efficacy is probably due to the presence of the sulphur in the caoutchouc, and to the complete absence of all irritation of the globe and the conjunctiva during the application of the band.—*Union Méd.*, March 29.

LA RUE CAVENTOU, ST. OMER.—The following decree, signed by the Mayor, is published in the St. Omer journals:—Seeing that M. Joseph-Bienaimé Caventou, born at St. Omer, 1796, and dying in Paris in 1877, rendered himself illustrious by his numerous researches and scientific discoveries; seeing also that one of his inventions, the sulphate of quinine, which obtained the Montyon prize in 1827, might have produced him an immense fortune, but that in his love for science and humanity he did not hesitate to publish his discovery; and seeing that it is of importance to perpetuate the memory of men who have honoured their country by their genius and their disinterestedness—we decree that from this date the Rue des Sœurs-Grises shall be denominated the Rue Caventou.—*Union Méd.*, March 25.

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Medical Times and Gazette.

SATURDAY, APRIL 12, 1879.

THE MEDICAL ACT AMENDMENT BILL.

The Medical Act Amendment Bill of the Government has been passed in the House of Lords, and sent down to the Commons. In Committee, and again when reported in the Upper House, several important amendments were made, by which the measure has been decidedly improved and strengthened. During its earlier stages no one of their Lordships appeared to take any interest in the Bill except the Lord President, and the Marquis of Ripon, an ex-Lord President; but in Committee, on March 20, and on Report, on March 28, Lord Emly, Lord O'Hagan, the Duke of Buccleuch, and the Marquis of Lothian took part in the discussions, and showed a greater or less appreciation of the importance and signification of the measure.

In Committee the Marquis of Ripon spoke at some length against Clause 5, which requires that a person who has obtained a qualifying certificate from a joint examining board in any division of the kingdom shall, before registration, be attached to at least one of the medical authorities in that division, by obtaining from such authority a medical diploma; but does not oblige any medical authority to so attach any licentiate, and, in case of his failing to be attached, provides for his being registered on the qualifying certificate alone. The noble Marquis thought this a very inconvenient system, which would be disadvantageous alike to the public, to the medical corporations, and to the individuals who have to pass the examination. He argued that it would introduce a sort of imaginary distinction between those who are admitted to the Register with affiliation to a medical authority, and those admitted without such affiliation, while there would be really no difference in the qualifications of each and all; and he predicted that either the corporations will attach everyone who applies, so that the whole thing will become a sham, or that they will largely exercise their power of refusing to attach, and then the public will soon discover that non-attachment means nothing, and attachment will be discredited. Lord Ripon in all probability knew as well as the Duke of Richmond and Gordon the whole meaning and *raison d'être* of the clause, and that there is no fear whatever that the corporations will exercise the power of refusing to attach without very good reason. But by his protest he gained an opportunity of making a speech, and with that he was content, and did not make any motion on the subject.

On the motion of the Lord President, words were added to the clause, to prevent the medical authorities from demanding fees for attaching licentiates.

At the instance of Lord Emly, supported by the Marquis of Ripon and Lord O'Hagan, the Lord President consented to the amendment of Clause 15, relating to examination rules, Sub-clause (1), so as to impose upon the Medical Council the duty of passing, and, when passed, of revoking, altering, or adding to examination rules, instead of leaving it to the medical authorities, subject to the approval of the Medical Council, thus reverting to the regulations of the Bill of 1878. The following words were also added to the Sub-clause:—"And it shall be the duty of the General Medical Council to see that the examination rules in each part of the United Kingdom are so framed and carried into effect that the qualifying certificate shall, as nearly as possible, be granted on equal terms as regards the curriculum of study, examinations, and standard." In Committee the Lord President reserved his decision as to equality of fees; but when the Bill as amended in Committee was reported, an amendment was inserted in Clause 19 providing that the fees to be paid on admission to the examinations of a Board "shall be of the same amount in every part of the United Kingdom." Sub-clause 3 of Clause 15 was also amended, to the effect that the examination rules shall determine the conditions of admission of candidates to the examinations, "including the production of evidence of good character."

Sub-clauses 5, 6, and 7 of the same clause have been struck out of the Bill, to bring the clause into conformity with the amendment made in Sub-clause 1; and the following new sub-clause has been added:—"All rules made in pursuance of this section, when confirmed by the Privy Council, and all rules made in pursuance of this which do not require to be submitted to the Privy Council, shall be laid before both Houses of Parliament as soon as may be after such rules are confirmed and made respectively, if Parliament be then sitting, or, if not, as soon as may be after the beginning of the then next session of Parliament." In Clause 16 also an amendment has been introduced, providing that "every scheme made in pursuance of this Act" shall likewise be laid before both Houses of Parliament.

At the end of Clause 21, giving power to a medical authority to constitute a new medical diploma, to be granted for the purpose of attaching to such authority, with a view to registration, persons who have obtained qualifying certificates under the Act, the following words have been added:—"But if any such new medical diploma is constituted by a medical authority for the said purpose, that diploma shall be the only diploma granted by such authority for the purpose of attaching to such authority persons who have obtained qualifying certificates under this Act."

Clause 25, relating to midwives, has been struck out of the Bill. A new clause, numbered 31, has been introduced, saving the right of the Archbishop of Canterbury to grant, as heretofore, the degree of Doctor in Medicine as an honorary distinction, "so, however, that such degree be granted only to a person who is registered in the Medical Register, or who, having been so registered, continues to be entitled to be registered in the Medical Register."

The only other amendment that we have discovered is the

introduction of words in Clause 3 providing that no person shall be registered unless such person is a licentiate "in medicine, surgery, and midwifery" of the medical authorities for one part of the United Kingdom; or a colonial or foreign practitioner entitled under the Act to be registered. An English person will be registered as "Lic. M.S.M." of England, Scotland, or Ireland, in one column of the Register; in another column will be given the diploma attaching to a medical authority (if any); and a third column is for "diplomas indicating a higher degree of knowledge in medicine and surgery."

The progress of the Bill is at present completely checked at the door of the House of Commons. Lord George Hamilton some time ago, on the part of Government, gave notice of motion for a Select Committee to inquire into the constitution of the General Medical Council, and to report whether any, and, if so, what changes are desirable in the constitution of that body to render it more efficient for the purposes for which it was formed. And he gave a pledge that the Government Medical Bill should not be proceeded with in that House till the Select Committee had reported. But four notices of amendments to his notice of motion have been given. Mr. Errington proposes to move that the appointment of the Committee be postponed till the House has had time to consider the Government measure of medical reform, and the scope of the reference to be made. Dr. O'Leary desires to extend the inquiry by the Committee to "the Conjoint Scheme of Examination as defined by the Medical Act Amendment Bill of the present session." Dr. Cameron would require it "also to consider the various Bills relating to medical reform at present before Parliament." And Dr. Lyon Playfair is to move to add, at the end of the reference to the Committee, the words "and to consider how far the Medical Bills now before Parliament are calculated to affect the teaching of medicine in the universities and other schools of medicine." Lord George Hamilton has not yet been able to move for the appointment of the Committee; no opposed business can be taken after 12.30; and the House has adjourned for the Easter vacation. It cannot, therefore, be said that the prospect of the Government being able to pass their Bill this year is at all a bright one.

CROUP AND DIPHTHERIA BEFORE THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE long deferred discussion on croup and diphtheria before the Royal Medical and Chirurgical Society began on Tuesday last, and will be continued on at least one subsequent meeting. It will be remembered that some years ago, on the occasion of the reading of a paper by Dr. Semple, it was determined to appoint a Committee to inquire into the question of the identity of croup and diphtheria; that after a long interval this Committee reported; that their report was too long for reading at one meeting of the Society, and that consequently an abstract only was then read, and published in our columns. Many Fellows of the Society considered that it would be unjust to criticise a report read only in abstract, and accordingly it was proposed to print and circulate this report, and to take the discussion on a subsequent day. This adjournment was proposed by Dr. Habershon and seconded by Mr. Holmes. When, therefore, the discussion by appointment was to have begun on Tuesday evening, Dr. Habershon being absent, it fell to no one in particular to begin it, and the key-note to the whole proceedings was struck by the manifest unwillingness of anyone to step into the arena. A prolonged pause ensued; and it was not until some minutes had elapsed that Mr. Parker began what ultimately proved a dull but not altogether unprofitable talk—for debate we cannot call it. Mr. Parker had evidently made himself master—too painfully master—of the report, and what he had to say was marred in its effect by too close and frequent reference to the report itself. His statement would have been much clearer and his special knowledge more distinctly brought out had he contented himself with more general reference to the body of the volume. Briefly his contention might be stated as this: that croup or membranous laryngitis and diphtheria were one and the same; and he fell foul of the Committee for neither saying yea nor nay to the question which had been specially put before them to answer—viz., whether this was or not. He held that no one of the distinctive points relied upon was inexpugnable, and that the burden of proof lay rather with those who denied their identity than on those who maintained it. Dr. Bowles, of Folkestone, on the contrary, considered that the Committee had acted most wisely in leaving the question as it were undecided, whilst he maintained that there might be membranous inflammation which was non-diphtheritic, using the word in its specific sense. Whilst Mr. Holmes, reading the question put and the answer returned by the Committee, showed that no more definite answer could be given to a very definite question. It was left for Dr. Wilson Fox, however, to raise the kind of verbal commentary which had been going on, to the level of something like a debate. He had not come specially prepared to speak, but from a prolonged experience he was able to say something which was of real value in the discussion. Thus, as to whether there might be a non-specific membranous inflammation of a mucous membrane, he appealed at once to the disease sometimes known as plastic bronchitis, not very common and not very fatal, and recurring again and again in the same individual as far as the formation of mere casts of the bronchi was concerned. These casts or membranes were, moreover, to all intents and purposes similar to those found in croup and diphtheria, consisting of epithelium and leucocytes bound together by fibrine. Moreover, in dogs it was very possible by injecting ammonia into the lungs to produce a membranous bronchitis extending to the uttermost ramifications of the lung. These were clearly cases of membranous inflammation of a mucous membrane, due to non-septic causes; but when the throat came to be discussed, the great difficulty which had to be encountered was to prove unmistakably the absence of all septic influences. Foul air and water, so common in our dwellings, seemed to have a special predilection for attacking the throat, and giving rise to membranous inflammations of a septic kind. But from analogy he believed, notwithstanding the difficulty of actual proof, that simple membranous laryngitis might occur.

Dr. Sansom also contributed one or two interesting items to the discussion; the gist of these was that more than one condition might produce symptoms like croup. To illustrate this he adduced the cases of two children (brother and sister), who both came into the North-Eastern Hospital for Children, with croupy symptoms. These were so urgent in one case and so croup-like that the trachea was opened, and a substance, hardly membranous, but rather mucous, was removed. The child died, and there was found nothing save a most extreme and most extensive congestion of the bronchial mucous membrane. The brother, who had been subjected to similar influences, also became very bad, but, bearing in mind the condition of things in the sister, the croupy symptoms were suffered to run their course without opening the trachea, and after death exactly the same appearances were found as in the other. The same type of things was found in nine cases in all.

At this point the discussion, which had become somewhat more lively towards its close, was adjourned on the motion of Mr. Jonathan Hutchinson, seconded by Dr. George Johnson.

QUESTIONS OF THE DAY IN THE GERMAN MEDICAL WORLD.

Two questions are at this moment agitating the medical profession in North Germany. The first relates to medical fees, the second to medical education. In Prussia, as some of our readers probably know, the fees of the doctors are regulated by what is called a "Taxe" or tariff, so that they are in the same position as cabmen, and, as we understand the matter, legally unable to charge what they like. The "Taxe" which is now in force was last regulated in 1815. It is proposed to revise the old tariff, and the Minister of Education has just submitted to the Medical Society of Berlin a plan for its approval, which we are glad to find from the *Cologne Gazette* of March 23 that its members have rejected. Our readers shall judge for themselves of the insult which the State has chosen to inflict on a dignified profession. Here are some of the proposed fees:—(1) For a first visit to a patient, 2s.; (2) for each after visit, 1s.; and if several members of the same family are treated simultaneously, half of the above fees for each person; (3) for a consultation of two or more doctors on a case, 5s. for a first, and 3s. for a second visit for each medical man present; (4) for a home consultation, 1s. 6d. the first, and 7d. the subsequent visits; (5) for night visits from 10 a.m. to 7 a.m., three times the fees fixed in paragraphs 1 and 2, and twice those in 3 and 4; (6) for the laryngoscopic or ophthalmoscopic examination, and for the use of other diagnostic instruments, 2s.; (7) for administering chloroform, 3s.

It is hard, to characterise such conduct on the part of a government which sacrifices everything to the art of killing. It is clear, however, that the art of healing goes for very little in its eyes, although so recently not only Prince Bismarck, but the German Emperor himself, have had to thank the members of our profession for the safety of their lives. We hope that medical men in Germany will stedfastly resist all attempts to thrust such an indignity on them. The *Cologne Gazette* even, a political journal, disapproves the new Taxe, and states that "it sets fees lower than that of 1815, which is also superior in this respect, that it fixes three degrees of payment—a low, a middle, and a high one—and respects the well-being of those for whom it is framed." A recent writer, Dr. Hirschberg of Berlin, without daring to suggest that the medical tax should be altogether abolished, believes that "the State would best serve the interests both of the doctors and the public by reforming the antiquated scale of fees in such a way as to render it easier for the former to utilise the costly advances of modern science; and, at any rate, to earn so much, that when a conscientious, active, popular, and prudent medical man dies, after twenty, or even forty years' practice, it may not be so often necessary, as at present, to collect money for his funeral and his family." And yet, with the facts revealed by this last sentence before him, a Prussian Minister endeavours to reduce further a scale of fees proved to be inadequate to the increased cost of living in Germany! We shall await the issue of this miserable business with great interest; and our German brethren may be assured of the sympathy of the profession in Great Britain.

The second question referred to above has an important bearing on the status of the medical profession in Germany. Hitherto it has been necessary for a student intended for a doctor to be educated at a *gymnasium*—that is to say, to acquire a certain amount of classical knowledge and a useful *quantum* of Latin and Greek. It is not proposed to admit students from the so-called *Realschulen* to the study of medicine, although at the latter they acquire only a limited acquaintance with Latin, and learn no Greek, the place of the latter being taken by the English language and by an increase in the hours for history, geography, and natural science. The new proposal of the Education Minister has been examined by a commission of members of the Berlin Medical Society, and rejected for several excellent reasons which have been formulated by the commission. The main ground of their objection to the proposal is that any lowering of the standard of medical education tends to lower the quality of the average practitioner, and also to lessen the esteem in which a doctor is held by the public as a member of a learned profession. From a practical point of view, a knowledge of Latin and Greek is undoubtedly of service to students of a science which borrows all its technical expressions from those languages. As to the intrinsic value of the classics as an educational means, the commission holds the same view as that expressed by Billroth in his "Lehren und Lernen der Medizinischen Wissenschaften," namely, that it is the best basis for the after-study of medicine and for the needs of a doctor's life. It is admitted that the gymnasial curriculum is capable of improvement, and that mathematics and natural science should enter into it more largely than they do at present; but the classical element should, nevertheless, be not entirely overlooked.

It is plain that these two questions must be considered conjointly, and not apart from each other. It is quite true that the professors of medicine in certain of the universities are in high favour at their various Courts, but to a really sound and well-trained German official they are all, more or less, pestilent fellows. The notions which they acquire and inculcate are most unpalatable to the "Vons" of High-German aristocracy, who would, for the most part, as soon think of making a son a doctor of medicine, as a Russian noble of making his son a priest. Hence it is that in both countries (in Russia and in Germany) the ranks of medical students are, to a great extent, filled by men of low social standing and upbringing, especially by the lower class of Jews, against whom Billroth so bitterly inveighed. In this new blow, aimed at the status of medical men in two ways, we have but a further carrying out of the bureaucratic spirit. The medical profession is to be lowered—its emoluments are to be diminished; the mode of life of its members rendered more abject, and nearer that of the peasant class—and thus to become less worthy as an object of ambition by those who from birth are likely to ennoble a trade so miserable. On the other hand, the standard of preliminary education is to be lowered, so that men of a lower stamp may find their way into the medical profession; for the authorities are too keen not to perceive that it is far easier to stop the entering than to hinder the parting medical candidate; and that an easy entrance examination, or abbreviated preliminary training, is a far greater inducement than a lowering of the professional standard in another way. We know what the result of an improved preliminary education has been in this country; hence we can judge what the effect of an opposite course is likely to be in Germany.

THE WEEK.

TOPICS OF THE DAY.

Two cases have recently been brought before the superior courts, raising questions of considerable public interest and importance. In the first—Castleberg *v.* Kenyon—the question was as to the right of a tenant (apart from any express stipulations in a lease or agreement) to charge the landlord with the expense of necessary improvements in drainage or water-supply ordered by sanitary authorities under any statutory enactments, such as the Nuisance Removal Act, the Public Health Acts, or the like. The Wandsworth Board of Works, acting upon information

supplied by their medical officer, had ordered the plaintiff to effect certain sanitary improvements in the house inhabited by him at Clapham-common, and after complying with their orders he sought to recover the expenses from his landlord, who denied his liability. The matter was accordingly referred to the Wandsworth County Court, the judge of which decided in favour of the defendant. The plaintiff now moved for a rule to set aside the judgment, on the ground that the judge was mistaken in his decision, and it was argued that the expenses in question, though the tenant might be primarily chargeable, were chargeable upon the premises, and therefore payable by the landlord. In this case the Court granted a rule for a new trial. In the second case, the Swindon Board of Health *v.* Hinton, the question raised was whether the expenses of works ordered by a local Board are to be assessed against the owner of premises at the time such works are ordered, or against the owner of the premises when such works are completed. The Board had ordered certain improvements to be carried out during the period that the premises were in the occupation of the defendant, but before they could be completed he transferred the houses to another. Proceedings were taken against him before the magistrates, who decided in favour of the Board. On appeal to the sessions this decision was set aside. The Board then brought the present appeal to the superior court. The Lord Chief Justice said he was glad to be able to come to a conclusion in accordance with common sense and justice. The person liable was clearly the owner when the work was completed and the expenses became payable; he was the party who got the benefit, and who ought to pay for it. Judgment was therefore given for the defendant, and leave for a further appeal was refused.

A curious and rather startling state of affairs was made public at a meeting of the Whitechapel Board of Works, held last week. The sanitary inspector brought up a report which stated that upon visiting a house in Goulston-street, Whitechapel, he found in a back room on the first floor, occupied by a foreigner, his wife, and two children, twelve fowls which were feeding on the floor under the bed. In a room adjoining, let to the same tenant, he found 127 fowls, and he was informed that only a week previously the number of feathered inmates in the two rooms had reached 212. The smell caused by the collection of such a number of birds in such an unsuitable place was very bad and pervaded the whole house, in which twenty other persons resided. In the market adjoining, much frequented by foreigners, poultry is a staple commodity, and the dealers are in the habit of storing fowls and animal and vegetable food in the rooms where they and their families reside. An order was given for the immediate suppression of the nuisance.

In answer to a communication addressed to the Admiralty by the Alverstoke Board of Guardians, their Lordships have consented to modify their original scheme for throwing the maintenance of naval pauper lunatics upon the parishes in which the hospitals they are sent to are situated. The Admiralty will defray all costs incurred in sending the lunatics to their respective parishes; but for the future those admitted to the Naval Asylum at Yarmouth will consist only of persons discharged from the Navy for lunacy contracted in the service, and who are entitled to life pensions; and men who, after leaving the service, contract lunacy which is attributable to service in the Navy. The answer was not considered satisfactory by the Board, and the Guardians then resolved to repudiate their liability for the maintenance of any naval lunatics; but they expressed a wish that some of their number should confer with their Lordships with a view to obtaining some more satisfactory arrangement.

The inspector for the Nantwich Rural Sanitary Authority has reported the existence of an epidemic of scarlet fever in the district. Since the last meeting of the Authority, a fortnight ago, twelve fresh cases have occurred in Church Coppenhall. Four children of the Rev. S. Dickinson, Scotch Presbyterian minister, have been attacked, and two have since died. The disease has extended to Worleston, where eight cases are reported, four of which have proved fatal. It is stated that contagion has, in nearly all the cases, been traced to Crewe, which is in the Monks Coppenhall township of the Nantwich Union, and where the malady is also epidemic.

The anti-vaccination party in Brighton held a meeting at the Town Hall, last week, for the purpose of replying to some remarks of the local member, Mr. J. Ashbury, M.P., put forward by him in declining to support a memorial to Parliament for the repeal of the Vaccination Acts. A number of sympathisers with the objects of the meeting were present, and several addresses deprecating compulsory vaccination were delivered, the meeting eventually deciding to petition Parliament to revoke the Acts.

We are this week able to record that Dr. Phillips, of Brook-street, Grosvenor-square, has succeeded in obtaining a verdict against the South-Western Railway Company for injuries sustained in a collision which occurred on that company's line on December 8, 1877. The train in which Dr. Phillips was travelling from Sunningdale to London on that day came into collision with an engine standing on the up Windsor line, and in consequence he suffered very severe injuries, two of his ribs being broken, in addition to the infliction of a severe shock to the system and injuries to his spine. Mr. Heath, Dr. Ringer, and Mr. Erichsen appeared to give evidence as to the nature and extent of the injuries received by Dr. Phillips, and as these gentlemen were not cross-examined, the Attorney-General, who appeared for the plaintiff, intimated that he did not propose to call any more of the eminent medical men who had attended to give evidence in support of his case. Ultimately the jury, after an absence of three-quarters of an hour, returned into court with a verdict for the plaintiff for £7000. This may appear to be a very considerable sum, but it must be remembered that Dr. Phillips' receipts were proved at the trial to have amounted, during the three years prior to the accident, on an average, to £6700 a year, excluding special fees. Further, Mr. Heath gave it as his opinion that Dr. Phillips was not likely ever to be able to follow his profession again. The amount awarded cannot, therefore, be considered excessive, and is, in fact, but a poor compensation for the loss occasioned through the negligence of the company's servants. So much is this the case that Dr. Phillips has appealed against the decision to a superior court.

Apart from any authoritative announcement on the subject, it may be fairly assumed that the much-dreaded outbreak of plague in Russian territory has come to an end. Recent intelligence confirms the assertion that the quarantine, which had been strictly maintained around the suspected villages, has been entirely removed, and that all excitement at St. Petersburg on the subject has come to an end. Our own authorities are apparently satisfied that the danger has passed, since a second vessel arriving in the Tyne from Libau, with a cargo of Russian rags for the paper manufacturers, has not been subjected to quarantine as in the first case, but has been allowed to proceed direct into the Tyne Dock to discharge her cargo among the other shipping. The ship brought a clean bill of health, and her crew have

been permitted to go at large. It is to be hoped that this withdrawal of all precautions may not be found to have been premature.

The City "adulterated flour" case, originally ventilated by Dr. Sedgwick Saunders, has, after several weeks, at length been settled. The defendants, two Germans, were on Saturday brought up at the Central Criminal Court to answer the charge of endeavouring to defraud Mr. Alexander, of the Anglo-Belgian Bank, by falsely pretending that eighty sacks of plaster of Paris contained flour or meal; and for unlawfully attempting to pass off the contents as fit for human food, whereas they were noxious and poisonous matter. The evidence adduced proved that the prisoners had themselves been imposed upon, and the jury, adopting this view, immediately returned a verdict of "Not guilty." The Recorder expressed his opinion that a gross fraud had been perpetrated by the original consignor of the article, and the jury concurred, adding that they did not think the defendants were in any way concerned in it. Although the inquiry has failed to bring to light the principal culprits, it will be admitted that Dr. Saunders was perfectly right in protecting the public by the vigorous proceedings he sought to institute at the outset of the case.

THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

A VERY large number of the Fellows attended the meeting of the Royal College of Physicians which was held on Monday, the 7th inst., attracted chiefly, no doubt, by two of the items of business on the agenda paper—viz., the election of a President; and a notice that Dr. Duckworth would move—"On consideration of papers relating to the Conjoint Examination in England,—that Note C in Paragraph 12 be expunged." The paragraph requires that students shall have "attended a separate practical course of general anatomy and physiology during not less than three months," and the note is as follows:—"In this course it is meant that the student shall be engaged in the necessary experiments and manipulations; but it is not hereby intended that he shall perform vivisections." The voting for the election of a President resulted in the, all but unanimous, re-election of Dr. Risdon Bennett, who has thus the honour of presiding over the College for a fifth year. It may indeed be said practically that he was elected unanimously, as only a very few scattered votes out of eighty were given for anyone else.

Dr. Barnes had given notice of his intention to propose that the College, in accepting the first part of the scheme of the Committee of Reference, desire to draw the earnest attention of the Committee to the strong opinion entertained by some of the Fellows, and especially of those who have been or are still engaged in teaching midwifery, that the provision made for instruction in midwifery and the diseases of women is inadequate; but he withdrew his motion, and the papers relating to the Conjoint Examination not being brought before the College, a question was raised, we understand, whether Dr. Duckworth's motion was in order. The question was, however, waived, and the motion was considered. Dr. Duckworth, and other speakers who supported him, contended, we believe, and very ably, that the note is superfluous, uncalled-for, illogical, and meaningless or mischievous; that, if it means anything, it means that the student may be taught or led to do that which is forbidden at present by the law of the land; that it directs that the student of practical physiology shall be engaged in the necessary experiments and manipulations, and then forbids his being taught practical physiology in the only really practical way; that it has the appearance of endorsing the popular agitation against scientific vivisection, and of approving of the prohibitory Act which was passed in the teeth of the report of the Committee on Vivisection; and that, by allowing it to pass without protest, the College of Harvey will be committed to the approval of all of this. On the other side it was urged, we understand, that the note really does not mean anything at all, except that vivisections are not to be improperly and wantonly performed; that it is only explanatory of the paragraph to which it is appended (which surely ought to have been so written as not to need any explanation); and that the College, by objecting to it, would seriously delay the general acceptance of the scheme, and might thereby furnish an additional argument to the opponents of the Medical Act Amendment Bill, and help to prevent its becoming law. Rumour says that it was also argued that the objections raised by Dr. Duckworth had been brought forward when Part 1 (in which the paragraph and note are contained) of the Conjoint Examination papers was considered, and that nevertheless the College approved of the papers. But rumour also says, and very positively, that Dr. Duckworth's objections were abruptly put a stop to on that occasion, and that the question he wished to raise was not taken into consideration at all, because, from some mistake, many of the Fellows who believed they had been voting only for the approval of one particular paragraph of Part 1, really voted for the approval of the whole, and so Dr. Duckworth was out of order. Be that as it may, however, though Dr. Duckworth was strongly supported on the present occasion, he was out-voted by a narrow majority, and the paragraph and note have the approval of the College.

Before laying down his office the President gave, as is usual, a short address, passing in review the events of the past year as they concerned the College. He was able to state that the College is in a prosperous condition, financially and otherwise. During the year, 13 Fellows, 23 Members, and 81 Licentiates had been added to the College Roll; while 9 Fellows, 13 Members, and 13 Extra-Licentiates and Licentiates had died. There are now 2130 names on the Roll altogether, the Licentiates numbering 1234. The President also informed the College that the Plague Commissioners had been furnished, before they went out to the East, with a paper of suggestions for their guidance, drawn up by the Plague Committee; that these suggestions were incorporated with the instructions given by the Government; and that any communications received from the Commissioners will be forwarded by the Government to the College.

THE MEDICAL DEFENCE ASSOCIATION.

AT the anniversary meeting of the Medical Defence Association, held on Wednesday, the 26th ult., the Hon. Secretary, Mr. George Brown, read the report of the Council, in which was reviewed the work of the Association since the last meeting. The report stated that during the past year the attention of the Council had been chiefly directed to the subject of medical legislation, and had brought a good deal of pressure to bear on the Government with good result—the views of the Council, especially as regard the conjoint scheme, uniformity of examinations, the imposition of fines for unqualified practice, as well as for false assumption of medical titles, having been adopted by the Government. The report also stated that the Council had obtained an authoritative and favourable decision on the question of "counter-prescribing" in the case of the Apothecaries' Society *v.* Wiggins, which was tried before Mr. Justice Field and a common jury. It was proved that the defendant had prescribed in three cases of illness, the patients having been brought to his shop. It was stoutly and ably contested by the Chemists' and Druggists' Defence Association, on behalf of the defendant, that in prescribing for patients in his own shop he had not exceeded the powers reserved to chemists

under the Act of 1815, but the summing up of the judge was against this view, and the jury gave a verdict for the prosecution in all three cases. With respect to the Nottingham "counter-prescribing" case, which was subsequently before Mr. Baron Pollock and a common jury, and resulted in a verdict for the defendant, the report stated that proceedings in the case were taken in the superior court in opposition to the opinion and advice of the Council. The Council desire to remove a false impression which obtains as to this verdict establishing a privilege as regards "counter-prescribing" in favour of chemists and druggists. The Council contend that the verdict did nothing of the kind. It was simply founded upon deficient evidence as to matters of fact, the evidence of prescribing on the part of the defendant being wholly insufficient to warrant a jury in convicting. On the question of law, however, the summing up of the judge was wholly in favour of the prosecution. The Council are prepared to further contest the point, and have abundant evidence in more than one case of prescribing by chemists; but unfortunately the Apothecaries' Society have refused to administer, or to allow to be administered, the powers of their own Act of Parliament, which is the only Act under which proceedings can be taken. The Council regard this proceeding of the Society of Apothecaries as wholly indefensible, the more so as the Council have invariably guaranteed the Society against all expenses connected with the prosecutions in which they have been engaged, and have handed over half the penalty in every instance where such penalty has been recovered. After referring to other cases in which legal proceedings had been successful in checking unqualified practice, the report concluded with votes of thanks to the President and other officers of the Association, and to the medical journals for inserting without charge the reports of the proceedings of the Association. A resolution adopting the report of the Council was then proposed and carried unanimously.

THE MANCHESTER MEDICO-ETHICAL SSOCIATION.

The Manchester Medico-Ethical Association, which was established in 1847, has just published its thirty-first annual report for the past year. Dr. Peter Royle was the President during that period, and has been succeeded by Dr. John Thorburn, who has been elected to hold that post during the current year. The Association numbers about seventy-five members, and amongst some of the duties undertaken by it during the year to which the report refers, it may be mentioned that, in answer to an appeal from the Nottingham Medical Defence Association, the sum of £20 was voted to assist in defraying the expenses incurred in prosecuting the case of "The Apothecaries' Society *v.* Shepperley." The Association also sent up a deputation to wait upon the Duke of Richmond in reference to the Medical Act (1858) Amendment Bill, as, in the opinion of the members, there was no provision made in it for direct representation of the profession on the General Council, and no compulsory means for creating a uniform standard of the minimum of knowledge which should be required to qualify a person to practise medicine legally. During the past year the Association also held four *conversasioni* in Manchester.

INFECTIOUS DISEASES IN KENSINGTON.

The difficulty of arresting the spread of infectious diseases in the metropolis is instanced by Dr. T. Orme Dudfield, Medical Officer of Health for the Kensington District, in his monthly report on the health of the parish for March last. A death from scarlet fever, he remarks, occurred at the Mall-chambers, Notting-hill, where at the same time two children, brother and sister of the deceased, were suffering from the same complaint. The existence of the disease only became known on the registration of the death, and every effort to induce the parents to allow of the removal of the other children was made without success. A short time previously a series of cases in another family living in these chambers, and extending over many weeks, came to Dr. Dudfield's knowledge, but not until the disease was nearly at an end. It was so obviously undesirable that cases of an infectious malady like scarlet fever should be treated in an important and populous building like the Mall-chambers, that Dr. Dudfield appealed to the proprietors in the hope that they would bring influence to bear on their tenants to induce them to make known to the medical officer of health the occurrence of cases of infectious disease in their families, and with a view of obtaining their co-operation in the efforts of the authorities to secure the removal of the sick to the hospital. In course of time we shall, doubtless, hear from Dr. Dudfield what success has attended this appeal, but it is evident that compulsory registration of all cases of infectious diseases is the only certain remedy for securing isolation, and thereby preventing their spread, and this can only be secured through the medium of Parliamentary legislation.

CORONERS' INQUESTS AT THE RADCLIFFE INFIRMARY, OXFORD

The following letter from the Home Office has been addressed to the Chairman of the Committee of Management, in reply to his letter soliciting the intervention of the Secretary of State:—

"Whitehall, March 8, 1879.

"Sir,—I am directed by the Secretary of State to acknowledge the receipt of your letter of the 5th inst., stating that the Committee of Management of the Radcliffe Infirmary have accepted the Secretary of State's proposal with regard to cases of inquest held at that Infirmary, and I am to request that you will lay the following recommendation before the Committee for their consideration:—

"The Coroner is not only entitled, but bound, to summon any witness whose evidence he considers essential to the inquiry; and in the exercise of his discretion in this respect he is not to be interfered with. At the same time it is his duty to conduct the inquiry with the least amount of inconvenience to those concerned, and especially to the officers of so useful an institution as the Radcliffe Infirmary.

"In special cases, where the cause of death in the Infirmary after an operation cannot be ascertained without investigating both the necessity and also the effect of the operation, the presence of the surgeon who performed the operation is properly required.

"But in ordinary cases, where, though there has been an operation, no question arises concerning it, and the evidence of the house-surgeon is sufficient for the purpose of proving the cause of death, the presence of the surgeon who performed the operation should be dispensed with.

"The officers of the Infirmary should readily conform to all legal requirements of the Coroner, and should render to him every assistance in the conduct of his inquest.

"I am, Sir, your obedient servant,

"The Rev. J. Slatter." "Godfrey Lushington."

DERMATOPHONY.

Professor Huetee's observations on this subject (*vide Medical Times and Gazette*, February 15, page 179) have been confirmed by Dr. Paul Guttmann (*Berl. Klin. Wochenschrift*, No. 10, 1879), and by Professor Senator (*Centralblatt Med. Wiss.*, No. 9, 1879). Dr. Guttmann, however, who is an authority on diagnostic methods, doubts the practical value of the discovery. He also shows that the bruit heard on applying the dermatophone to the closed eyelids is in part due to muscular contraction, and not altogether to the rush of blood through the capillaries. Senator calls attention to the fact that the absence of a capillary bruit is of no diagnostic importance in doubtful cases of suspended animation, but that its presence is, and that the bruit occurs, even in paralysed limbs, provided the

irculation is sufficiently active. According to Plessen *Wiener. Med. Blatter*, No. 6, 1879), Hueter's capillary bruit was noticed, but misunderstood, two hundred years ago. Laennec also knew of a murmur in the finger-tips, which disappeared in dying persons before the heart ceased to beat; and Collongues in 1866 described certain similar sounds, to which he assigned far too great a diagnostic and prognostic importance. The best place for hearing the normal capillary bruit is, according to Senator, the tongue. The sound is intensified by certain diseased conditions, chiefly those which render the vibrations of the peripheral arteries fuller. Aortic incompetence, and other valvular diseases in which the left ventricle is hypertrophied, have the greatest intensifying power. Lastly, Senator states that, by the use of a stethoscope furnished with an elastic membrane, and the diameter of whose lower end is exactly one centimetre, the pulse of such peripheral arteries as the radial and brachial, and, under certain conditions, of the ulnar and temporal, may be heard.

THE PROFESSORSHIP OF BOTANY IN EDINBURGH.

We are exceedingly glad to learn that Dr. Dickson, Professor of Botany in the University of Glasgow, has been appointed to the chair of Botany in the University of Edinburgh, vacated by the resignation of Professor Balfour. We are pleased to be able to congratulate both the University and the new Professor on the appointment. Dr. Dickson is essentially the right man in the right place—at once the man best qualified and most deserving of the appointment in Scotland.

OBSTETRICAL SOCIETY.

The Council of the Obstetrical Society have made arrangements to hold a discussion on the Use of the Forceps and its Alternatives in Lingering Labour. The debate will be opened by Dr. Barnes at the next meeting of the Society, May 7.

HARVEIAN SOCIETY OF LONDON.

The Harveian lectures will be given this year by Mr. Edmund Owen, "On Certain Practical Points in connexion with the Surgery of Childhood."

Hunstanton Convalescent Home.—It is stated that the new buildings of the Hunstanton Convalescent Home, which have been erected as a memorial of thankfulness for the recovery of the Prince of Wales in 1872, will be formally opened by the Princess of Wales on Monday next. The Prince and Princess will drive from Sandringham to the Home, with the Earl of Leicester, the President, will be conducted over the buildings, and then, returning to the terrace, the Princess will declare the Home opened.

Composition and Quality of the Metropolitan Waters in March, 1879.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen: As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.	
				Saline.	Organic.	Before Boiling.	After Boiling.
Thames Water Companies.	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	21·20	0·062	0·165	0·000	0·008	15·9	4·2
West Middlesex...	21·00	0·084	0·190	0·000	0·007	15·4	3·7
Southwark and Vauxhall ...	21·00	0·075	0·135	0·000	0·005	15·4	3·3
Chelsea	19·80	0·064	0·126	0·000	0·008	14·3	3·3
Lambeth	21·50	0·079	0·185	0·000	0·006	14·8	4·2
Other Companies.							
Kent	29·20	0·004	0·360	0·000	0·002	17·6	5·1
New River ...	19·40	0·037	0·150	0·000	0·001	14·3	3·3
East London ...	23·80	0·064	0·126	0·000	0·008	16·5	4·2

Note.—The amount of oxygen required to oxidise the organic matters, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours.

The water was found to be clear and nearly colourless in all cases.

FROM ABROAD.

Treatment of Ingrowing Toe-Nail.

Dr. Charles Hunter, Demonstrator of Surgery at the University of Pennsylvania, read a paper upon this subject before the Philadelphia Medical Society, which is reported at length in the *Philadelphia Medical Times* of February 1. He states that he has had much opportunity of treating this affection, and of comparing the various modes which have adopted (according to Gosselin, seventy-five in number) been by different surgeons. He is entirely against the avulsion of the nail and cauterising its matrix—a procedure most painful in execution, sometimes propagating dangerous inflammation to the adjoining structures, and depriving the toe of a useful protection. The plan which he strongly recommends is that pursued with great success by Dr. Neill, late Professor of Surgery in the University of Pennsylvania, and which is itself a modification of a procedure which Gosselin attributes to Fabricius de Aquapendente, and which, in various forms, has been employed ever since his time.

The first step in Prof. Neill's method consists in cutting or scraping a longitudinal groove in the nail, extending from its root to its free end, in order that its edge may be more easily raised from the ulcer. The surface of the ulcer is then to be cleansed, dried, and painted over with collodion, and when a film has been formed over it, jeweller's cotton in small quantities is to be gently pressed well under the edge of the nail by means of an instrument to be described. When sufficient cotton has been pressed under the nail to keep its edge separated from the soft parts, a small roll of the same substance is to be placed between the outer margin of the nail and the contiguous nail-fold; after which, simple or glycerised collodion is to be freely brushed over the diseased parts and the dressing. A strip of adhesive plaster, about a centimetre in width, is to be wrapped round the toe two or three times, care being taken to carry it from the nail to the swollen nail-fold, and thence around the toe, by which means, and with the small roll of cotton placed there, the nail-fold will be pressed off the nail. The entire dressing need not be changed oftener than once a week, or three times in two weeks, in the majority of cases. In a few cases of an aggravated character, in which the sharp edge of the nail is deeply buried in the soft tissue, and exuberant granulations cover a portion of the nail, nothing but simple collodion is to be applied to the part for the first few days. By its contractile power it presses the granulations away from the nail, and facilitates the application of the cotton. When a patient has cut his nail short, especially at the outer corner, under the false impression that he may thus obtain relief, some difficulty exists in pressing the cotton under the nail, and it is of the utmost importance that the free end of the nail be suffered to grow out square, as the cotton can then effect greater separation of the parts, and the cure is hastened.

The time required for a cure by this method will depend upon the nature of each case and the thoroughness with which the details of treatment are carried out by the surgeon. In mild cases of short duration, in which the outer corner of the nail has not been cut off short, one or two dressings are all that is required. The worst cases are generally entirely cured in a period varying from four to six weeks, rarely longer; and during this period it is not necessary to keep the patient in bed or even confined to his room. Dr. Hunter, indeed, always advises these patients not to give up their work while under treatment. The operation of avulsion requires far more time, and, even when a cure has been effected by it, it is long before the patient can bear the pressure of a boot. Another marked advantage of Prof. Neill's method over those methods which involve loss of the nail is the comparative freedom from pain with which the renewal of the dressing is attended. In order that this may be the case, however, it is essential that the first application should be most thorough, and especially that the cotton should be pressed well under the margin of the nail, so that the inflamed tissue may be freed from a continuous source of irritation. Considerable pain may be produced by this first

attempt to insert the cotton, although the exquisite sensitiveness of the parts is always lessened, to some extent, by the collodion that had been painted over them; and in the most aggravated cases Dr. Hunter has never yet found it necessary to administer anæsthetics. It has been alleged against this mode of treatment that it is of troublesome application, calling for a greater expenditure of time on the part of the surgeon than the affection seems to deserve; and it is true that every renewal of the dressing must be made by the surgeon himself, for the success of the mode of treatment principally depends upon the thoroughness with which it is carried out in all its details: so that the method involves more attention that that of avulsion. But "a complete and permanent cure without loss of the nail is the best result that can possibly be obtained, and consequently is sure to command the patient's gratitude to his surgeon for the skill with which he has treated his case. A knowledge of this fact ought to be a motive of the highest gratification to the surgeon, and in a measure compensate him for the extra labour to which this peculiar treatment may have subjected him."

Prof. Neill did not pretend to having originated this method, but he rendered it far more efficacious by his mode of putting it into execution; and foremost was the instrument he devised for pushing in the cotton. It is simply a round piece of polished steel, about ten centimetres (nearly four inches) in length, and a little less than two centimetres in diameter, with one end flattened. Prof. Neill used to tell his class that it might be easily made from an ordinary No. 16 knitting-needle, which any blacksmith could cut in two, making one end of one of the pieces flat and sufficiently thin by hammering on the anvil, and rounding off the sharp angles. The flat end of the ordinary silver probe will not serve in place of this "toe-nail probe," being too thick to allow of the cotton being pressed under the nail by its aid. Dr. Hunter has made what he finds a convenient modification in Prof. Neill's probe, for although the placing the cotton beneath the free end of the nail by it is easy enough, some difficulty may arise in interposing this between the nail and the exuberant granulations overlying this. A straight probe is not of the proper shape to carry the cotton between the convex side of the nail and the exuberant or fungoid mass of granulations closely applied to it, the operation being rendered unnecessarily painful in consequence of the compressed and bruised state of the exquisitely sensitive nail-fold which was produced on carrying the cotton well beneath the incurved edge of the nail. This difficulty is met by having the other end of the probe not only flattened, but slightly curved in correspondence with the convexity of the lateral margin of the nail. "With the probe held perpendicularly to the nail, with the concavity of its curved extremity looking towards the convexity of the side of the nail, the small roll of cotton is to be gently but firmly pressed down well under the lateral edge of the nail. The end of the probe should be gently pressed against the dense surface of the nail as it carries the cotton down, in order that the delicate granulations may not be injured. Successive small pledgets are in this manner to be introduced till the edge of the nail and the diseased soft parts are sufficiently separated from each other. No advantage is to be gained by stuffing a large mass of cotton between the nail and the nail-fold at the first dressing. When this is carelessly done the dense mass of cotton is almost sure to act as an irritant, and, as a consequence, set up violent inflammation of the parts surrounding the nail, unless the cotton has been promptly removed before it has had time to do harm."

At the discussion which followed, Dr. S. Gross stated that he preferred the removal of a part of the nail, regarding the removal of the entire nail and destruction of its matrix as a barbarous procedure. When the corner of the nail is embedded in a mass of fungous granulations, a stout knife should be introduced under the lateral edge, and made to split the nail from the root to the free border, separating a narrow strip, including the offending part, which with its lateral matrix is then dissected out. A radical and permanent cure is thus attained, while after the ordinary operation the tendency to return is so great that it can only be regarded as a palliative. Dr. Hunter stated that he had found on several occasions, after the performance of the operation mentioned by Dr. Gross, that the cicatrix, by pressure of the shoe, becomes rubbed up against the edge of the nail, giving rise to a return of the ulcer. The corner of the nail left by this operation is a sharp and not a rounded one, and is liable to produce irritation. By Dr. Neill's procedure the natural rounded border to the nail is left. He had performed the operation a great many times, with a permanent cure in the majority of cases. As a rule, it only requires three packings, the first of which is painful, but not the others. Cicatrisation occurs in a very short time.

REVIEWS.

The Surgeon's Handbook on the Treatment of Wounded in War. A Prize Essay by Dr. FRIEDRICH ESMARCH, Professor of Surgery to the University of Kiel; Surgeon to the University Hospital, Kiel; Surgeon-General to the Prussian Army. Translated by H. A. CLUTTON, B.A. Cantab., F.R.C.S., Resident Assistant-Surgeon at St. Thomas's Hospital. With 536 woodcuts and 30 coloured plates. London: Sampson, Low, and Co. 1878. Pp. 315.

"KURZ UND BÜNDIG" is the motto which Prof. Esmarch has adopted for his book, and he has closely followed its injunctions. He has collected a vast amount of material, and presented it to his readers in an admirably concise form, and if the treatise itself be not a short one, this depends upon the number of facts which it includes, and not upon any prolixity in their treatment. The work consists largely of illustrations, which are partly woodcuts and partly lithographed plates. The woodcuts illustrate with remarkable clearness an enormous number of surgical appliances, including most of those which are in ordinary use in civil practice, and many others which may be extemporised from such materials as the military surgeon is likely to find ready to his hand on the battle-field. They contain also illustrative representations of the method of applying all conceivable forms of bandages and slings; of the manner of administering anæsthetics, and of the dangers to be apprehended during the process, and the means of guarding against them; of the various means of arresting hæmorrhage, and of performing transfusion; and of the method of performing most of the ordinary amputations and excisions. The text which explains these illustrations is very short, but on the whole easily intelligible—a point which speaks well for the care bestowed upon it by the translator. Anyone who has attempted to render into readable English the short and crabbed sentences of a German with "Kurz und bündig" on his mind, will congratulate Mr. Clutton on the success of his performance. The text would appear too short were it not for the excellence of the illustrations and for the fact that the book is especially intended to serve for the instruction of younger military surgeons, military attendants, and members of the Red Cross Society, during the emergencies of a campaign. And, as Professor Esmarch says, "on the field no one has time to read much, and a glance at an illustration which clearly exhibits a dressing, an operation, or an anatomical dissection, can recall in the most rapid manner what has been previously learned, but has escaped the memory under the pressure of military incidents." It should be added that the author has also kept in view the fact that his work "could serve as an illustrated catalogue to the depôts of material for volunteer aid in war, and save the surgeon, who wishes to obtain materials for dressing from the depôt, many words, by pointing to the illustrations." We think we have said enough to show that the book should prove useful, not only to military surgeons, but that it will be found a most valuable assistance to the civil practitioner, as affording him a variety of excellent ideas applicable to the emergencies which a country practice is constantly presenting.

We are sorry not to be able to speak so well of the anatomical illustrations. The plates are rough, often difficult to understand, and some contain obvious anatomical errors. To make the scalene tubercle on the first rib above the level of the clavicle, the genito-crural nerve cross the commencement of the external iliac artery, and the radial and ulnar nerves touch their respective arteries in the upper third of the forearm, are obvious mistakes, and we wonder they should have been allowed to creep into a work otherwise so correct. Such inaccuracies are, however, in this part of the work frequent; moreover the translation of the reference tables

to these plates is not so good as that of the rest of the book. Terms unintelligible and highly confusing to the English reader are to be found—especially to one whose knowledge of anatomy is becoming somewhat obsolete. For example, in the description of the operation for ligature of the lower part of the axillary artery we read, "The bundle of nerves is separated, the anterior cord (*n. medianus et cutaneus medius*) being drawn forwards, the posterior cord (*n. ulnaris et radialis*) drawn backwards." It will no doubt be contended that the drawings are only meant to be diagrammatic, but it may fairly be answered that an anatomical diagram to be of use at all, and especially in an emergency, must surely be at least correct.

The book is beautifully got up, with very clear type on slightly tinted paper, and handsomely bound in foreign morocco, and thus forms not only a useful but an ornamental addition to the library table.

Sulla Sintomatologia e sulla Diagnosi delle Lesioni Corticali della Zona Motrice. Pel Dottor DARIO MARAGLIANO, Medico presso il Frenocomio di Reggio.

On the Symptomatology and Diagnosis of the Cortical Lesions of the Motor Zone. By Dr. D. MARAGLIANO, Physician to the Lunatic Asylum of Reggio. Reggio-Emilia. 1878. Pp. 30.

THE present memoir by Dr. Maragliano is to be considered as a continuation of his former work, noticed in these columns very recently, on the motor localisations in the cortical part of the brain. The author does not claim any originality of discovery in this important and difficult subject, although he believes that, by a careful collection and arrangement of materials afforded by previous writers, together with observations made by himself, he has contributed to establish the diagnostic marks of the lesions of the cortical substance of the brain. Still, he is conscious of the many fallacies which may attend such investigations, and he is convinced that it would be equally erroneous to assert absolutely either the possibility or the impossibility of making such a kind of diagnosis. There are, in fact, cases in which the determination of the distinction between the cortical and the central lesions is really impossible; others in which it is only probable; and others in which it is not only possible, but may be made with full confidence.

Dr. Maragliano then passes in review the various phenomena which may be noticed in lesions of the motor area of the cortical substance, examining separately the value which each may possess in assisting the diagnosis. Among the most important indications of lesions of the motor cortical centres, when the functions are not wholly annihilated, are convulsions and epileptiform attacks. These convulsions "exhibit the peculiarity of being generally unilateral, generally confined to a limited group of muscles, or of beginning, even when they become general, sometimes in the sight, sometimes in one limb, or in a single segment of a limb, according to the various positions occupied by the lesion." Other circumstances, however, occurring together or alternating with convulsions, such as paralysis and contractions, are of great diagnostic value. It is of course impossible to follow the author through the train of reasoning which he adopts in discussing the relative importance of each morbid manifestation in determining the seat of injury, but we may quote the conclusions at which he has arrived. He considers, then, that the following characters indicate with certainty the presence of a cortical lesion, viz.:—If the convulsions are limited, or have begun, before becoming general, in a single muscular region, and are not accompanied, or only tardily, with loss of consciousness; if they are succeeded or alternated by circumscribed paralysis, or by hemiplegia of the whole of one side, resembling, in its gradual progress, a series of monoplegic attacks; if on the paralysis there supervenes an early contraction, or there is associated aphasia with the characters of amnesia, or verbal ataxia, or paralysis; if a weak and transient increase of temperature is observed in the paralysed limbs; and finally if there is—whether spontaneous or induced by percussion—a dull pain in a well circumscribed spot in the head.

But the presence of all these phenomena is not indispensable in forming the diagnosis, for if in a given case there be associated a limited paralysis and epileptiform seizures, or a paralysis of all the half of the body distinct from any other symptom, the existence of a lesion of the motor cortical zone may be diagnosticated with sufficient certainty. The case is altered when convulsions are absent, for then the diagnosis loses its character of certainty, and is reduced to a mere probability; and the diagnosis is impossible, when, as sometimes, though rarely, happens, the lesion at the beginning is so extensive as to occupy all the motor zone at once, as it does in cases where the middle cerebral artery is suddenly obliterated by thrombosis or embolism after it has furnished the branches destined for the corpus striatum. In such cases the resulting hemiplegia is only that which is commonly known in practice, and is called *hemiplegia vulgaris* by Charcot.

Dr. Maragliano sums up the diagnostic symptoms indicating the presence of cortical and central lesions respectively in two parallel columns, the essential points of difference being the following:—In the first, there is partial epilepsy, or presenting itself as such before becoming general; in the second there is an absence of localised convulsive phenomena: in the first, there is *dissociated* paralysis (monoplegia) or hemiplegia of the limbs and of sight appearing gradually and successively so as to constitute a series of monoplegic attacks; in the second there is complete hemiplegia of the limbs and the face, such as it appears at first, and is afterwards reduced to a simple monoplegia of the arm. Other marks of distinction, of somewhat less importance, are also enumerated, and, as a pathological feature, it is observed that cortical lesions are most frequently due to softening of the brain either from embolism or thrombosis, or they result from acute and chronic meningitis, and arise less frequently from hæmorrhage; while the central lesions are most frequently due to hæmorrhage, and very rarely to softening.

A practical application of the doctrine of localisation of cerebral functions is hinted at in the suggestion that the surgeon might be guided in certain cases, as to the exact point where the trephine ought to be employed, by a due consideration of the symptoms indicating the seat of the local injury.

Altogether Dr. Maragliano's memoir, although avowedly not original, is a valuable contribution to a very important department of cerebral pathology.

GENERAL CORRESPONDENCE.

"EGYPTIAN CRANIA."

LETTER FROM PROF. W. H. FLOWER.

[To the Editor of the Medical Times and Gazette.]

SIR,—The very cogent reason which "A Wanderer" brings forward against the practice of indiscriminate spoliation and waste of the precious relics of antiquity by travellers (with which, I need not say, I most cordially agree) forms the strongest justification for the action of Mr. Tuke and others, who, at much trouble to themselves, have endeavoured to preserve to science any part of the actual remains of the early Egyptian people.

Osteological specimens, except when accidentally associated with works of art, form no part (or certainly did not when I was in Cairo, five years ago) of the highly important and interesting museum which Mariette Bey, to his infinite credit, has brought together at Boulaq. In the eager search for papyri, scarabi, and other archæolcgical treasures, the inmates of the tombs are literally torn to pieces, and the scattered fragments of their bodies thrown out on the desert sand to perish under the scorching sun, or with their bitumenised wrappings to serve as fuel for the present inhabitants of the land. I was fortunate enough to secure ten skulls at Thebes, which now form part of our collection, and which, with others brought before and since, will remain in evidence of the anatomical structure of that marvellously interesting people, as long as civilisation exists in our land; whereas it is perfectly certain that, if they had been left where I first met with them, they would ere this have returned to the dust out of which they were formed. Now they form part of the permanent stock of material—too fragmentary, unfortunately—from which the history of the human race will have to be built up.

Travellers who wish well to science need feel no scruple in disregarding the objection of officials, which forbid the

export of such specimens under the technical plea that they are "antiquities," which generally covers the more practical motive of the wish to extort *backsheesh*, as long as no provision is made for their preservation in their own land—provided, of course, that they are brought away with the intention of placing them where their permanent utility will be guaranteed.

The isolated skulls of people of different races often seen in private collections of "curiosities" are of little interest, and, as a general rule, ultimately entirely lose whatever worth they possess, by want of care in preserving the records of their history. It is only when they are ranged in extensive series, so large as to eliminate individual variations, and can be compared one with another, in places accessible to all working students of science, that they become of real value. Let me commend this remark to any one of your readers who may happen to possess any such, and at the same time mention that a catalogue of all the specimens illustrating human osteology in this Museum is now going through the press. I am, &c.,

Royal College of Surgeons. W. H. Flower.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 18.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

Abscess of the Liver.

Dr. Norman Moore exhibited three specimens of this condition, all of which were associated with suppurative processes in some part of the body. The first showed a large abscess between the lobes, and was taken from the body of a patient who had been the subject of chronic dysentery for five years, but had never been farther from London than Ipswich. The cæcum and colon were extensively ulcerated. The second specimen was from a man twenty-one years of age, who had had a sinus in the left leg with disease of the ankle-joint for several years. In this case the abscess of the liver, which had not been suspected before death, was large and thick-walled. The third specimen showed multiple abscesses, the case being one of pyo-phlebitis with complete occlusion of the portal vein. The source of the mischief here had probably been the vermiform appendix, which presented ulceration and thickening.

Specimens of "Piedra."

Mr. Malcolm Morris exhibited specimens, with microscopic preparations and drawings, illustrative of an affection of the hair called "Piedra." That word is the Spanish for "stone," and the disease which it designates is characterised by the occurrence of minute hard nodes on the hair, which rattle like stones when combed. The disease has been found only in one State, viz., that of Canca, in Columbia, South America, and was described, in 1874, by Dr. Nicolas Osorio, of Bogota, from specimens sent from Canca, as follows:—Several rounded tubercles of the size of a pin's head, of a black colour and horny consistence, are situated almost at equal distances on the affected hairs. With a low power the microscope detected no organisation in the nodules, but magnified 350 times and treated with glycerine, scales like the hair epithelium are brought into view. Teased with needles the nodules are hard and horn-like, the small particles thus separated showing the characters of hair-epithelium. Denuded of a tubercle, the hair remains almost natural, showing only a circular depression around the part where the tubercle had been located. These nodules show none of the characters of the epiphytes hitherto described as fruccinia, mucor, aspergillus, oïdium, achor, microsporon, or tricophyton. From the microscopic appearance, he (Dr. Osorio) concluded that the disease resulted from the agglomeration of the epithelium in certain points of the hair. The disease had been found to be non-contagious, and its true etiology was still unknown. Mr. Morris had received from the same gentleman, Dr. Gutierrez, who had supplied specimens to Dr. Osorio, some of the affected hair brought from Canca, and he (Mr. Morris) had found reason to differ from the opinion expressed by Dr. Osorio in the foregoing report as to the nature of the disease. Mr. Morris had gathered the following particulars as to clinical history, etc.:—The disease affects only the hair of the head, and is very seldom or never found in men. It never affects the roots of the hairs, but begins usually about half an inch from the root, and then spreads towards the point, or rather is pushed on by the use of the comb. The number of nodes on each hair varies from one to ten, and there is always a short distance between every two. The hair has a peculiar acid smell. The disease is not contagious, and occurs only in the warm valleys, never in cold parts. One theory is that it is caused by a mucilaginous fluid like linseed oil, with which the women wash their hair; another theory ascribes it to washing in certain stagnant rivers which contain a kind of mucilage. The use of these fluids will not, however, produce the disease in a cold climate, as has been proved by experiment. Mr. Morris's specimens presented the following characters. The hairs were dark in colour, weak and flaccid, with small nodes at irregular intervals. These nodes were intensely hard, producing a noise when beaten against glass, and almost incapable of being cut by an ordinary knife, which slipped off on either side. Under the microscope, seen *in situ*, each node presented a honeycomb-like mass, consisting of spore-like bodies, deeply pigmented on the surface, and showing uniformity of arrangement. In the earliest stage of development the mass appeared to originate from one cell, which grows by budding in every direction, forming radiating columns of the spore-like bodies. When the mass had reached a certain size the surface cells seemed altered in shape, becoming darker in colour, and forming a pseudo-epidermis. Transverse sections showed, here and there, rounded spaces, apparently enclosed by the spores or hyphæ on all sides; and there were seen in some sections elongated cells, arranged in tuft-like groups, looking, from their shape and size, as if they had escaped from the cavities just mentioned. From these appearances Mr. Morris concluded that this disease is fungoid in character, and that the fungus has attained a higher state of development than has been hitherto described in regard to the ordinary dermatophytes. Mr. Charles Stewart had suggested to Mr. Morris that the fungus probably belongs to the genus Ascomycites. To that gentleman and to Dr. Sangster, who had given valuable assistance in the preparation of the microscopical sections, Mr. Morris expressed his thanks.

Dr. Tilbury Fox said that the disease lately described as "piedra" in the medical journals was not the same as that which Mr. Morris had brought under their notice, but was a degeneration of the hair itself, its fibres being split up and looking like prisms stuck into each other, and was not parasitic at all. The affection described by Mr. Morris had been recognised and figured by Dr. Beigel as the chignon fungus, which merely grew on the hair without attacking its structure.

Dr. Sangster had not heard of Dr. Beigel's description. The object Mr. Morris had in view was to demonstrate the nature of the disease originally described as piedra.

Dr. Hogan agreed that Mr. Morris's specimens were different from the recently reported forms of piedra, but they were also different from those figured by Dr. Beigel, in which the so-called fungus was a compound produced on the hair by caustic soda and glycerine.

The President suggested that the affection described by Mr. Morris might result from the growth of a fungus in the special medium of oil or unguent applied to the hair.

Dr. Wilks said the specimens were quite different from the nodulations he had described as occurring on the hair.

Mr. Morris, in reply, said that his object in bringing the subject before the Society was to exhibit specimens of the real piedra, as first described, which was a disease limited to a very small locality, and probably due, as the President had suggested, to the development of fungoid growths in the peculiar materials applied to the hair. He thought the disease Dr. Wilks had described some time ago as "piedra" was a variety of trichorrhesis nodosa.

Special Discussion on Lardaceous Disease in relation to its Anatomical Distribution and Pathological Relations.

Dr. W. H. Dickinson introduced this subject in a paper which we published in full in our issue for March 22. He exhibited microscopical and other specimens illustrative of his remarks.

The President said that the thanks of the Society were

due to Dr. Dickinson for his very clear and able exposition of a most difficult subject.

Dr. C. TURNER gave a summary of cases of lardaceous disease from the post-mortem records of the London Hospital. Of a total of 58 cases of the diseased condition in about 2200 necropsies, the spleen was found to be the only organ affected in 23, the liver alone in 5, and the kidney alone in 1. In a single case—one of syphilis—the testes were the only organs affected. The spleen was unaffected in only 10 cases, 3 of these being cases of malignant disease, 2 of phthsis, and 1 of caries, and some of the others syphilitic. Of the whole 58 cases, the spleen, as just indicated, was affected in 48, the liver in 40, the kidney in 15, and the intestine in 10. Suppuration had been present in 42 cases, in 38 of which the spleen was affected, the liver in 22, the kidneys in 8, and the intestine in 9. Of the remaining 16 cases, 6 were cases of syphilis, with lardaceous spleen in 3, liver in 2, kidney in 4, and bowel in 1. The liver and kidneys were specially liable to the lardaceous change in malignant and syphilitic conditions. The change was also seen most frequently in these organs when they had been the seat of other chronic changes—as cirrhosis. There remained only 10 cases of the 58 in which the disease was not clearly associated with suppuration or syphilis, phthisis being included under the former. Many of these 10 were cases of malignant disease, the association of lardaceous disease with the latter having been already referred to by Dr. Murchison. Dr. Turner now gave some details regarding each of these ten cases. The first had cancer of the liver and lardaceous spleen; there was also doubtful evidence of syphilis. The second had malignant disease involving the mediastinum, lungs, and liver; the liver and spleen were markedly lardaceous. The third had an epithelioma of tongue, with lardaceous liver. The fourth had malignant disease of the abdominal glands, with lardaceous spleen and kidneys. The fifth had malignant tumour of the kidney; the liver was cancerous and lardaceous. The sixth had malignant disease of the colon, and the liver was slightly lardaceous. There was also a possibility of syphilis in this case as in most of those just mentioned, and Dr. Turner suggested that the malignant disease might have determined the deposition of lardaceous material from a previous syphilitic infection, otherwise latent. It was, again, very possible that in the ulceration of many of the malignant growths was to be found the explanation of the (concomitant) lardaceous change. In the seventh and eighth cases the lardaceous condition was associated, probably accidentally, with heart disease. One of these cases had had white swelling of the knee twenty-seven years previous to death. In the ninth case the lardaceous condition was associated with the hæmorrhagic diathesis, there being, however, some doubtful evidence of previous hip-joint disease. The remains of an old hæmatocele were also found in the pelvis. In the tenth case there was gangrene of the feet, and some probability of old syphilis.

Dr. GAIRDNER (of Glasgow), rising on the President's invitation, said that he could add little to the excellent paper they had heard read by Dr. Dickinson. The few remarks he would make were only of historical interest. He had been one of a band of young medical men who had worked at this subject in Edinburgh in 1851, long before Virchow had made known the iodine test. They had then ascertained many of the facts in regard to lardaceous disease, their results being published in the *Transactions* of the then existing Physiological Society of Edinburgh. One of their number was Dr. James Drummond, author of the article on the Sympathetic Nerves in "Todd's Cyclopædia," and a physiologist and pathologist of the highest promise, who was cut off prematurely. Another was Dr. John Kirk, now H.M. Consul at Zanzibar. He was the first to detect the fact that the Malpighian bodies of the kidney are usually the first seat of the change in that organ. Professor Sanders, of Edinburgh, was another of their band, and had worked at the subject in connexion with the spleen. Though they had not the iodine test then, they had clearly made out the distinctiveness of the change, and had not been misled by Meckel's statement that the material was allied to cholesterine. They had been inclined to regard the condition as a degeneration, not as an infiltration, and they were perfectly familiar with the fact of its association with suppuration, syphilis, and cancer. He had himself shown that sometimes the cancer nodules themselves underwent the change. But of course their knowledge was not nearly so precise as that now attained, and indicated in Dr. Dickinson's paper. His experience of the subject had now for many years been almost entirely clinical, and that would lead him to agree with Dr. Dickinson in almost every particular.

Dr. WILKS, also speaking at the invitation of the President, said all his observations on the subject had been made known long ago, but he had always felt that Dr. Dickinson's view was theoretically correct, and if the exact explanation were not the absence of potash, it must be something very like this.

The PRESIDENT remarked that, on account of the better treatment of wounds by the introduction of Lister's method of dressing, and the improved surgery of the joints, the lardaceous change was probably far less frequently seen in surgical patients than formerly, and the subject might therefore have a declining interest to surgeons. He inquired whether anything was known as to the occurrence of lardaceous disease in the lower animals.

The discussion was adjourned to the next meeting of the Society.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, MARCH 21.

Dr. STEVENSON, President, in the Chair.

THE minutes of the previous meeting having been read and confirmed,

Dr. DUDFIELD remarked that under the Order in Council recently issued for the proper management of dairies and milk-shops he had enforced the removal of five cases of small-pox to the Asylums Hospital. The owners of the milk-shop would have been liable to a penalty of £20 in default.

The Council presented a report, and a draft code of regulations for lodging-houses, framed under the provisions of the Sanitary Act, 1866, which were adopted.

Dr. A. Farr, Medical Officer of Health for Lambeth, was elected a metropolitan member. Dr. Shepherd T. Taylor, Medical Officer of Health for the Rural District of Norwich, was proposed as an extra-metropolitan member.

Letters were read from Mr. D. T. Whitaker and Professor Ansted.

A petition was read, which it is proposed to present to the House of Commons, in favour of the Buildings Act Amendment Bill, and suggesting certain alterations. The petition was ordered to be engrossed and sent to the local authorities of the metropolis.

The PRESIDENT made some remarks on the action of the Society, and of other public bodies, with respect to plague in Russia. He said it is our present policy to watch the action of the Government in respect of the spread of plague on the continent of Europe. It was difficult to understand how the Government could persist in opposing the almost unanimous views of the medical profession, including that of the medical advisers to the Local Government Board, in respect of the undesirability of providing complicated arrangements for quarantine. It had been suggested in some quarters that the gentlemen nominated by the College of Physicians to visit the plague-stricken districts would be made a "cat's paw" of by the Government for the purpose of advocating measures of quarantine. But the gentlemen who have gone out received no such instructions; they were simply required to examine the disease scientifically in respect of spread, treatment, etc., and to report to the Government. Should the disease visit these shores our port sanitary authorities will have ample means at their disposal for isolating all infected cases. It should be known that we are carefully watching the matter individually, but we see no reason at present to take corporate action.

A telegram was read from Dr. Buchanan, regretting that urgent business at the Local Government Board would prevent him from being present to watch the discussion upon the subject he had introduced at the previous meeting.

Dr. TRIPE resumed the discussion on the address by Dr. Buchanan, on "The Evidence of Prevalence of Summer Diarrhœa deducible from Old Bills of Mortality," and on the paper by Mr. Murphy, entitled "Autumnal Diarrhœa." In moving the adjournment of the debate, Dr. Tripe

said that he had wished to place before the Society certain tables, which he now handed to every member, giving percentage of deaths from diarrhœa in relation to certain variations of atmospheric temperature. He had been able to obtain reliable temperature observations since the year 1688. Diarrhœa may be of two kinds—the alvine form of old writers, and diarrhœa associated with some visceral disease. Epidemic diarrhœa is a disease prevalent only during the summer months. The two diseases ought to be carefully differentiated in our certificates of death for registration purposes. An important question raised by Mr. Turner, of Portsmouth, was—"How soon after the elevation of temperature in summer may we expect a fatality from diarrhœa?" The deaths began to be excessive after about eight days of high temperature. Another important question is—"Has diarrhœa been on the increase of late years?" During the decade 1851-60, there were 10,524 deaths per million of the population, as against 11,967 from 1861-70. He was able to confirm the observations of Dr. Buchanan by showing that the greatest mortality from this disease corresponded to the period between the thirty-first and thirty-seventh weeks of the year, having a mean weekly temperature of 60°. It is evident that the chief acting cause of this disease is elevation of temperature. In 1860 the summer was very wet and cold, and the mortality under this heading was very low. In London the construction of the sewers has been very carefully attended to, giving a good average fall for the sewage, and yet the percentage of mortality is about one in 2000 of the population. Dr. Crane had given considerable attention to this subject. He considered that the disease was more prevalent where the soil is water-logged, the radiation of heat and moisture from which, at a time when solar heat is very high, increasing the power of diffusion of pestilential gases. At Hackney the largest percentage of deaths from diarrhœa among infants has occurred in the better parts of the district, where the sewers are well ventilated. Since 1871 there had been considerable decrease in the percentage of zymotic disease, and this is due in great part to the action of the District Asylums Board providing more efficient means of isolation for infected cases, and not so much to improved sanitary arrangements. The best test of the sanitary condition of a district is the amount of tubercular disease and the prevalence of zymotic disease. There is probably some as yet undiscovered cause for the diffusion of this disease during the hot summer months when the temperature is above 60°. He concluded by submitting tables giving the statistics of mortality from diarrhœa in London at different seasons. The mean number of deaths weekly in 1859-61, during the prevalence of high temperature, was as follows:—

Below 50°	17,	*i.e.*, 3·9	per cent. for the year.
50°-60°	54	„ 11·9	„ „
60°-65°	126	„ 27·8	„ „
65°-70°	256	„ 56·4	„ „
Above 70°	413	during one week.	

To show the percentage of deaths among young infants in London during the summer months, Dr. Tripe had taken the mean temperature for ten weeks commencing July 1, 1860, with the result as follows:—

	Years.	Mean temperature for ten weeks.	Mortality per 1,000,000 population.	
London	1860	58·1°	151	Under one year.
	1862	59·0	189	
	1877	61·2	347	
	1874	61·7	447	
	1876	64·4	642	
	1878	63·7	576	
All England	1850-74	—	890·6	All ages.
	1862	59·0	552	
	1868	65·4	1,388	
	1870	62·7	1,366	

He then submitted tables to show that this, like all other diseases, is more fatal to males than to females, viz.:—

		Females.	
For 10 years	Deaths from diarrhœa, under 1 year	83·7	To 100 males.
	„ „ at all ages	92·7	
	Deaths from all causes „	95·7	
	„ „ under 1 year	79·5	

With a view of showing that the infantile mortality from diarrhœa at Leicester is not, as supposed, much above the average for England, he submitted the following table of deaths from diarrhœa under one year from 1861 to 1870:—

All England 83·7	London	87·5 females to 100 males.
	Liverpool	91·8 „ „ „
	Manchester	88·0 „ „ „
	Leicester	84·8 „ „ „

Dr. Barclay, of St. George's, said that it had been long pointed out by Dr. Farr that it was a mistake to associate syphilis with diarrhœa under the head of zymotic diseases in the nomenclature of diseases, as it leads to false conclusions. During the prevalence of cholera certain varieties of diarrhœa are prevalent in an epidemic form; and it is impossible to distinguish this from ordinary diarrhœa associated with a marked rise in atmospheric temperature. In it there is nothing communicable, no virus, nothing that spreads from one individual to another, and nothing which germinates in the blood. He agreed with Dr. Tripe that the sanitary condition of the dwellings has much more to do with checking the diffusion of this disease than the supposed communication through the sewers. If we had only cesspools we should have less chance of the propagation of typhoid fever. Simple diarrhœa is not a fatal disease with adults.

Dr. Dudfield remarked that in the summer of 1860 there was very little hot weather, and, relatively, very little diarrhœa. The fatal result may, in many cases, be traced to the bad management of the parents, giving unwholesome food, and the use of feeding-bottles with tubes that become quickly lined with putrid, cheese-like matter. It is very difficult to trace the cause as from the water-supply, and to know precisely what change takes place in the water under elevation of temperature. It would be well to trace how far the deaths from diarrhœa among infants have been brought about by hand-feeding. It is now much more the custom to bring up children in this way. Women are so much more eager to earn their living, and correspondingly to neglect to rear their children. The enormous growth of population in London, and the large families crowded in small and confined space, may be among the main factors in this disease.

Dr. Corfield, commenting upon the fact that more females die of this disease than males, remarked that this fatality is reversed in typhoid fever, small-pox, measles, and scarlet fever. He was surprised to hear any approval given to the existence of cesspools, for wherever these existed typhoid fever prevailed.

Dr. Fergus believed that, when the air was saturated with the products of decomposition, diarrhœa was prevalent. It is very rare to find well-water free from excremental pollution. Dr. Fergus then gave a demonstration of the experiments he had made upon the diffusion of gases through closet-traps.

Dr. Henderson, who had resided some time in Jamaica, said that diarrhœa became epidemic in those parts when the mango was ripening, as the children ate that fruit with great avidity. All the infants are breast-fed, and hardly any are attacked with diarrhœa.

Mr. Murphy said that Dr. Johnson's opinion that bacteria could only be found in the sewers during the prevalence of high temperatures was not borne out by his observations. Diarrhœa is found to be very uniformly distributed over the streets of a sanitary district.

Dr. Barclay remarked that possibly there is a difference in the pathology and etiology of diarrhœa of a choleraic kind and of sporadic diarrhœa. We must not forget that cholera often prevails in Russia, etc., in cold weather. He had found that 29 per cent. of infants wholly breast-fed died of diarrhœa. It is important we should inquire how often, in the houses where infants die of diarrhœa, the adults are suffering from the same disease.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 25.

John Erichsen, F.R.S., President, in the Chair.

On Perforating Ulcer of the Foot.

Mr. Wm. S. Savory and Mr. H. T. Butlin contributed a paper on the above subject. After some introductory remarks and

the relation of five cases of perforating ulcer which had come under their notice, the authors describe the general characters of the disease and discuss its pathology. From the symptoms which almost invariably accompany perforating ulcer, from their own examination of the leg after removal in two cases, and from reports given in other papers, the authors believed that the disease was due to central or peripheral nerve lesion especially affecting the sensory and trophic or vaso-motor nerves. Microscopic drawings of the condition of the nerves in two cases accompanied the paper.

The PRESIDENT remarked on the rarity of the cases, but that the most important point raised was their nervous origin. Strong evidence on this point had been adduced by the authors, and Dr. Weir Mitchell had described certain neuroses of the foot and hand, especially of the former, marked by various signs of imperfect nutrition, such as hyperæsthesia, œdema, coldness, etc. These facts seemed to point in the same direction as did those now brought forward —that nerve-affections might have a localised effect in a limb.

Professor HUMPHRY said that in each instance a corn seemed to have been present at the seat of the ulcer, and the question arose, how far this might be the cause of the nerve-action. In all the cases the disease was described as leading down to bone in an advanced stage, and with evidence of defective nerve-supply; but it was a question whether in the earlier and simpler stages there was any nervous lesion. Slight cases were not often seen, and one good effect would be that this paper would draw the attention of surgeons more forcibly to corns. A corn is not merely a cuticular growth, but affects the papillary layer of the skin also, and as it advances this is more and more deeply affected, and sometimes, as a result of this, inflammation is set up, spreading deeply into the foot, the pus burrowing in various directions. Might not the nerve-irritation be the result of some part of this process as regards the corn? The perforating ulcers, too, were most common where the worst corns occurred—namely, over the metatarso-phalangeal joint of the great and middle toes. He also referred to the comparison as regards leprosy, and said that this "corn ulcer," as he preferred to call it, would in this respect resemble a compound of the two kinds of leprosy, the tubercular and the anæsthetic.

Dr. DUKA thought that the drawing exhibited of one of these ulcers on the sole of the foot presented a striking resemblance to certain forms of leprosy as seen in the East, especially in the anæsthetic, though sometimes also in the tubercular form. In these a perforating ulcer, penetrating to the bone, was frequently seen.

Mr. EDWARD OWEN mentioned two cases of the disease he had seen at St. Mary's. A carpenter, much troubled by corns, had one by one had the greater part of his toes removed. The toes were deformed, and the phalanges necrosed. There was marked impairment of the sensory nerves in the sole and the dorsum, so that the malady bore a strong resemblance to anæsthetic leprosy. He did not think that the perforation was due to the pus burrowing for an outlet. In the other case, that of a professional pedestrian, the sole of the foot was ulcerated, the dorsum was anæsthetic and covered by white patches, and the toes were deformed.

Dr. THIN held that these cases of perforating ulcer had nothing in common with leprosy, in which was a distinct new cell-growth invading and destroying tissues.

Mr. MORRANT BAKER asked if there was any contraction of the extensor tendons. It was a common belief that such contraction favoured the development of such ulcers by throwing the weight of the body on to the ends of the metatarsal bone. Such contraction might itself be due to some nerve-affection. That the explanation of the production of the ulcers by nerve-lesion was the true one he had no doubt. A paraplegic patient came to him with an ulcer on the foot, for which amputation was necessary. There was no pressure on the foot, for his paralysis compelled him to walk with crutches. Some time after, an ulcer of similar character appeared on another toe.

Mr. GAY did not think that a corn always preceded the formation of the ulcer. He mentioned a case illustrative of the inveteracy and incurability of these ulcers. A gouty subject, of about fifty, after an injury, lost sensibility in the great toe, and after a time an ulcer formed on the ball of the toe. This would not heal, and, although Mr. Gay tried to cure it by transplantation of skin from the neighbourhood, still fresh ulceration appeared at the margins, and the patient's state remained as before.

Mr. GASKOIN could not accept Dr. Thin's assertion as final, for he believed there was affinity between this "perforating ulcer" and anæsthetic leprosy, and he thought some writers mentioned new cell-formations in the nerves in the former as in the latter affection.

Mr. BARWELL referred to a paper by Fischer, who in 1875 advocated the neuro-paralytic doctrine of the formation of these ulcers. He himself thought Professor Humphry's view could not be sustained, for corns were extremely common, and were usually seated not at the sole of the foot, but on the back of the little toe. At the same time a suppurating corn might lead to necrosis and considerable mischief in the foot.

Mr. SAVORY, in reply, said that appended to the paper was a full bibliography, where Fischer's work was alluded to, but the most original paper was one by Duplay and Morat. Facts would not support Professor Humphry's view, for all perforating ulcers do not begin in corns. There was one case in which the ulcer reappeared again and again after amputation, and usually evidence of nerve-lesion preceded the local affection. Again, the change in the nerve was often more advanced in the upper than in the lower part. That the disease often commenced in the site of corns was undoubted, probably because these were parts much subjected to pressure; and their view was that, owing to malnutrition from the nerve-change, these parts suffered from such pressure. As to leprosy, he remarked that resemblance in certain features by no means established identity of disease. The fact of defective nutrition from nerve-change was of great importance as regards the results of operations, especially at the present time, when so much attention is being paid to the external conditions of wounds, to the disregard of the condition of the parts cut through.

Mr. BUTLIN also replied.

MELANODERMA OR DARK MACULA IN THE FACE, WITH CORRESPONDING CHANGE IN COLOUR OF THE HAIR.

Mr. G. GASKOIN, in his paper, described this case as one of melanoderma in the cheek, the size being less than that of half-a-crown. It was somewhat lobulated, but well defined, unilateral, situated on the right side of the face near the nose. The colour was intensely dark. It was not repeated in any region, and there was no resemblance of it elsewhere. The female who was the subject of the blemish or stain had undergone a previous change in the colour of her hair, which had turned from red (carroty) to black. The change took place when she was thirty years old, the disfigurement upon her cheek only commencing some nine years later; she was now forty-five years of age. All the near relatives of this woman were of light complexion with carroty hair and light eyes. This was especially the case with her mother, and obtained with her brothers and sisters, and even with her children, but the patient's father, now deceased, was of dark hair and complexion, and she alone of his descendants took after him in the colour of her eyes, which were of brown shade or hazel. There was no instance of similar change in the family or blemish on the skin; no very strongly marked diathesis, cancer, melanosis, or prevailing disease. There was no admixture of foreign blood.

EXTENSION OF THE METROPOLITAN AREA.—At the usual weekly meeting of the Metropolitan Board of Works, held on the 4th inst., a resolution was carried that an application be made to her Majesty in Council for authority to include within the metropolitan area the parish of West Ham. In support of this motion it was shown from certain sections of the Act of Parliament that it was clearly the intention of the Legislature that suburban districts should be added to the metropolitan area, and so be brought under the jurisdiction of the Board. As far as Woolwich on the south side of the Thames came into the metropolitan district, and there was no reason why West Ham on the north, not more than half the distance, should not come under the same jurisdiction, more especially as the drainage of West Ham found its way into the river Lea, and by that channel into the Thames. There was some opposition to the resolution, but on a division it was carried by a large majority.

NEW INVENTIONS AND IMPROVEMENTS.

CHAMPIGNY, WHITE AND RED.

We have received from Messrs. Mears and Co., of 66, Mark-lane, samples of newly imported wine called "Champigny," and described to us as coming from a district of that name in the valley of the Loire. The red is a remarkably soft-tasting, delicately flavoured wine, apparently very different to Bordeaux, and having a peculiar and agreeable character of its own. The white is a clean, smooth, and highly refreshing wine, and both are very cheap. We have had one sample of the wine of 1872, and can vouch for its excellent preservation. It is a good sign for the public taste that wines of this class seem to possess increasing popularity and a ready sale.

PURE MONTILLA SHERRY.

Messrs. Denman and Co., 20, Piccadilly.

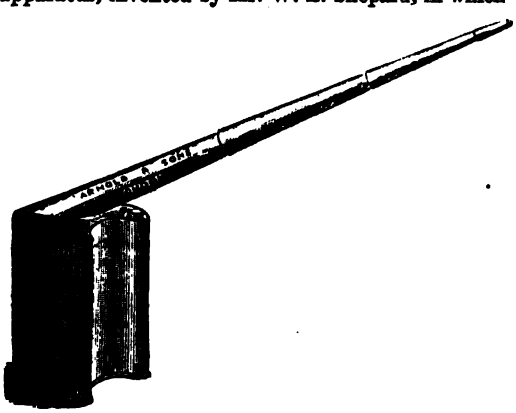
This wine affords further evidence of the remarks we have lately made on the increasing preference for purity, lightness, and fragrance, over strength. This is a Spanish wine, which, though called sherry, yet seems to belong rather to the class of light wines, for it has quite the fruity, clean taste of the grape, without any heat from added spirit that can be detected. It will please the younger people by its lightness, and may by its stoutness propitiate the older people, who expect *some* effect when they drink a glass of sherry. It is a very cheap wine, but one that is very drinkable and does not hang fire. We know not whether it is imported at the shilling duty or above it; but on the subject of the wine duties we must have a word to say on a future occasion.

PEPTOCOLOS, OR COMPOUND PEPSINE WINE.

This preparation claims to be simply pepsine wine, to which are added other natural elements of the process of digestion, such as pancreatin, diastase, lactic and hydrochloric acid. We know that its employment in dyspepsia has been found effective, and its taste pleasant. It is prepared by John Richardson and Co., Friar-lane, Leicester. The dose is one or two teaspoonfuls, in sherry or water, after meals.

PATENT VAPORISER.

The severe and long-continued winter weather appears to have acted as an energetic stimulant on the contrivers of new forms of bronchitis-kettles and inhalers; and Messrs. Arnold and Sons, of West Smithfield, have now brought out an apparatus, invented by Mr. W. L. Shepard, in which the



means of collecting and conducting vapour seems to be reduced to the very simplest form possible. The apparatus may be used as a bronchitis-kettle, an inhaler, or a portable vapour bath. The vaporiser, which has no bottom, is placed in a saucepan or other convenient vessel, in a few inches' depth of water, and then placed on the fire, on a stove, or over a spirit-lamp, and, owing to the shape of the spout of the vaporiser, the water can be renewed without removing the apparatus. Should it be allowed to boil dry, the containing saucepan or other vessel alone suffers, and not the vaporiser, as the latter has no bottom to be burnt. Inside the lid of the vaporiser is a perforated chamber, in which drugs can be placed, should medicated vapour be desired. If an inhaler is wanted, the long tube may be removed, and replaced by the short indiarubber tube with glass mouthpiece; while a vapour bath can be obtained by introducing the end of the long steam-tube under the bed-clothes properly raised and arranged. The price of the apparatus is only five shillings, or, with saucepan and spirit-lamp, seven-and-sixpence.

LAC BISMUTHI; LAC BISMUTHI ET CERII.

We have received from Messrs. Symes and Co., manufacturing chemists, of Hardman-street, Liverpool, specimens of the above preparations. The salts contained in them are presented in the form of the hydrates of bismuth and of cerium—that is, they are in actual chemical combination with water,—and it is stated that in this form they are found to be highly active. They are only mechanically suspended in the fluid vehicle, and they quickly subside, so that the bottle requires to be shaken before taking a dose from it. But the deposit shakes up easily, and is readily again diffused through the liquid. The doses are, one to two teaspoonfuls; and may be taken in water only, or in combination with alkalies and other drugs. We have not had any opportunity of testing the special activity of the hydrate of bismuth, but the "Lac Bismuthi" is certainly a convenient form of the medicine; and both the preparations seem worthy of trial in cases of vomiting arising from pregnancy, and in some cases of irritable stomach.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 7th inst., and when eligible will be admitted to the pass examination:—

Ashby, John, student of the Leeds School.
Ashdown, George W. W., of the Edinburgh School.
Barron, Alexander, of the Liverpool School.
Blore, Isaac, of the Manchester School.
Bolton, Joseph S., of the Birmingham School.
Brown, James G., of the Liverpool School.
Brown, James W. H., of the Leeds School.
Chittenden, Thomas H., of St. Bartholomew's Hospital.
Cowan, George H., of St. Thomas's Hospital.
Dearden, John W., of the Leeds School.
Fletcher, Henry J., of the Manchester School.
Fraser, James W., of the Edinburgh School.
Harris, Thomas, of the Manchester School.
Hayes, James, of the Manchester School.
Hopkins, John W., of the Leeds School.
Joseph, James F., of the Liverpool School.
Kershaw, Hugh, of the Leeds School.
Mayo, Frank H., of the Leeds School.
Milburn, Charles H., of the Newcastle School.
O'Donovan, George R., of the Edinburgh School.
Robinson, Charles W., of the Newcastle School.
Robinson, Frederick G., of the Manchester School.
Robinson, William, of the Newcastle School.
Rogerson, John T., of the Manchester School.
Sherrard, Cæsar, of the Cork School.
Taylor, David, of the Belfast School.
Webb, Malcolm, of the Manchester School.
Whitaker, John, of the Manchester School.

The following gentlemen passed on the 8th inst.:—

Aldous, Thomas, student of University College Hospital.
Bush, James P., of the Bristol School.
Butterworth, Samuel, of the Manchester School.
Clegg, Joseph, of the Manchester School.
Dakin, William R., of the Manchester School.
Ellis, John W., of the Liverpool School.
Fitch, Richard A., of the Birmingham School.
Harris, David P., of the London Hospital.
Herringham, Wilmot P., of St. Bartholomew's Hospital.
Holdsworth, Arthur T., of the Birmingham School.
Humphreys, William C., of the Bristol School.
James, Charles A., of St. Bartholomew's Hospital.
Kilham, Charles S., of the Sheffield School.
Parkinson, Charles J., of the Manchester School.
Sharples, Thomas, of the Sheffield School.
Spratt, William J., of the Belfast School.
Williams, Robert, of the Liverpool School.

The following were the questions on Anatomy and Physiology submitted to the 213 candidates at the written examination on the 4th inst., when they were required to answer at least four questions, including one of the first two out of the six questions, viz.:—1. What are the functions of the facial nerve? What would be the effects of division of this nerve on the organs of special sense? and how would

these effects be produced? 2. What are the peculiarities of the circulation within the cranium? State the position, composition, and functions of the cerebro-spinal fluid. 3. Describe the muscles attached to the fibula, with their nerve-supply. 4. Describe the position of the heart in the chest, and the relations of the several valves to each other and to the walls of that cavity. 5. Describe the anatomical relations of the rectum, and the origin and course of its arteries and veins. 6. Describe accurately the articular and muscular mechanism by which the arm is raised from the side, from the vertical downward to the vertical upward position. In mentioning any muscle, note its attachments and nerve-supply.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 3:—

Bentham, Newton, Victoria-park-road, South Hackney.
Bunn, Charles Grinling, 11, Finsbury-square.
Duncan, William Archdeckne, St. Thomas's Hospital.
Flanagan, Harold Edward Bickerson, Woolwich.
Laing, William Alexander Gordon, Brough, Penrith.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Pickering, Robert Whitmore, Manchester Hospital.
Pound, Francis Joseph, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BOWD, J. W., M.R.C.S.E., L.S.A.—Resident Medical Officer to the St. Pancras and Northern Dispensary, *vice* W. W. Taunton, B.Sc., M.R.C.S.E., resigned.

BOURNS, N. W., M.R.C.S.E.—Resident House-Surgeon and Registrar to the Cancer Hospital, *vice* W. C. Jeffries, L.R.C.P. Edin., resigned.

WOODROFFE, J. F., M.B. Dub.—Resident Medical Officer to the Bournemouth Dispensary, *vice* J. R. Salter, M.R.C.S., L.S.A., resigned.

BIRTHS.

BARK.—On March 31, at 87, Aston-road, Birmingham, the wife of Ernest Bark, L.R.C.P., of a son.

BOYS.—On April 4, at Lodway Villa, Pill, near Bristol, the wife of A. H. Boys, M.R.C.S. Eng., L.R.C.P. Edin., of a daughter.

GIBSON.—On March 29, at Derby-road, Northend, Portsmouth, the wife of Surgeon-Major E. A. Gibbon, L.K.Q.C.P.I., of a son.

HART.—On March 30, at 58, Pier-road, Erith, S.E., the wife of P. Neville Hart, M.B., of a son.

O'BRIEN.—On April 7, at 26, Somerleyton-road, Brixton, the wife of Surgeon B. O'Brien, M.D., Bengal Medical Service, of a son.

MARRIAGES.

GODFREY—BANKS.—On April 1, at Kilmeston, Charles Walter Godfrey, M.R.C.S.E., of Howden, to Emily, elder daughter of the late James Banks, Esq., of Wreasle Castle, Yorkshire.

WOODFORDE—TIDD.—On April 5, at Marylebone Church, Alfred Woodforde, M.R.C.S., of Plaistow, Essex, to Ada Sarah, youngest daughter of the late John Tidd, Esq.

DEATHS.

BUSHELL, FLORENCE HELEN, infant daughter of S. W. Bushell, M.D., at the British Legation, Peking, on March 10.

CASE, WILLIAM, L.R.C.P. Edin., at Fareham, on March 29, in his 68th year.

COMYN, STEPHEN EDWARD, M.D., at Roxborough, Limerick, on March 30, aged 61.

DOUGALL, JOSEPH, M.D., F.R.C.P.E., Surgeon-Major Madras Army, at Port Blair, Andamans, on February 9, aged 48.

JOHNSON, FREDERICK WM., M.R.C.S. Eng., late of H.M.E.S., at the Cottage, Watlington, Norfolk, on February 6, aged 59.

SHARKEY, EDMUND DE LA GARDE, Bombay Civil Service, eldest son of Edmund Sharkey, M.B., of Ballinasloe, Ireland, at Baghalkobe, Bombay, on February 18.

TAPSON, ALICE, youngest daughter of John Tapson, M.D., formerly of Clapham, Surrey, at 12, St. German's-place, Blackheath, on April 5.

WESLEY, WILLIAM KERR, M.R.C.S., youngest son of the late Samuel Sebastian Wesley, at Chichester, on April 5.

WOODHOUSE, RICHARD THOMAS, M.D., on March 29, aged 78.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials as to character and ability, to Hugh Mason, Esq., Ashton-under-Lyne, on or before May 3. Applicants to state age.

DUDLEY DISPENSARY.—Resident Medical Officer. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, and hold a medical and surgical diploma and be registered. Applications, with testimonials, to the Hon. Secretary, Russells Hall, Dudley, on or before April 26.

NOTTINGHAM DISPENSARY.—Assistant Resident Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons, England, Edinburgh, or Dublin, or of the Faculty of Glasgow, and Licentiates of the Royal College of Physicians at London, Edinburgh, or Dublin, or Licentiates of the Apothecaries' Company, and duly registered. Testimonials to the Committee at the Dispensary, on or before May 5.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Physician for the Diseases of Women, and an Ophthalmic Surgeon. The Physician must be a Fellow or Member of the Royal College of Physicians of London; and the Surgeon a Member of the Royal College of Surgeons of England. Both gentlemen will be required to give clinical instruction to the students of the London School of Medicine for Women. Applications, with testimonials, to the Secretary, on or before April 30.

VINEGAR IN UTERINE HÆMORRHAGE.—Prof. Penrose recommends vinegar for post-partum hæmorrhage for the following reasons:—1. It can be easily obtained. 2. It can be easily and instantly applied without apparatus. 3. It has never failed in his practice. 4. It is sufficiently irritating to excite the most sluggish uterus to contraction, and yet not so irritating as to be subsequently injurious. 5. It is an admirable antiseptic. 6. It acts upon the living membrane of the uterus as an astringent. A rag saturated with vinegar is to be carried into the cavity of the uterus and squeezed.—*Boston Med. Jour.*, January 30.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

A HINT TO INVENTORS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Of all the "ills that flesh is heir to" there is none more distressing than insomnia. It not only injures the body, but, what is of more importance, robs the mind of its health. For sleep is, so to speak, the natural food of the brain, and its want is equivalent to a meal lost to the body. Protracted sleeplessness means brain-starvation. If sleep—uninterrupted sleep—is a blessing to those in sound health, to the weak and invalided it is an absolute necessity. Yet is it precisely these—the vulnerable weak—they who, in fact, are most in need of the sleep that "medicines all pain," who are oftenest deprived of their night's rest. To them the absolute silence of the hour is but a treacherous calm, for the slightest noise that ruffles the smooth surface of the night with its rippling wave-sounds is enough to break the spell and hastily summon them from the land of dreams. Now, what is it that disturbs sleep? Noise? Not altogether, for the inhabitants of besieged towns have been known to sleep through the roar of bombardment, and to waken suddenly when the firing ceased. Millers will sometimes start up from sleep, awakened by the mere stopping of the mill-wheel. The rattle of a train in motion will induce sleep, as all travellers know. And last, not least, the sleep of infants—the sweetest and soundest sleep of all—is promoted by sound. The popular view, then, that noise disturbs sleep, like most popular views, only touches the truth, but does not grasp it. The true cause of disturbance is—interruption. Any sudden cessation of the continuity of silence, or of sound, awakens the sleeper; for sound, provided it be monotonous, has precisely the same effect on the brain as silence. That simple piece of mechanism, the alarum clock, is based on the theory of interruption—it interrupts silence. Now, might not an equally simple contrivance be made on the same mechanical principles, but with the reverse object—viz., that of insuring sleep by sound? Its utility, to delicate persons especially, would be undoubted. Call it the morphiometer, the somniferant, or give it a French title, and christen it the *garde-somme*, or sleep preserver—a name, by the way, that would truly designate its object. For its real object would not be so much to promote sleep as to insure the sleeper against disturbance (the vulnerable side of light sleepers) by placing a bulwark of sound between him and the sudden shocks of extraneous noise. Let your sleep-preserver produce the drowsy, monotonous buzz of the humming-top, not so loud as to be heard in an adjoining room, but loud enough to drown distant noises when placed close to the bedside or hung over the pillow. I am, &c., NOX.

American Cattle Importations.—The shipment of American cattle to England has, it seems, almost ceased since the recent stringent rules were adopted. The Americans strongly object to the provision requiring slaughter at the port of entry within ten days after landing. They complain that the expense of this, and the inability to wait for a market if the prices are unfavourable, take away all chance of profit. It is stated the pleuro-pneumonia "scare" has not amounted to much. It has never prevailed in the West, where the cattle shipped are raised. It is being energetically stamped out in Long Island, where it attained the greatest extent; and at Alexandria, Virginia, and near Philadelphia, where a few cows some time ago sickened, it has been thoroughly eradicated.

"*Bad Times.*"—At a late meeting of the Liverpool Health Committee, in consequence of the Corporation having decided, owing to the "bad times," not to give the usual May-day dinner to the Corporation carters, it was proposed to distribute £100 among the men—a motion which was negatived by six votes to four. Another sign of "bad times" is a statement made at a recent meeting of the Liverpool Workhouse Committee—namely, that the number of vagrants relieved the week before was believed to be the highest on record. At a meeting of the Manchester Board of Guardians it was reported that 3932 persons had received outdoor, and 3941 indoor, relief during the previous week.

Mr. Williams.—So long ago as 1865 Mr. Quain submitted the following motion at a meeting of the Council—"That it is expedient that the Council should make a report annually to the Fellows on the state of the College, at a meeting summoned for the purpose." It was subsequently declared inexpedient, but the credit is unquestionably due to Mr. Quain.

Dr. McCormack, Netley.—The following are the salaries of the gentlemen mentioned, viz.:—Director-General Sir W. M. Muir, £1500; Surgeon-General W. Munro, C.B., £1200; Deputy Surgeon-General J. Irvine, M.D., £950; Deputy Surgeon-General J. M. S. Fogo, £850. All of the Army Medical Department, Whitehall-yard: The Director-General of the Medical Department of the Royal Navy, Sir A. Armstrong, receives £1300; Assistant Director-General Dr. Pickthorn, £847.

Dr. Kitchener.—We cannot tell you the composition of "squab-pie"; it is peculiar to Cornwall, as the "white pot" is to Devon. Dr. King, in his "Art of Cookery," says:—

> "Cornwall squab-pie, and Devon white-pot brings,
> And Lei'ster beans and bacon, fit for kings."

The Parkes Museum of Hygiene.—This Museum is, we are glad to find, making, although slow, satisfactory progress in many respects, and the collection is assuming considerable proportions. Mr. Mark H. Judge has been appointed curator; and it is hoped that shortly the Museum may be thrown open to the public. A synopsis has been drawn up, and by its help, and the classification of the articles now arranged, a pretty accurate idea may be obtained of the scope proposed for the new institution. It is intended to establish a laboratory under the direction of Professor W. H. Corfield, "as a practical school of hygienic research." Until the throwing open of the Museum to the public, full information, and tickets to view the collection, will be supplied on application to the curator.

Baby-Desertion and Foster-Mothers.—A device, which it seems is systematically and extensively adopted in the metropolitan district by parents wishing to get rid of their infants, is to put them out to nurse, pay a week's charge in advance, and then disappear altogether. At a recent meeting of the Brentford Board of Guardians this subject was discussed. A letter received from the authorities of the Kingston Union was read, which stated that a poor woman in that district had lately answered an advertisement as to taking a child to nurse, and the persons who brought the child, having paid a week in advance, had not been heard of since. At Hounslow a similar case had occurred; and the Guardians of Kingston had come to the opinion that babies were now systematically disposed of in this way. After consultation with the police on the question, they had resolved to act upon the case as one of desertion, and had offered a reward of ten guineas for the apprehension of these tricky fugitives; and hoped the Guardians of Brentford would co-operate with them, and increase the reward to twenty-guineas. This the latter have consented to do, remarking that "it was a disgraceful practice and should at once be put a stop to."

Urban and Rural Sanitation.—The Corporation of Leeds are about to erect a new "destructor" at Armley-road. A similar apparatus was erected eighteen months ago at the Sanitary Depôt, Burmantofts; and it is in consequence of the satisfactory result of the experiment that the Sanitary Committee have now determined to extend the system. The Committee had much trouble and expense in disposing of rubbish swept from the streets or emptied from ashpits. This difficulty has, however, been solved by Mr. Fryer's patent, which has been proved to work well in Manchester and other towns. As the patent carboniser at Burmantofts is equal to dealing with the whole of the animal or vegetable matter found among the market refuse or street sweepings, only a "destructor" will at present be built at Armley-street. The Axminster Board of Guardians have decided to carry out sewerage works at a cost of £3000, and of water-supply at an estimated expense of £2500. The Great Yarmouth Town Council are considering plans for providing additional house accommodation for the working-classes on waste lands in their possession close to the town. The Town Council of Harwich have obtained the sanction of the Local Government Board to borrow £10,000 for the purpose of drainage works.

Capable or Incapable?—The conflict of medical opinion exhibited in the following case is to be regretted. At the Thames-street Police-court, a young woman, aged twenty-eight, of diminutive stature, was charged with refusing to perform her lawful task as an inmate of the Poplar Union. Dr. Grey, the Union doctor, who was in court, stated, in reply to the magistrate, that he had seen the woman, and thought she was perfectly competent to perform the work she had given her to do. He had not examined her with the stethoscope. The magistrate asked him to do so—which was done in the gaoler's room, and Dr. Grey afterwards stated that he found her lungs were in a good state, and he still adhered to the opinion he previously expressed. The magistrate hereupon said he should like the woman to be examined by the divisional surgeon of police—for which purpose the woman again left the court. Dr. Horton afterwards stated that he had examined the woman. She had nothing the matter with her lungs, but she was in a nervous, debilitated state, and quite unfit to perform the work which she said had been assigned her to do. She might manage a little light cleaning or needlework, but that was all she was competent to do. The magistrate upon Dr. Horton's evidence discharged the woman.

The Winter of 1878-79.—Mr. R. A. Proctor, in comparing the cold of the past few months with previous winters, states—"The winter of 1878-79 must be regarded as the coldest we have had during at least the last score of years, and probably during twice that time. It was not characterised by exceptionally severe short periods of intense cold, like those which occurred during the winters of 1854-55, 1855-56, and 1860-61, but it has been surpassed by few winters during the last two centuries for constant low temperature and long-continued moderate frost. During the last ninety years there have been only four winters matching that of 1878-79 in these respects."

The New Meteorological Forecasts Experiment.—The London Meteorological Office has commenced the experiment to which we recently drew attention. Information as to the winds and weather will now be given at least twenty-four hours in advance. The distinguishing feature of the present scheme is the publishing a series of forecasts which will indicate the weather in the different districts of the United Kingdom. Great Britain and Ireland are divided into eleven separate localities, and observations will be taken founded upon all the available distinct data respecting each. The advantage to the public of the localisation of such predictions will, of course, be considerable. The experiment is, no doubt, based upon long and well-tested statistics and experience, and these forecasts will be a public benefit if in the main they are accurate. By the payment of a shilling, and the cost of the message and the reply, the latest information as to the state of the weather in any part of the United Kingdom may be obtained from the Meteorological Office by telegraph.

Bicycles: a Legal Decision.—The following decision, in the case of an appeal against a magistrate's conviction as to an accident caused by a bicycle, is worthy of notice. It will, no doubt, facilitate some legal control over these noiseless and rapidly driven vehicles in our thoroughfares. The questions which came before the Queen's Bench Division in this case (Taylor *v.* Goodwin) were, "Is a bicycle a cart or carriage, and can a man be said to 'ride' or 'drive' it?" The defendant, riding upon a bicycle down Muswell-hill, upset Mr. Taylor. The defendant did not call out, and no bell was attached to the bicycle. He was convicted by the magistrates at Highgate of furious driving: hence the present appeal. Mr. Justice Mellor and Mr. Justice Lush affirmed the conviction; consequently a bicycle may now be deemed a carriage, and that a man may ride upon it.

The Metropolitan Board of Works and Hackney Common.—The preservation of commons for the public use is nowadays so popular a question that we may call attention to the following case:—An information and bill (Attorney-General *v.* Amherst), at the relation of the Metropolitan Board of Works, was heard in the Court of Chancery Division last week. The bill was to restrain the defendant, the lord of the manor of Hackney called Lordshold, from enclosing any part of the Hackney Common, or digging and carrying away gravel therefrom. Under the Metropolitan Commons Act, 1866, and a scheme made in pursuance of it, which was subsequently sanctioned by Act of Parliament, the Metropolitan Board of Works were appointed conservators of Hackney Common. The scheme contained a saving clause of the rights of certain parties; and one of the questions argued was whether the defendant was within this saving clause. The Master of the Rolls, in giving his judgment, said that the Board of Works were appointed to preserve the commons, but they had no power to interfere with the rights of the lord of the manor. The defendant had made some small enclosures with the consent of the homage, which did not interfere with the rights of the commoners. He had dug gravel, but he had always dug it on his own Lammas lands, and did not claim to do otherwise. The bill was framed on the assumption that the defendant was not within the saving clause in the scheme, and must be dismissed with costs.

Artisans' Dwellings and Philanthropy.—At the last meeting of the City of London Common Council, a deputation from the Farringdon Ward presented a petition in reference to carrying out the provisions of the Holborn Valley Improvement Act, and also that the necessary steps might be taken for the erection of dwellings and lodging-houses for the poorer classes upon some portions of the vacant sites belonging to the Corporation. The deputation urged that immediate steps be taken in respect to these matters. In course of the observations which ensued on the subject, a Common Councillor remarked on what the Corporation had done, and that the Court should continue, in their own way, in the work of erecting dwellings, and they would set an example to the Imperial Parliament which would be worth notice. The Corporation had, by erecting houses for the poor, accommodated over a thousand persons in decent, comfortable houses, at a moderate rent, without it costing the Corporation or anybody else one shilling. In Golden-lane, where the Commissioners of Sewers had obtained an Act to erect dwellings, they had to turn out 2000 people, and the cost for the erection of new buildings would fall on the ratepayers to the extent of £100 per head on each man, woman, and child ejected. This was an Act of Parliament of which the Home Secretary was proud! Another Common Councilman said he "objected to people posing as philanthropists, and taking 5 per cent., with an increase of value of their property." The petition was referred to the Improvement Committee.

Healthy Resorts, Birmingham.—On Saturday last the new park at Small Heath, which has been presented to the town of Birmingham by Miss Ryland, was opened by the Mayor, who, in addition, has contributed £4000 towards the expense of laying it out. The park is about forty-one acres in extent, and is the second given to the town by Miss Ryland. The Corporation are now in possession of eight parks and recreation grounds in and around the borough.

COMMUNICATIONS have been received from—

Professor Flower, London; Mr. E. D. Starkey, Dublin; The Honorary Secretary of the Association of Surgeons Practising Dental Surgery; The Registrar of Apothecaries' Hall, London; Mr. George Field, London; The Secretary of the National Health Society, London; Dr. C. Meymott Tidy, London; Mr. M. S. Valentine, Richmond, U.S.A.; Dr. B. W. Richardson, London; Mr. J. M. McFarlan, Stirling; Mr. E. L. Hussey, Oxford; Dr. Taylor, London; Dr. John Williams, London; Mr. Frank Flower, London; Dr. J. Pearson Irvine, London; Dr. J. R. Wolfe, Glasgow; Mr. John Chatto, London; Mr. D. Colquhoun, London; Mr. T. M. Stone, London; Mr. R. J. Godlee, London; Dr. James Arnott, London; Mr. Tom Bird, London.

BOOKS AND PAMPHLETS RECEIVED—

Arthur A. Kinsey, The Education of the Deaf on the "German" System—Edward W. Cox, The Mechanism of Man; The Mechanism in Motion—Thomas W. Poole, M.D., M.C.P.S. Ont., Physiological Therapeutics; A New Theory.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Physician and Surgeon—Obstetrical Journal—Indian Medical Gazette—Birmingham Medical Review—Boston Journal of Chemistry—Boys' World.

APPOINTMENTS FOR THE WEEK.

April 12. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

14. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

15. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Discussion on Lardaceous Disease, continued. Dr. Ralfe, "Iodine Reaction with Casein, Santonin, and Fibrin"; Reply by Dr. Dickinson. Mr. Parrot (of Paris)—Specimens of Bone Disease in Congenital Syphilis. Dr. Leech (of Manchester)—Specimens and Photographs from a Case of Addison's Disease.]

16. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Association of Surgeons Practising Dental Surgery, 8½ p.m. Casual Communications.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Harveian Society, 8½ p.m. Dr. J. W. Langmore, "On Contracted Kidney in Young Subjects" (Discussion). Dr. Buzzard, "Cases of Nerve Disease." Dr. Cleveland, "Case of Recovery from an Excessive Dose of Chloral Hydrate." Dr. Morton, "On the Diphtheria Outbreak of Last Spring in N.W. London."

18. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m. Dr. Allen Sturge, "On a Case of Partial Epilepsy, apparently due to Lesion of one of the Vaso-Motor Centres of the Brain" (patient will be exhibited); also "On a Case of Rare Vaso-Motor Disturbance in the Leg." Mr. A. P. Gould, "On a Case of Amputation at the Hip-Joint in which the Iliac Arteries were compressed per Rectum." Dr. Crocker, "On a Case of Ichthyosis of Unusual Character." Mr. Hulke, "On a Case of Retention of Urine caused by Impermeable Urethral Stricture, treated by tapping the bladder above the pubes, and later by external section of the stricture—a catheter passed through the bladder, and a staff per penem as far as the obstruction, being used as guides."

Society of Medical Officers of Health, 7½ p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 5, 1879.

BIRTHS.

Births of Boys, 1309; Girls, 1301; Total, 2610.
Average of 10 corresponding years 1869-78, 2390·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	987	971	1958
Average of the ten years 1869-78	844·9	774·8	1619·7
Average corrected to increased population ...	...	...	1733
Deaths of people aged 80 and upwards ...	...	...	98

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	6	7	4	1	11	...	1	...	1
North ...	751729	2	8	11	1	18	...	2	...	6
Central ...	334369	...	2	1	...	3	...	...	...	1
East	639111	1	15	2	1	21	...	4	1	8
South	967692	8	11	6	7	25	..	4	1	7
Total	3254260	17	43	24	10	78	...	11	2	23

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·523 in.
Mean temperature	45·4°
Highest point of thermometer	57·4°
Lowest point of thermometer	32·0°
Mean dew-point temperature	39·1°
General direction of wind	S.W.
Whole amount of rain in the week	0·22 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 5, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending April 5.	Deaths Registered during the week ending April 5.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2610	1958	57·4	32·0	45·4	7·44	0·22	0·56
Brighton	105608	44·9	68	45	55·2	36·7	44·7	7·03	0·57	1·45
Portsmouth ...	131821	29·4	83	50	...	...	...	...	...	...
Norwich	85222	11·4	76	22	54·2	34·5	43·9	6·61	0·19	0·48
Plymouth	74293	53·3	45	35	55·5	34·0	44·8	7·12	0·25	0·63
Bristol	209947	47·2	143	120	...	...	...	...	...	...
Wolverhampton ...	75100	22·1	64	52	55·0	28·0	41·6	5·34	0·17	0·18
Birmingham ...	388884	46·3	338	231	...	...	...	...	...	...
Leicester	125622	39·3	104	60	56·8	31·5	44·1	6·73	0·13	0·33
Nottingham ...	169396	17·0	134	105	59·9	26·2	43·3	6·28	0·13	0·33
Liverpool	538338	103·3	452	278	52·8	34·5	42·9	6·06	0·14	0·36
Manchester ...	361819	84·3	273	205	...	...	...	...	...	...
Salford	177849	34·4	152	95	...	...	...	...	...	...
Oldham	111318	23·9	76	40	...	...	...	...	...	...
Bradford	191046	26·5	108	63	53·4	32·2	42·8	6·00	0·30	0·76
Leeds	311860	14·5	243	146	53·0	33·0	41·7	5·39	0·38	0·97
Sheffield	297138	15·1	207	132	55·0	31·0	43·1	6·17	0·82	2·08
Hull	146347	40·3	131	77	56·0	32·0	43·4	6·33	0·08	0·20
Sunderland ...	114575	41·4	95	71	59·0	35·0	45·7	7·61	0·00	0·00
Newcastle-on-Tyne	146948	27·4	121	71	...	...	...	...	...	...
Edinburgh	226075	53·9	141	93	54·2	29·7	43·4	6·33	0·16	0·41
Glasgow	578158	95·8	387	284	50·7	33·0	44·1	6·73	0·17	0·43
Dublin	314666	31·3	230	192	60·0	28·0	46·1	7·84	0·17	0·43
Total of 23 Towns in United Kingdom	8502896	38·6	6282	4420	61·0	26·2	43·8	6·58	0·24	0·61

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·52 in. The lowest reading was 29·39 in. on Thursday mid-day, and the highest 29·70 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACT OF A

CLINICAL LECTURE

ON THE DIAGNOSIS OF TUMOURS OF THE GROIN.

Given in University College Hospital, February 17, 1879.

By CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery in University College.

I PROPOSE to review to-day the several cases of tumour of the groin which have been in my wards recently, specially with the view of pointing out those details which are most useful in forming a diagnosis. I need hardly say that, without a pretty complete diagnosis, treatment will be not only useless but harmful. I employ the term "groin" in its largest sense, so as to include scrotal tumours, because a tumour may be at one time inguinal and at another scrotal, and because we thus have some of the commonest difficulties of surgical diagnosis brought before us.

The diagnosis of a tumour of the groin will depend mainly upon whether it is inguinal or femoral—whether it is above or below Poupart's ligament, which is sometimes obscured by the overlapping of the tumour. This is particularly the case in a large femoral hernia where the tumour turns up over Poupart's ligament and closely resembles an inguinal hernia. The diagnosis is best made by carefully examining the ligament itself, which can usually be made out with ease; or by putting the finger upon or into the external abdominal ring, which even in the female can be readily made out. In health, nothing should be in the inguinal canal but the spermatic cord in the male, or the round ligament in the female—which latter is seldom to be defined.

In all cases of inguinal tumour in the male the presence of the testicle of the corresponding side in the scrotum should be at once ascertained.

INGUINAL TUMOURS.

A protrusion noticed on coughing at the internal abdominal ring or in the inguinal canal is probably a *hernia*, if the testicle is in the scrotum. If large enough to lodge in the inguinal canal and form an elongated tumour, the protrusion is a *bubonocele*, and will be readily returned with a gurgle when the patient lies down if it is intestine; or if omentum, will give the characteristic knotty feeling.

An elongated elastic tumour lodged in the inguinal canal, which has an impulse on the patient coughing and may be pushed up without being thoroughly reduced, is probably a *hydrocele of the cord*. If large enough to protrude out of the ring it will be found closely connected with the spermatic cord and will give a dull note on percussion. With care it may be demonstrated to be translucent.

An elastic swelling immediately above the outer part of Poupart's ligament, and having an impulse on coughing, but dull on percussion and irreducible, is probably an *iliac abscess*. The diagnosis will be rendered easy if the swelling is large enough to fluctuate.

Enlargement of the lymphatic glands, which lie above or upon Poupart's ligament, is a common result of a sore on the penis or scrotum, but may arise from constitutional causes, in which case the glands are more apt to form one large mass. Induration connected with a venereal sore is an evidence of its infecting character; but inflammation and suppuration show the local character of the sore, or may be dependent upon urethral irritation only.

Diagnosis of Inguinal Tumours.

HERNIA.	HYDROCELE OF CORD.	ILIAC ABSCESS.	LYMPHADENOMA.	TESTIS.
Impulse on coughing; Reducible with gurgle; Clear on percussion if intestine; Feels like intestine, or knotty, if omentum.	Impulse on coughing; Apparently reducible; Dull on percussion; Elastic feel, like small elongated bag of fluid.	Impulse on coughing; Non-reducible; Dull on percussion; Elastic, and possibly fluctuating.	No impulse on coughing; Non-reducible; Dull on percussion; Hard, well-defined, and not tender unless inflamed.	No impulse on coughing; Non-reducible; Dull on percussion; Obscurely elastic, and characteristically painful.

Diagnosis of Femoral Tumours.

HERNIA.	PSOAS ABSCESS.	FATTY TUMOUR.	CYST IN CANAL, OR LYMPHADENOMA.
Impulse on coughing;	Impulse on coughing;	No impulse;	No impulse;
Reducible with gurgle;	Irreducible;	Irreducible;	Irreducible;
Clear on percussion if intestinal;	Dull on percussion;	Dull;	Too small for percussion;
Feels like intestine, or knotty, if omentum.	Elastic or fluctuating.	Lobulated.	Hard and ill-defined.

FEMORAL TUMOURS.

A large femoral tumour is either a hernia, a psoas abscess, or a fatty tumour; a small tumour may in addition be a gland or a femoral cyst.

A tumour with a distinct impulse on coughing appearing below the inner end of Poupart's ligament, and reducible with or without a gurgle, is probably a *hernia*. A larger tumour, turning up over Poupart's ligament, clear on percussion, and giving the feel of intestines, which when drawn down can be reduced beneath Poupart's ligament, is also a femoral hernia.

A tumour with a distinct impulse on coughing appearing beneath the outer part of Poupart's ligament, dull on percussion, elastic, and possibly fluctuating, is a *psoas abscess*. This tumour may, if large enough, be prolonged beneath the femoral vessels, and form a large fluctuating tumour on the inner side of the thigh, and may be apparently reducible, when the patient lies down, by the fluid it contains being forced upwards by pressure, but there will be no intestinal gurgle.

A lobulated tumour of the groin, dull on percussion, with no impulse, and irreducible, is probably a *fatty tumour*.

A small obscure tumour, deeply placed beneath the inner end of Poupart's ligament, with no impulse on coughing, may be a *lymphatic gland* or a *cyst in the femoral canal*. The only importance of either is that a small strangulated femoral hernia may be mistaken for it; but if there are general symptoms of strangulation an incision will at once clear up the case.

Enlarged femoral lymphatic glands depend upon some irritation of the skin of the foot or leg, commonly upon some trifling graze of the heel which is overlooked. A general enlargement of the femoral lymphatic glands may be a part of general *lymphatic disease* from constitutional causes.

Tumours of the scrotum are conveniently divided into reducible and irreducible.

Reducible Scrotal Tumours.

Hernia.	Congenital Hydrocele.	Varicocele.
Impulse on coughing;	No impulse unless combined with hernia;	Impulse on coughing when large;
Percussion clear if intestinal, dull if omental;	Percussion dull;	Percussion dull;
Ring and inguinal canal occupied, spermatic cord obscured;	Ring and canal clear;	Ring occupied by enlarged spermatic cord;
Intestine to be felt, and returned with gurgle, and remains up till effort is made;	Fluid to be felt, and readily returned when patient lies down, and reappears slowly when he stands up;	Feels like a bag of worms when small, but like intestine when large; can be reduced by pressure, and fills again while pressure made on ring;
Opaque;	Translucent;	Opaque;
Any age.	Childhood.	Young adult, and on left side.

Irreducible Scrotal Tumours.

Hernia.	Hydrocele.	Hæmatocele.	Sarcocele.
Sausage-shape;	Pyriform;	Globular;	Irregular;
Intestine clear, omentum dull;	Dull on percussion;	Dull on percussion;	Dull on percussion;
Intestinal or knotty;	Elastic or fluctuating;	Tense or doughy;	More or less induration;
Opaque;	Translucent;	Opaque;	Opaque;
Sudden.	Chronic.	Sudden.	Chronic.

Hernia.

A tumour occurring in one of the common situations for hernial protrusion, having an impulse on coughing, and being reducible with a gurgle when the patient lies down, is a *reducible hernia*, producing no general symptoms except perhaps a dragging feeling. If dull on percussion, and having a knotty or doughy feeling, and returning without a gurgle, the contents of the sac are in great part omental.

A hernial tumour of large size, tense and tympanitic, or dull on percussion and knotty, which resists moderate attempts at reduction, but is not painful, is an *irreducible hernia*, which may or may not yield to treatment.

A similar tumour of long standing, combined with obstinate constipation, but without vomiting or rise of temperature, is probably an *incarcerated hernia*, in which the bowel is obstructed.

A small recent hernial protrusion, or a larger old hernia recently increased in size by some exertion, which is tense and painful, the pain radiating over the abdomen, and there being some rise in temperature, is probably a *strangulated hernia*. The diagnosis will be confirmed if persistent sickness is present, the vomit being offensive and eventually stercoraceous; if there is no passage of fæces or even flatus through the bowels, which are becoming distended; and if the patient have the drawn features constituting the *facies Hippocratica*.

In the case of a man who has a few hours before received an injury of the scrotum, leaving a painful condition of the parts, it is possible that strangulated hernia may be confounded with hæmatocele or orchitis.

Strangulated Hernia.	Hæmatocele.	Orchitis.
Suddenly produced or, if present before strangulated thus;	Suddenly produced by some external violence;	Developed a few hours after a blow or following gonorrhœa;
Pain in groin and about abdomen, with considerable constitutional depression and anxiety of face;	Pain in scrotum and constitutional disturbance, slight after the first few minutes;	Pain in scrotum and along the cord to the loins; feverish disturbance of system;
Tumour tense, and giving the sensation of intestine when manipulated; skin normal;	Tumour tense and heavy, globular in shape, and not translucent; skin often bruised;	Tumour excessively tender to the touch; cord thickened; skin reddened;
Impulse on coughing to be felt along the groin, in which there is more fulness than usual, but ceases abruptly at the point of strangulation;	No impulse in groin, which is perfectly normal;	No impulse on coughing;
Percussion over tumour gives a clear sound unless the protrusion is omental;	Percussion gives a dull note;	Percussion gives a dull note;
Vomiting probably present, continuous, and eventually stercoraceous.	Vomiting immediately following the accident, but not continued.	Nausea and faintness, but seldom vomiting.

Dr. Bulkley on Itch.—In a clinical lecture on itch, Dr. Bulkley, after describing the appearances of the cuniculi or furrows in itch, and the localities where these are usually found, observes:—When the furrow is ascertained, the diagnosis is certain; but another sign almost as sure in males is papules or pustules on the penis, such as are met with in no other affection. They are sometimes met with in connexion with a furrow, and sometimes not, and of course must be distinguished from a papular syphiloderm. In females the lesions may be principally located about the breasts, and Hardy states that in what appears to be eczema about the breasts in unmarried females he always suspects scabies. In children they are generally found upon the soft parts of the foot, where the furrows may sometimes be seen beautifully perfect. We can never be sure of a complete cure of the disease as long as a single furrow remains. The patient should first be placed in a warm bath for half an hour, when he should be well rubbed with the coarsest soap that can be procured, and again immersed. He should then rub in the ointment ordered, rubbing it in diligently, especially about the fingers and toes, so as to bring it into immediate contact with all the furrows. The character of the ointment employed depends on circumstances. In infants sulphur sometimes cannot be used at all, and then a very excellent substitute will be found in liquid storax, officinally known as styrax, one to three drachms to the ounce of simple cerate. In females the following is a very satisfactory combination:—Styracis ʒj. ad ʒij., ung. sulph. ʒiij. ad. ʒiv., cerati ʒj. In males the sulphur ointment may very frequently be used in its full strength, diluting it in some cases by one-half, and adding a little styrax or balsam of Peru. Care should be taken that it is well worked into the wrists, fingers, and penis.

ORIGINAL COMMUNICATIONS.

ON COLOUR-SIGHT AND COLOUR-BLINDNESS.(a)

By J. R. WOLFE, M.D., F.R.C.S.E.,
Surgeon to the Glasgow Ophthalmic Institution, Lecturer on Ophthalmic Surgery in Anderson's College.

(*Concluded from page 375.*)

COLOUR-BLINDNESS may be either—

1st. Total inability to discern colours (Achromotopsy);

2nd. False vision of colours (Chromato-pseudopsis); or

3rd. Difficult or blunted perception of colours, (Dyschromatopsy).

The first kind is very rare. Professor Wilson records a case of a house-painter, in whom the perception of black and white was all that existed to represent the colour-sense.

In all other subjects of chromato-pseudopsis there is either an inability to discern a single colour, such as red, green, or violet, or there is an inability to discern the difference between two colours, such as red and green. Blindness to violet and its varieties is less frequent. In my examinations I have only met with one case where neither blue nor violet could be seen in the spectrum. Cases of bluntness of perception, on the other hand, are of comparatively frequent occurrence. It is only right, therefore, that the public should be impressed with the fact, that, taking the *ensemble* of all the varieties, colour-blindness is of more common occurrence than is generally supposed. Indeed, when I commenced to investigate the subject, I was astonished to find the number of cases which obtruded themselves, as it were, upon my notice.

When I asked a friend of mine (a solicitor) to introduce me to the railway company to obtain information with regard to railway signals, he informed me that he himself was colour-blind. I had met him frequently in town, and in the country on fishing excursions and when collecting heather, without ever suspecting such a defect. On examination, I find his sight normal. Looking into the spectroscope, he sees only blue; the rest looks to him like a glare of fire when seen through transparent gauze. He can name black, blue, white, and yellow, but no other colour. His eyes get sore when he looks upon a bright-coloured object, such as a carpet. Pale green he calls white; green he can only guess at; dark green, he cannot say what it is, but if pressed he would say it is black. Here, therefore, is a case of inability to discern both green and red—he is green and red blind. He has a brother who was engaged in a wholesale warehouse and was put into the silk department, where he committed such blunders in regard to colours that he had to leave the trade, and he is now head engineer of an Atlantic line of steamers.

When I asked Dr. Cumming and Dr. Pickering to undertake the examination of the schools, each of these gentlemen mentioned a case of colour-blindness among their friends. Dr. Pickering introduced a gentleman, Mr. A., a manufacturing chemist of twenty years' standing. His vision is perfect, and he is never fatigued in reading. He knows that grass is green, having been told so from infancy, otherwise he would take it to be yellow, about which colour he never makes any mistake. He takes red berries to be green, but a shade lighter than the green leaf. In the spectroscope he sees blue and orange; he knows that there is something else, but cannot venture upon any name. He has a good ear for music—so acute, indeed, that he can detect the slightest sharpness or flatness of a note. He was the conductor of a choir. Crimson is nothing at all to him—grey is the best term he can give for it; scarlet, orange, and salmon colour he is not sure about; lemon and yellow he is quite confident about; light and dark green he knows nothing of, and can only say that the one is brighter than the other; light blue and indigo he is certain about; violet and purple are similar to blue and indigo respectively—one is a repetition of the other. Gaslight improves the red, but makes no difference to the other colours.

For chemical tests he has to rely entirely upon other parties. His grandfather and maternal uncle were colour-blind.

Dr. Cumming introduced Mr. B., a merchant in town, who is remarkably clever in the appreciation of designs; in the blending of colours he generally succeeds fairly, but sometimes he makes ridiculous mistakes. He calls pale green, Shetland grey; bright green, drab or fawn; dark green, purple. The difference between certain shades of fawn, green, and red, is to him no contrast at all, but he seems to know them, in his warehouse, in a kind of catalogue way. The crimson, scarlet, and orange, he thinks to be red, but is not sure; salmon, lemon, and yellow, he calls yellow; light and dark green you may call drab or anything you like; he knows all the blues. Therefore, he is totally green-blind and deficient in red: for instance, a piece of scarlet cloth thrown upon a bright green ground is not readily picked up. His vision with regard to purple is similar to that of the preceding case—i.e., he sees no difference whatever between blue and violet, nor between indigo and purple or ultra-violet, but mere repetitions. He is hypermetropic (H. 14 left, and 10 right); hearing of left ear is rather deficient. There is also an eye-history in his family.

The Treasurer of the Philosophical Society introduced to me a gentleman, Mr. D., who is a shawl manufacturer. On examining him I find that he calls pale green, dirty white; green, yellow, and orange are all to him yellow of varying brightness. He knows scarlet, but dark green is to him the same as red. The perception of blue and violet is similar to that in the two preceding cases. Therefore, he is totally green-blind. In the spectrum he sees all the colours except green, which is similar to red, but of a lighter shade, as if some yellow had been mixed with it. Crimson he calls green; scarlet, red; orange, light red; salmon colour he considers to be light green; the vision of orange, yellow, and blue is correct; ultra-violet has the same appearance as indigo. He is an only son. His mother, who is seventy, has excellent sight, is not near-sighted, and has never required spectacles for reading; *her brother* was colour-blind.

I have entered into details of these four cases, because they are typical, representing the forms of the defect which are usually met with, and because the subjects, being gentlemen of intelligence, were, in addition to the objective tests, able to give accurate account of their subjective sensations.

Cause.—I have already mentioned that some cases are caused by disease; but generally it is congenital, an inheritance transmitted from maternal relations. It is most probably caused by the intermarriage of cousins or other near relations. Hence, very likely, why Quakers furnish a large contingent of colour-blind. Dr. Wilson records six males in one family—uncles, nephews, and cousins—who were all markedly colour-blind, which defect had descended to them from their maternal uncle. They all belonged to the Society of Friends. One of them, a minister of that body, bought for his wife a bottle-green dress, and for himself a coat of bright scarlet, instead of the conventional drab of the Society.

When colour-blindness is caused by disease it may be cured, but when it is congenital it is incurable.

Seeing that the peculiarity of most colour-blind people is to mistake red for green, or to ignore a certain shade of red altogether, and to take green for yellow, the subject assumes a practical importance in connexion with railway-signals, and lights in sailing-vessels, steamers, and lighthouses. The significance of railway-signals is as follows:—At night a red light signifies "danger"; a green light, "caution" or "not sure"; and a white, "proceed." In the daytime red semaphores are used. When at a right angle to the post, the signal means "danger"; at forty-five degrees, "proceed cautiously"; and when folded in, "road clear." By the regulations of the Board of Trade, every sailing-vessel must, from sunset to sunrise, carry a green light on the right or starboard side, and a red light on the left or port side; and steamers must have, in addition, a white light at the mast-head. This last is visible for five miles, and the side lights for two and a half miles distance. The rule for meeting vessels is to keep red to red, and green to green. The colours indicate to the officer on duty the direction in which the ship is proceeding, and the relative position of both vessels. In lighthouses there are, generally, revolving and intermitting white lights, sometimes red ones, rarely green.

The practical bearing of this question, therefore, is that red and green being of necessity the very colours used in railways, sailing-vessels, and steamers, as well as in lighthouses, a colour-blind person may be the engineer of a train

(a) Read before the Glasgow Philosophical Society, March 5, 1879.

running a mile a minute, and the passengers' lives depend upon his clear perception of the difference between a red and a green light. He may mistake the danger signal red for grey or white, or when it appears black he may not see it at all; and he may take the green for the yellow or safety signal. Or he may be the pilot on a steamer, and cannot say whether the light directly ahead of him is red or green, and hence cannot steer so as to avoid a collision.

It is this aspect of the question to which Wilson directed his attention:—"Struck by the danger which attends the use of coloured signals on railways if any of the signalmen are colour-blind, and satisfied from published statistics of colour-blindness that it must present itself in the army of railway servants spread over Europe and America, I brought this aspect of the subject before the Scottish Society of Arts, and I am happy to say that the publication of my paper has induced the Great Northern Railway Company to require that in future all their officials shall be tested as to their freedom from colour-blindness before they are admitted."

It may well be asked, How is it possible for a colour-blind engine-driver, for instance, to perform his duty for any length of time without exposing his deficiency? But the explanation given by Holmgren is simple when we remember that a colour-blind person may come to distinguish between red, green, and white lanterns or flags, and even learn to call them by their right names, whilst all the time it is not colour which he sees, but he differentiates by the degree of intensity of light. The green is to him, as also to the normal eye, the deepest and darkest, and red the most brilliant. As to the lanterns, the red-blind always recognises the red light by its being the darker than the green, and the yellow by its being clearer and more brilliant. The green-blind distinguishes also the red, which he finds more brilliant than the green. In short, the colour-blind person supplements his defective vision of colours by all secondary aids. He trains himself to notice differences which escape most other eyes; these differences serve him in lieu of colour. That is the reason why daily collisions do not occur on railways and at sea on account of colour-blind officials. But if these circumstances lessen the danger, they do not remove the liability to disaster. When we keep the broad facts before us, that the colour-blind man cannot distinguish between red and green, all his interpretation of signals rests upon the intensity of light; he knows light only by its quantity, and has no notion of quality. Now, if it is a matter of calculation and not of perception, it is evident that any objective or subjective cause may disturb and upset all his calculations. A tarnished signal, an ill-trimmed wick, the colouring matter of the glass, its thickness, or a little moisture, water, or snow adhering to the glass, will render the light less luminous; and a lantern illuminates differently in clear and foggy weather. Subjectively, the nervous apparatus of the eye may, like all other parts of the system, vary in its sensitiveness; the same light is brighter to a healthy eye in repose than to an eye fatigued and weakened. Every modification of the intensity of light being for the colour-blind a change in colour, little dependence can be placed upon his recognition of signals. No one would entrust his life to an engine-driver who could only distinguish signals by the difference in the intensity of the light—to whom a feeble light would indicate danger; a medium, caution; and a strong one, safety; and yet these are just the conditions under which every colour-blind engineer has to perform his duty. Should he rely upon his neighbour, there is the possibility of his neighbour being either colour-blind or blunt of colour-perception. Besides, a great many are unconscious of their defect. Professor Holmgren reports that a large number of men, far from being convinced of their defects even after repeated examinations, gave all sorts of excuses for mistakes; they all insisted that they had excellent sight, and had never experienced the slightest difficulty in distinguishing signals, and had never made the slightest mistake. What is required, however, for the safety of the public is a conductor who can pick up colours instantaneously, without measuring degrees of luminosity, or relying upon adventitious aids. The fact is indisputable that railway accidents have occurred from inability to discern the colour of signals. Dr. Rumberg has also classified the reports of some marine accidents from 1859 to 1866; they were 2408 in number. Of these, 1562 were due to want of skill or carelessness of the ship's *personnel* or to accidents impossible to prevent; 215 to errors of the pilot or captain; 537 to want of observation or proper interpretation of the rules of the way; 94 to undetermined causes.

Under the last three heads, in the large number of 846, there is little doubt that some are attributable to colour-blindness, especially when we recollect the effect of fog on the colour of lights.

Test.—From the preceding remarks it will be evident that all examinations based on the naming of colours are no tests at all: for a person may be deficient in his colour vocabulary, and yet have an acute perception of colour; whilst another may have learnt to attach the proper names to certain colours which he does not see, but of which he judges by the brightness of luminosity. Hence also the reading of Snellen's coloured test-types and Stilling's red types on green ground, etc., can prove nothing in regard to colour-perception.

The test now generally considered the *experimentum crucis* is that orginally proposed by Wilson, elaborated by Holmgren. It consists in matching coloured skein worsted. You show a certain colour, which the person under examination is required to match. It is usual to begin with green and its shades, then go on to yellow, blue, and red.

Dr. Stilling is the only writer who does not think this test quite reliable. I have come to the same conclusion after careful trial. I have found that in some undoubted cases of colour-blindness the colours are easily matched. To render this test of any value at all, the colours should be matched when seen at a distance. After having tested a large number in the usual way, I had to abandon it, and resorted to examination in the following manner:—First, the person looked through the spectroscope, and was then asked to pick out from a heap of coloured worsteds the exact colours he saw in it; next he was asked to match colours held up, one after another, at a distance of six feet from him. I have no hesitation in saying that this test is perfectly reliable. Goethe said, "You cannot reason for any length of time with an intelligent colour-blind man on colours without running the risk of getting crazy"; but the examination conducted in the manner just indicated is sometimes highly amusing.

Statistics.

Total number examined	2,134
Colour-blind	28, or 1·31 per cent.
Blunt of perception	148, or 6·70 „
Examined with spectroscope, and at a distance of six feet from the colour to be matched	398
Colour-blind	12, or 3 per cent.

The subjects examined were all boys, for females are generally considered to be rarely deficient in colour-perception. Whether it is really the case, or whether they are more apt to conceal the defect, is uncertain. We have, however, found in the case of one colour-blind boy that his sister is also colour-blind.

Comparative Statistics.

Professor Wilson, Edinburgh	5·6 per cent.
Dr. Stilling, Cassels	5·0 „
Professor Donders, Utrecht	6·6 „
Dr. Magnus, Breslau	3·27 „
Dr. Cohn, Breslau	3·6 „
Professor Holmgren, Sweden	3·25 „
Dr. Jeffries, Boston	5·0 „
Dr. Freris, France	8·18 „
Dr. Favre, Lyons	9·33 „
Glasgow Commission	3·0 „

From these statistics(b) we are entitled to assume that of all *employés* on railways and at sea 3 per cent. are colour-blind, and 6·5 per cent. can perceive colours with difficulty; thus 9·5 per cent. ply their occupations amidst conditions approaching to uncoloured signals.

It is remarkable that, whilst Wilson's labours have been productive of good results in nearly all continental countries—in France, Germany, Sweden, Norway, Italy, Austria, yea, even in Russia, where there is a Government ordinance to guard against the admission of colour-blind railway *employés* and sailors into the service—no good has accrued so

(b) The difference in the results obtained by the various writers is easily explained when we bear in mind that neither of them takes cognisance of dyschromatopsy. Some of them take bluntness of perception for colour-blindness, whilst others disregard it altogether.

far as this country is concerned. No legislative enactment makes provision against the occurrence of such accidents.

On inquiry at the Caledonian Railway office, I find that every applicant for a situation on that line gets a printed certificate to fill up as to his health, etc. One of the questions is, whether the applicant has good sight and is capable of distinguishing colours. This certificate may be signed by any medical practitioner. This I consider a mere shirking of the responsibility. The companies do not consider themselves the guardians of the public; if the smash comes, they are not the responsible parties—there is the certificate signed by Dr. So-and-so! This may be quite well in a way; but it is not the principle on which life assurance companies conduct their business. They have their own medical referee, who is responsible to the company for every life he recommends.

On the North British system, the duty of examining the applicants is performed by the locomotive superintendent. It is conducted, as you may expect, by showing the applicant different coloured cloths and asking him to name them; he is then examined in gaslight, the idea apparently being that that is a more rigid test of the discernment of colours.

After what I have stated above, no criticism is required to show that this is worse than no examination at all, because it tends only to confirm colour-blind officials in the conceit that they are quite capable for their duty.

The best provision against disasters from the cause under consideration would be, of course, an Act of Parliament. This is not only the most efficacious means, but also the most easily attainable. In the meantime railway companies and shipowners should be made to see that, as guardians of the interests of the shareholders, the shirking of such responsibility does not tend to the promotion of that interest. I have no doubt that if due stress be laid upon the point relating to vision and colour-vision, medical practitioners generally will soon acquaint themselves with this subject. But meanwhile it would be the most direct way to have the whole staff of officials properly examined by one competent to conduct the examination; for it is evident that, to be of any value, it must be conducted by one who understands the whole subject.

In conclusion I would remark that it would be desirable to have hung up in schools diagrams of the spectral colours, and scales of various shades, to accustom the eyes of the young to them; for just as the ear may be trained to the perception of musical sounds, so a great deal may be done in the way of educating the eye in the appreciation of the finer shades of colour, although colour-blindness when congenital is incurable.

NOTES ON TWO CASES OF CHLOROFORM ADMINISTRATION,

WITH REGARD TO A COMMON CAUSE OF ACCIDENT THEREWITH.

By TOM BIRD.

A DEATH under chloroform recently published leads me to forward the notes of two cases of chloroform administration that have occurred in my practice. The first patient, a young married lady, had suffered from almost fatal syncope on one occasion, and very severe syncope on another, after the administration of nitrous oxide gas. The case was a Marion Sims' operation, and lasted twenty-eight minutes; a semi-anæsthetic state was almost immediately produced (under two minutes), the patient placed in position with the slightest possible movement, and the operation proceeded with. The pulse was fair from the commencement until almost the end of the operation, but the respiration was slow and shallow from the first. If I had not administered chloroform I should have called her state cataleptic. Beef-tea and brandy were administered, with the idea of meeting the syncope which from former history and present appearance seemed likely. When left under the care of the operator, the pulse was slow, feeble; the mental state one of semi-consciousness; the operation complained of. The syncope continued for six hours, when she was sick. I used only one drachm and a half of chloroform, and I find I have often required more for a twenty minutes' operation on children of from eight to ten years of age.

The second case was that of a child one month old; operation, hare-lip. I do not like giving an anæsthetic in these cases, and most certainly advise no one to do so. It is an operation of convenience, of no immediate hurry; there is no necessity on the surgeon's part for an anæsthetic, as, with two assistants, one hand of each can control the bleeding by pressure of finger and thumb on each half of the lip; the others to hold the child's head; the crying will then keep the trachea sufficiently clear of what blood may flow into the mouth. When the child was sufficiently anæsthetised, I withdrew the chloroform; the operation was proceeded with and nearly completed, the child struggling and only feebly crying, when respiration stopped and the deathly pallor immediately ensued. The child was inverted; a teaspoonful of blood ran from the mouth. I kept up artificial respiration (finding, to my annoyance, that the child had a flannel bandage on, of which I ought to have been informed, or informed myself), but as I could feel the heart beating strongly under my hand, felt no anxiety, as the bleeding from the incision had stopped, controlled by the pins, and I knew that the child was almost free from chloroform. Respiration being restored, a good cry confirmed the opinion, and allowed the operation to be completed. A few minims of chloroform were used with Junker's modification, as in the last case.

The points I wish to notice are with regard to the breathing. The heart cannot be affected except by the chloroform conveyed to it by the blood. If the patient breathe slowly (as in later stages of anæsthesia, even with the healthiest) or shallowly, much chloroform is taken up by the blood; the residual air is of greater quantity, and more strongly impregnated with chloroform vapour.

I feel confident many accidents happen from not keeping this point in view, as, for instance, when an administration is resumed, "more fresh chloroform is poured on the handkerchief (a wasteful method of administration, and dangerous in these cases), the patient gives a breath, and then pallor ensues," is nearly always the story.

I would suggest that no patient be left without one or two forcible and deep inspirations and expirations be made, the more especially if the chloroform be just removed because of the deep anæsthesia which is present.

CASE OF QUININE RASH.

By GEORGE THIN, M.D.

OF late years considerable attention has been given to forms of skin-irritation produced by drugs, and not the least interesting cases are those which have been recorded as following the administration of sulphate of quinine. I am induced to believe that additional evidence as to the effects produced by the latter agent is not yet superfluous, and I therefore offer for publication the following note, which was sent me some time ago by a surgeon of one of the metropolitan hospitals:—

"Some years ago," this gentleman writes me, "I was advised to take quinine as a simple tonic; and within a very few minutes of taking the first dose—only two grains—patches of urticaria came out on the arms, and thence spread over the whole body, the palms of the hands and the soles of the feet being alone unaffected. This acute attack lasted for about five hours, the temperature having risen during it to 104° Fahr. No subsequent evil resulted therefrom. The strangest part of the whole thing was that I had often taken quinine before—and I have taken it since—without any eruption being caused."

I believe that the chief value of cases like that recorded above is the evidence they afford of the direct action of quinine on the vascular system, and the clue which they perhaps afford to a rational explanation of the more common effects of the drug. It is certain that this action of quinine on the skin must be comparatively very rare. There is almost no medicinal agent more frequently prescribed, and yet these rashes are far from common. At one time I had extensive opportunities of observation in a malarial country, where the foreign residents were much in the habit of taking quinine systematically as a prophylactic, and I had often occasion to administer it in large doses in febrile attacks, but during a period of several years I did not once meet with a case of the eruption.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF DOUBLE PSOAS ABSCESS.

(Under the care of Mr. HEATH.)

PHŒBE B., aged twenty years, was admitted on January 23, 1879. She stated that for about eighteen months she had suffered from aching pain in the right leg and foot; that these parts had swollen very much, and that the swelling had extended up into the thigh. The leg afterwards became hard, and a soft lump appeared above and behind the knee. Under medical advice she bandaged the whole limb, and the swelling of the foot and leg and the lump behind the knee disappeared. About a month before admission a swelling appeared on the same side at the inner part of the thigh, extending half-way down to the knee. There seemed to be no history of spinal or other disease, and she had been hitherto able to do her work as a domestic servant. Her father died of consumption; the other members of her family were all healthy. When admitted there was a large tumour on the right side extending from about the fold of the groin to the middle of the thigh on its inner aspect. The swelling was elastic, tense, and smooth; fluctuation was easily made out, and as it could be followed into the abdomen there was little doubt that the case was one of psoas abscess. On examining the back no irregularity in the spines of the vertebræ could be made out beyond a very slightly increased prominence in the region of the lower dorsal spine. There was no particular tenderness in any part on percussion or movement. On the left side an obscure abdominal swelling could also be made out, situated in the iliac and lumbar regions. It was somewhat larger than the swelling on the right side, and was distinctly fluctuating. As patient had ceased to menstruate for some months, and there was no question as to pregnancy, the possibility of double ovarian disease was suggested. The situation and appearance of the left tumour was also not incompatible with its being connected with the kidney.

Patient's general health was fairly good and there were no indications of pulmonary mischief. Her temperature on admission was 99·8°.

January 24.—To-day, patient being under the influence of chloroform, Mr. Heath opened the right tumour antiseptically, below the groin. About forty-six ounces of thin pus escaped, and with this the abdominal swelling disappeared.

31st.—Patient has been troubled with occasional sickness and headache. There is now a tumour appearing below the left groin in the situation of a psoas abscess. The urine is quite free from pus. The wound in the right side is still antiseptic and discharges freely.

February 10.—To-day the swelling on the left side was aspirated just below Poupart's ligament, and a quantity of pus was taken away.

18th.—An opening was made with the knife and polypus-forceps on the left side at the seat of previous puncture, and a large quantity of pus was evacuated. The incision was made antiseptically. Patient's temperature is somewhat fluctuating; this morning it is 102°.

March 8.—The antiseptic dressing was discontinued to-day on the right side, and the wound there has nearly healed, the discharge coming almost entirely by way of the left wound. Patient sweats freely, and the temperature fluctuates; she is also considerably emaciated.

12th.—The antiseptic dressing on the left side has been discontinued. The discharge from the wound continues to be very profuse.

31st.—There has been no improvement in patient's condition. The discharge is abundant, the temperature fluctuates, and the sweats are frequent and severe.

April 8.—Patient is still in hospital. The hectic condition is well marked, and the progress of the case has presented no uncommon features. Its interest chiefly lies in the fact that on admission there was some doubt as to the nature of at least one of the abdominal swellings—a doubt which was, however, soon cleared up by observation and by the progress of the case.

RUPTURE OF EXTERNAL LATERAL LIGAMENT AND CAPSULE OF KNEE-JOINT.

(Under the care of Mr. HEATH.)

George R., aged thirty, a porter at Euston Station, was admitted on March 27. He had, while working on the platform, slipped between it and a train which was coming up. In some way he was knocked under the shelter of the platform, and his left knee was injured. When he was raised up he was unable to stand or otherwise use the left leg, and was brought at once to the hospital. When admitted, patient seemed to be a fairly healthy-looking man, and he stated that previous to the accident his limbs had been quite sound. The left leg could be bent inwards in the direction of the left thigh with undue ease. The external condyle of the femur and the popliteal groove could readily be felt. The tendon of the popliteus could not be distinguished, but that muscle was not able to produce its usual action on the tibia. The movements of flexion and extension of the knee-joint could be performed only very slowly. The joint was little swollen and presented externally no marks of violence, so that the mode by which such extensive injury to the capsule and ligaments was produced was not at all apparent.

The treatment adopted consisted in placing ice over the joint, and giving it absolute rest and support by fixing the limb on a back-splint. No acute inflammation ensued, but the patient still remains (April 8) under treatment as an in-patient.

LOCK HOSPITAL.

THE USE OF NITRATE OF PILOCARPIN (JABORANDI) IN THE TREATMENT OF SYPHILIS.

(By C. B. LOCKWOOD, M.R.C.S., House-Surgeon.)

IT has been observed that people who sweat well recover from syphilis more easily than those who, from habit or employment, seldom have their skin in an active condition. Doubtless an active condition of the other excretory organs tends to the same result. By keeping all the excretory organs in an active condition, Zittmann, I am led to believe, attains some success in the treatment of syphilis. Some patients, however, cannot bear the large doses of Zittmann's decoction, or the confinement entailed by the process. I therefore looked for some method by which to obtain the sweating. Nitrate of pilocarpin (jaborandi) suggested itself as attaining the desired end. Owing to the kindness of Mr. H. Cooper, I soon had an opportunity of trying it.

John S., aged eighteen, a fisherman, had been treated as an out-patient at the Lock Hospital since October, 1878. Owing to exposure his syphilis was aggravated; and when admitted in November, 1878, his body, head, and limbs were covered with small, dry, rupial crusts, which, coming off, left here and there deep reddish-brown discolorations. He had mucous patches on soft palate and tonsils; his gums were vascular and retracted. He had double iritis. For fifteen days (January 2 to 17) he was treated with bichloride of mercury and iodide of potassium, without improvement. Calomel vapour baths were next tried for thirteen days (January 17 to 30). As no improvement was seen, the calomel was reduced from fifteen grains to five grains, and one-sixth of a grain of nitrate of pilocarpin was given hypodermically every other day before the bath. Before this the baths had caused no sweating. Sweating was now so profuse that it ran off the patient on to the floor, continuing from 7 p.m. until 4 a.m., wetting his bed-clothes through and through. He at once began to improve, and on March 7, after about thirty-three days' treatment (fifteen baths), all the crusts had fallen off, the stains were fading, his throat was well, and the eyes were but slightly pink. He desired his discharge, and reports himself at the out-patient room, where he is being treated with half a grain of hyd. iodid. virid. every night. The stains are slowly fading.

In the foregoing case much mercury had been used. J. S., aged twenty-seven, has had, as far as I know, no mercury. He presented himself in the following condition:—Body, limbs, and face covered with a bad tubercular psoriasis; slight ulceration of both tonsils; remains of hard sore. February 17: One-sixth of a grain of nitrate of pilocarpin given hypodermically. Profuse sweating began in six minutes, and lasted three hours and a half. Pilocarpin was repeated from

February 18 to 20, then every other day until March 6, when the sore was well, and only fading stains remained where the rash had been, but his throat was not quite well. He considered himself nearly well, and in spite of remonstrance desired his discharge. He has not again presented himself as promised.

These cases are both incomplete, but the result has been so encouraging that I publish them in the hope that others may prosecute inquiries in the same direction. I have no doubt that in jaborandi we have a means by which certain cases of syphilis can be helped towards recovery.

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SATURDAY, APRIL 19, 1879.

THE SUPPOSED CASE OF PLAGUE AT ST. PETERSBURG.

At the end of our article entitled "Virchow on the Plague" (*Medical Times and Gazette*, March 15, page 287), we referred to the statement that Professor Botkin, of St. Petersburg, had mistaken a case of syphilis for a case of plague. Since then a lecture has been delivered at Berlin by Professor Lewin, of the Charité Hospital, on the case in question, and has been published in the *Berl. Klin. Wochenschrift* of March 24. Professor Lewin visited St. Petersburg specially to see the patient, and had every opportunity offered him for making a thorough examination of the latter. In detailing the results of his examination later on, we shall only allude to those points which are of positive interest, and our readers may assume that all organs which are not specially mentioned were found healthy at the time of Professor Lewin's visit. The patient, Prokoffjew, is a man of about fifty, and, according to a report published by Dr. Wassiljew, in the *Petersburgher Med. Wochenschrift*, March 22, was admitted into hospital on February 25, with the following symptoms:—A few small scattered petechiæ on the trunk, arms, and (to a slight extent) legs; two or three vesicles on the abdomen; slight icteric tint of the conjunctivæ; slight swelling of the axillary glands; the inguinal, on the contrary, much inflamed, and on the left side suppurating. In addition, loud râles were heard in the lungs. The urine contained a trace of albumen, and the temperature was 39·2° Cent. The patient stated that he was taken ill on January 27, with shivering, headache, etc., and that the left inguinal glands were swollen the next day, and burst spontaneously on February 22. On February 24, after another shiver, the right inguinal glands inflamed, and an incision was made into them the next day, when the patient was admitted into Professor Botkin's clinic. Great relief ensued; in the night a critical sweat came on, and the next day the fever had subsided. The urine contained traces of albumen as late as February 28. On March 1, herpes appeared on the lips, the petechiæ gradually faded, and the patient steadily recovered. In consequence of the sudden onset of the illness, the fever which preceded the glandular swelling, the general prostration, the bronchial catarrh, the petechiæ, albuminous urine, and critical termination, Professor Botkin decided that he had to do with an infectious disease. He was strengthened in his diagnosis by the fact that other cases with typhoid symptoms and swelling of the lymphatic glands had occurred in the clinic.

Professor Lewin saw the patient on March 5. There was moderate swelling of the axillary glands on both sides, "such as is not uncommon in relatively healthy men." The inguinal glands on both sides were much more swollen, especially the superficial ones, and on the left side there was adhesion with the skin, but no scar. The scar of the incision on the right side was still visible. On the glans penis there were three small scars left, probably by soft chancres, from which the patient had suffered twice, the last time about three years ago. There was *no* symptom of constitutional syphilis; and no petechiæ nor any superficial scars of pustules could be detected. On the lips and alæ nasi there were some herpes vesicles. The physiognomy of the patient and his energy in moving and rising from bed showed no trace of his having gone through a severe illness.

Professor Lewin therefore sums up his impressions thus:—"That Prokoffjew was, at any rate, on the day of my examination, in a relatively normal condition and *in nowise exhibited the appearance of a convalescent from a severe infectious disease.*" The symptoms present when he saw him he explains as follows:—The glandular swelling is partly the result of permanent mechanical irritation of the lymphatics from hard muscular work, partly the result of previous infection from the soft chancres. The acute inflammation with suppuration he regards as "a simple inflammation of inguinal glands swollen from previous infection, and excited by a chill (*Erkältung*) and simultaneous bodily exertion—in fact, a rheumatic bubo."

The petechiæ and vesicles present when the patient was admitted he thinks of no moment, considering the frequency with which petechiæ occur in even "perfectly healthy and even robust individuals," and he agrees with Virchow that ecchymoses should be associated with them in the case of an infectious disease, if importance is to be assigned to them. On the whole, Professor Lewin concluded that in ordinary times Professor Botkin himself would have laid no stress on the symptoms in Prokoffjew's case, but that even he had suffered slightly from the perversion of judgment which the best men are liable to occasionally at periods of strain and anxiety.

Some other cases examined by Professor Lewin at St. Petersburg were, in his opinion, to be referred to the same category of catarrhal and rheumatic affections as that of Prokoffjew. He ends his lecture by saying that he does not believe that there is any danger of an importation of plague from St. Petersburg into Germany. We may add that the argument, *à fortiori*, may comfort us too.

THE POSITION OF CLASSICS IN A MEDICAL EDUCATION.

Recently we had occasion to call the attention of our readers to matters medical in Germany, and we then pointed out that one of the vexed questions of the day was the position which the classics were to occupy in the future of preliminary medical education. There is a great deal to be said both for and against the classics, and especially against a too exclusive restriction of preliminary education to them alone. Some may assert, as Professor Hueter and Professor Fick do in Germany, that their study is useless for medical students, as they afterwards forget all they knew of them; but we believe that the majority of those members of our profession who have had the advantages of really good and thorough classical teaching have never in after life regretted that they spent some of their best years in learning Greek and Latin among other "*ingenuas artes.*" In the *Contemporary Review* for March, 1879, appear two papers on the subject—the first by Professor J. S. Blackie, of Edinburgh, and the second by Professor Bonamy Price—on the place of Greek and Latin in modern education. These two writers take rather different views of the question. Professor Blackie, though he admits that "at least seven-tenths of the technical phraseology used in natural history, anatomy, and medicine are pure Greek," considers that with the present faulty system of teaching that language "it would be no appreciable loss to the highest culture of this country if two-thirds of those who now pass through a compulsory grammatical drill in two dead languages, entered the stage of actual life without the knowledge of a single Greek letter." As a means of education, therefore, the Edinburgh Professor of Greek has but a low opinion of his own special subject; on the other hand, the advocates of a classical education in Germany will find Professor Price on their side, for he is convinced "that for general excellence no other training can compete with the classical." Our space will not allow us to review his essay at length, and we must content ourselves with recommending its perusal to our readers, and with quoting a single passage from it:—"Where can a boy," he says, "be initiated into so many things, catch so many vistas, acquire, if not a profound, yet a most valuable and most fruitful familiarity with so many provinces of manly thought, as in the study of Homer, Æschylus and Sophocles, Aristotle and Plato, Herodotus and Thucydides, Aristophanes and Demosthenes? These men have been the founders of civilisation; they have hewn out the roads by which nations and individuals have travelled and travel still; the Greek type is the form of the thought of modern Europe: their writings on most vital points are fresh and living for us now."—(Page 809.)

To a practical-minded man it is evident that we have here that mixture of sense and nonsense which so often passes current at the present day as high philosophy. To put it plainly, what boy in his teens has mastered the writers referred to? We do not mean merely read morsels here and there, but fairly mastered one of them. For here it is plain that not the kind of knowledge which is got at most schools is meant, but something that comes only of mature years and ripened judgment. This kind of knowledge is only got by laborious self-study, with or without the aid of a master, and it is plain that to talk of it as being within the acquisition of a boy is sheer mockery. We should be the last to decry the value of classical learning—for it we have the highest esteem; but it is quite plain, if it is to hold its own as a means of training, that its advocates must be both measured and guarded in their claims. To us it always seems that one special advantage in a classical education is not only in the training itself, but in the mode of training. In these utilitarian days, when payment by results is the motto of educationists, and when youth of both sexes are trained up to win prizes like so many colts for the Derby, classics are likely to have a hard time of it. Classics won't cram like a few pet propositions in Euclid or a smattering of natural science. The knowledge which comes of them is a plant of slow growth. Hence, we believe, in a great measure originates the outcry against them: they do not readily yield themselves to the purpose of the crammers, and those who are reared without an acquaintance with classical learning are only too apt to decry that of which they are ignorant.

THE MICROSCOPE IN GYNÆCOLOGICAL DIAGNOSIS.

Attention was called some time ago by Veit and Ruge to the value of the microscopical examination of small snippings from the vaginal and cervical portion of the cervix uteri, and of scrapings from the interior of the uterus, as a means of deciding for or against malignancy in a given case. The method has since been attacked by Professor Leopold, on the ground that "it is often impossible or, at any rate, hazardous to make an absolute diagnosis of cancer from the microscopical examination of small pieces of mucous membrane or deeper tissues, and in consequence merely of epithelial outgrowths having been discovered on the vaginal portion of the cervix." To this criticism Dr. Ruge has ably replied (*Berliner Klin. Wochenschrift*, No. 4, 1879). He first points out that we can only examine a *minute* portion of the largest tumour under the microscope; that from such sections we habitually draw conclusions with regard to all kinds of tumours; and that microscopists prefer a small to a large nodule in the case of any particular growth, because they can study its development and structure best in the former. Admitting that a microscopical examination of a prepared section is not in itself enough to make a diagnosis from, he shows that the other elements required are a knowledge of the place of origin of the given tumour, the history of the case, its clinical course, and an acquaintance with any anatomical changes which take place while it is under observation. Given these, Ruge affirms that, with few exceptions, a microscopist can make an accurate diagnosis of a growth. The piece to be examined must be about the size of a pea, and, if possible, wedge-shaped, and excision is always preferable to scraping (erasion) in removing it, because the exact spot from which it comes can be determined. By numerous examinations, Veit and Ruge have arrived at the conclusion (1) that the views generally held of the nature of erosions and follicular ulcerations of the cervix require great modification, these changes being really due to glandular outgrowths (*drüsige Wucherungen*), a drawing of which accompanies the paper. That (2) where the clinical diagnosis fails in certain cases of fissured cervix with epithelial outgrowths in the cervical canal, the microscope can decide with certainty for or against cancer. Ruge also states that pieces scraped from the interior of the uterus have proved the existence of cancer several times, "when there was still absolutely no certain clinical suspicion of it," and that Freund's total extirpation of the uterus was consequently performed, to the extreme benefit of the women. Lastly (3), they consider excision and "erasion" imperatively indicated "in doubtful cases where the clinical examination alone does not give information enough, and where it is a question not only of prognosis, but of the early performance of important operations which it may be impossible to execute later on when the physical signs are no longer doubtful." Four illustrations of benign and malignant alterations of the cervix and uterus materially assist the comprehension of Ruge's paper. The difficulty of excising portions of the

cervix for microscopic examination without assistance and without attracting the patient's attention too much has been overcome by an ingenious "excisor," invented by Dr. Ubbo Richter, of Emden, and which is described and figured in the *Berliner Klin. Wochenschrift* (No. 1, 1879, page 8). It is merely a scissors with peculiar shaped blades. Dr. Ruge has convinced himself that the pieces of tissue excised by it are well adapted to microscopic examination.

THE WEEK.

TOPICS OF THE DAY.

FOLLOWING close upon the recent unsatisfactory settlement of the City adulterated flour case, we have just heard of a case at Liverpool so similar that it at once raises the question whether these are only isolated instances, or whether there exists a systematic traffic with our ports in swindling and unwholesome compounds. The Deputy Town Clerk of Liverpool last week applied at the Police-court for an order to destroy over 1000 bags of rice-meal from Italy advertised for public sale. Samples of the meal had been subjected to analysis, and had been found to contain about 50 per cent. of ground marble or granite, so that it was fit for the use of neither man nor beast. An account of the case will be found in the letter of our Liverpool correspondent. The magistrates made an order for the destruction of the meal, and notice of appeal was given, but the Court refused to grant a case as no grounds existed. Subsequently application was made on behalf of the consignors to be allowed to convert the substance into manure, and as the bulk of it had already been mixed with town refuse, the application was acceded to, subject to the inspection of the health officers. It is to be hoped that a vigilant watch will be kept by all sanitary authorities upon dubious importations, so as to render this trade as unprofitable as possible, with a view to its speedy abolition.

From further accounts which have come to hand, it appears that the practice of keeping fowls in houses in Whitechapel for the neighbouring market is more extensive than was at first supposed. On serving the first owner with a compulsory order for the removal of the nuisance he pleaded for delay, but upon this being refused he threatened the officer with personal violence. The officials were, however, firm, and remained on the spot until the whole of the fowls had been removed—a process which occupied four persons an hour and a half to effect,—and it was then found that the number of birds kept on the premises had been much understated. An inspection of other houses in the same street resulted in the discovery of 300 fowls on one second floor, the atmosphere of the rooms and passages of this dwelling being most stifling. The proprietor, a foreigner, was ordered to abate the nuisance; and altogether the poultry trade of this unsavoury locality may be said to have suffered a rude interruption.

The officials of Lewes Civil Prison, formerly the Sussex County Prison, have been served with notice by the sanitary authorities to abate a nuisance caused by the sewage from that establishment overflowing into a public highway. When the prison was originally built, large cesspools were constructed to carry the sewage, but these have now become full, and burst the connecting-drain, which is above the level of the highway. There is no town drain within a distance of 600 yards, and a great difficulty has arisen as to the disposal of the sewage. It is considered useless to attempt to empty these receptacles, and the sanitary authorities forbid the construction of others on the premises. If it is decided to lay a main drain in that part of Lewes, which would allow of the prison connecting therewith, it remains to be seen whether the Government or the town should be called upon to bear the expense.

In a recent monthly report on the health of the parish of St. Marylebone, Dr. Whitmore, the Medical Officer of Health, points out the great inconvenience experienced by juries, witnesses, and others required to attend coroners' inquests in that parish. There are a mortuary and a post-mortem house, but they are nearly two miles apart, for which reason the latter is rarely or never used. This is a great anomaly, but, still worse, there is no appropriate building for holding a coroner's court. The system of holding inquests in public-houses is, he remarks, highly objectionable—a fact of which many other parishes have proved themselves fully conscious, by erecting buildings especially adapted for the purpose of holding inquests. Some years since the matter was fully gone into by the Sanitary Committee, and there was a general feeling that buildings should be erected in close proximity to each other, comprising a mortuary, post-mortem house, and coroner's court-house. A site peculiarly appropriate was selected, but, for certain reasons, could not be obtained. About 220 inquests are annually held in St. Marylebone, and this fact alone, Dr. Whitmore thinks, should suffice to show the necessity of having an appropriate place to hold them in. The report was received, and referred to the Sanitary Committee.

The ingenuity of publicans has placed another impediment in the way of the proper working of the Adulteration of Food and Drugs Act. At the recent quarter sessions held at Knutsford, the Chief Constable of Cheshire called attention to the difficulty which the police have in carrying out the Act. The publicans of the district have adopted the practice of posting notices, in not always very conspicuous positions, in their establishments, stating that their liquors are all mixed with water. When the police make purchases with a view to analysis, the publicans produce these notices; and, although the liquors are found to be largely adulterated, the magistrates have, in many cases, felt powerless to convict.

Professor Jäger, of Leipsic, has recently published a work, in which he maintains that an increased proportion of water in the tissues and humours of the body is one of the most essential conditions of liability to disease. To guard against disease, therefore, it is necessary to make the body yield as much water as possible through skin and lungs, and to avoid all that favours the accumulation of water. To this end he recommends the wearing of close-fitting woollen clothing throughout the year; all bodily movements which promote perspiration; on outbreak of disease the use of vapour or sweating-baths, of drinks that excite perspiration, and of foods that do the same; constant ventilation of sitting- and bed-rooms, so that the moisture of the air may not become great. Dr. Jäger asserts that the specific gravity of a living body is an accurate criterion for the strength of constitution of a man or a domestic animal—that is to say, for its capability of resistance to causes of disease, such as chills, infection, etc., and its power of work, bodily and mental. The specific gravity may be determined as follows:—Two chambers are made, which can be closed air-tight, and are connected with a tube. In one the man or animal is placed; the other is to be underground, and connected with the water-pipes. When the man enters, both chambers are filled with air; then, the door being closed air-tight, water is forced into the lower space, so that the air in this is forced into the upper. The larger the volume occupied by the man, the greater will be the compression of the air. This is to be read off on a mercury manometer connected with the system. If the apparatus have been previously gauged, the volume of the body may be read directly from the position of the mercury. In an ordinary balance the weight of the

body is then ascertained, and, by division, the specific gravity is arrived at.

In accordance with the arrangements previously announced, on Monday last the Prince and Princess of Wales visited Hunstanton for the purpose of opening the new Convalescent Home, which has been considerably enlarged. The ceremony can scarcely be said to have been imposing, but, in spite of all the drawbacks of this most unseasonable Easter, it was marked by a genuine heartiness which more than compensated for any want of grandeur. The male patients' ward was named the "Albert Edward" by the Prince at the request of Archdeacon Emery, and the Princess consented that the day-room for female convalescents should be called the "Alexandra." We mention these proceedings, not for the purpose of recording the doings of Royalty, but for the purpose of showing how much good may be done by the leading gentry of rural districts where their attention is directed to the alleviation of suffering amongst their poorer neighbours. It was principally in the capacity of leading residents of the district that the Prince and Princess attended upon this occasion, and hence the absence of ceremonial.

An inquest was held in Paddington, last week, before Dr. Hardwicke, on the body of a female, aged eighteen, who had died in St. Mary's Hospital. The mother of the deceased said she occupied rooms over stables at Colville-mews, Bayswater, belonging to a cab proprietor by whom her husband is employed. About a month ago the deceased complained of bad smells from the stables, and was taken with bad pains in her arms, followed by eruptions. She was admitted to St. Mary's Hospital, and remained there until her death. An infant child died just before the deceased went into hospital, from farcy and glanders, and she believed deceased died of the same complaint. The staircase leading to their rooms was in the stables, and near the stairs the horses were fed and watered. Dr. A. P. Brown, of St. Mary's Hospital, deposed that death resulted from blood-poisoning arising from farcy and glanders. Dr. Dudfield, Medical Officer of Health for Kensington parish, said he had inspected the premises, and found one horse suffering from farcy, and two from glanders. The place was in a very bad condition; and when the stable-door was shut all the foul air must go up into the rooms occupied by the family. No notice had been given, either to the Privy Council, the Metropolitan Board of Works, or the police, as required by the Contagious Diseases Act. The Coroner commented on the great neglect apparent in the case, and adjourned the inquiry for the production of further evidence.

From the Registrar-General's returns for the week ended 5th inst., it appears that 2610 births and 1958 deaths were registered during that period. Allowing for increase of population, the births exceeded by 53, and the deaths by 225, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two preceding weeks had been equal to 30·0 and 29·9 per 1000, further declined to 28·2. The deaths included 17 from small-pox, 43 from measles, 24 from scarlet fever, 10 from diphtheria, 78 from whooping-cough, 13 from different forms of fever, and 23 from diarrhœa.

THE HEALTH OF HACKNEY FOR THE PAST YEAR.

The Medical Officer of Health for the Hackney District, Dr. Tripe, in his annual report for the year 1878, congratulates the authorities on the satisfactory state of the public health of the district during the period under notice, as the annual death-rate was only 20·8 against 23·5 per 1000 inhabitants for all London. This low death-rate for the parish of Hackney was the more remarkable since the mortality from diarrhœa, whooping-cough, scarlet fever, and small-pox was large. The annual mortality from whooping-cough alone was (after due allowance has been made for increase of population) greater in the whole of London during the past year than in any year since the present system of registration was commenced, and also in Hackney except in 1875, when it was about the same. Diarrhœa, again, proved more fatal than in any year since the cholera epidemic of 1866; and deaths from fevers were rather numerous, and occurred chiefly amongst the better class of inhabitants in the district. The deaths from small-pox, viz., 86, were less than in the previous year, when they reached 179; and also less than in 1876, when they numbered 92, but were above the average (namely, 74) of the twelve years 1866-77. There were 858 deaths of children under one year old, giving 144 deaths for 1000 births, which is stated to be about the average for the parish of Hackney.

BROADMOOR CRIMINAL LUNATIC ASYLUM.

The report of the Superintendent of the Broadmoor Criminal Lunatic Asylum for the year 1877 calls for no special comment. Upon January 1, 1877, there were in the Asylum 389 men and 104 women. During the year 34 men and 9 women were admitted, 7 men and 5 women were discharged upon recovery, 24 men and 4 women were transferred to other asylums, and 12 men and 3 women died, thus leaving in the Asylum on the last day of the year 481 patients. The daily average number of patients resident during the year was 493, and the annual cost per head was £53 13s. 7d., as compared with £54 19s. 1d. in the preceding year. The general health of the inmates throughout the year was satisfactory, and the Asylum was entirely free from epidemic disease; the deaths during the period were 15 in number, 12 being of men and 3 of women. Calculated upon the basis of the average number resident, the rate of mortality was 3·10 for the men and 2·83 for the women, and 3·04 for both together. The average annual rate from the opening of the Asylum in 1863 to the end of 1877 has been 2·87. There were no serious accidents during the year under notice, no suicides, nor any instances of escape, and no form of mechanical restraint was used in any part of the building.

ROYAL INSTITUTION OF GREAT BRITAIN.

The following arrangements for the lectures after Easter were announced:—Ernst Pauer, Esq., three lectures on Schubert, Mendelssohn, and Schumann (with musical illustrations)—on Tuesdays, April 22 to May 6. Professor Dewar, M.A., F.R.S., five lectures on "Dissociation"—on Thursdays, April 24 to May 29. (No lecture on May 1, the day of the annual meeting.) H. H. Statham, Esq., four lectures "On the Leading Styles of Architecture Historically and Æsthetically considered"—on Saturdays, April 26 to May 17. Professor Karl Hillebrand, six lectures "On the Intellectual Movement of Germany from the Middle of the Last to the Middle of the Present Century"—on Tuesday, May 13; Mondays, May 19, 26, June 2; Tuesday, June 10; and Thursday, June 12. John Robert Seeley, Esq., M.A., Professor of Modern History, Cambridge, four lectures—on Tuesdays, May 20, 27, June 3; and on Thursday, June 5. Professor Henry Morley, three lectures on Swift—on Saturdays, May 24 to June 7. The Friday evening meetings will be resumed on April 25, at 8 p.m. Francis Galton, Esq., F.R.S., will give a discourse "On Generic Images," at 9 p.m. Succeeding discourses will probably be given by Professor J. G. McKendrick, Sir John Lubbock, Professor A. Cornu, W. H. Preece, Esq., Grant Allen, Esq., Professor Dewar, and Frederick J. Bramwell, Esq. To these meetings members and their friends only are admitted.

ANDERSON'S COLLEGE DISPENSARY, GLASGOW.

A DISPENSARY for the medical relief of the sick poor of Glasgow, connected with the medical school of Anderson's College, has just entered on the second year of its existence. From the first annual report, presented at a recent meeting of very influential professional and lay citizens, it is evident that there is ample scope for this addition to the public medical charities of Glasgow, more than 24,000 patients having availed themselves of the Dispensary during the first year of its operation. The institution had hitherto been supported by the liberality of a few gentlemen, but it is now proposed to place it on a broader basis, and to ask for public support in view of its extended field of usefulness. We were glad to observe that several of the non-medical speakers recognised the importance of such institutions, not only as affording direct relief to the sick poor, but also as excellent training-schools for the advanced medical students, in commencing, under proper supervision, the practical business of our profession.

ROYAL COLLEGE OF SURGEONS, ENGLAND.

AT the meeting of the Council of the Royal College of Surgeons, on the 10th inst., the Jacksonian Prize of the College was awarded to Mr. J. Priestley Smith for his essay on Glaucoma. Mr. Smith became Member of the College in 1871, and is Ophthalmic Surgeon to the Queen's Hospital, Birmingham. At the same meeting, Mr. Edward R. Bickerstaffe, F.R.C S. Edin., of Liverpool, was elected a Fellow of the English College, of which he became a Member in 1871. Mr. E. Bickerstaffe was elected to the Fellowship on the ground of distinction in Surgery, as were Mr. Oliver Pemberton and Sir Joseph Fayrer last year.

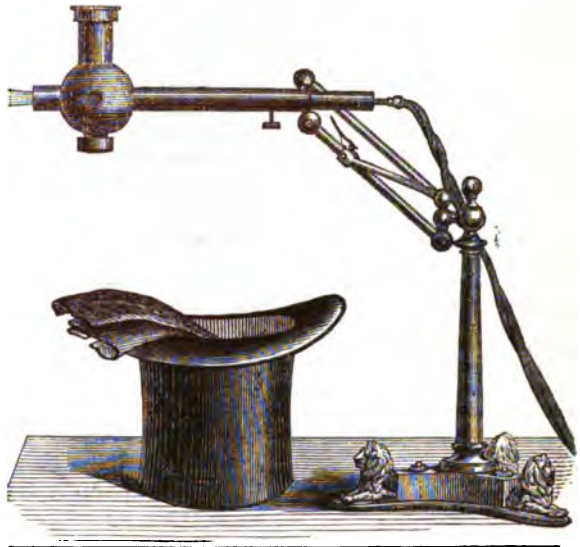
THE PROFESSIONAL VALUE OF THE ELECTRIC LIGHT.

A LARGE gathering of the profession assembled, on the afternoon of Thursday, March 13, in the theatre of the Royal United Service Association, to hear a lecture upon, and to witness the trial of an experiment for, facilitating surgical operations and examinations in dull weather or after dusk, by means of the Jablochkoff electric light, by Mr. Balmanno Squire.

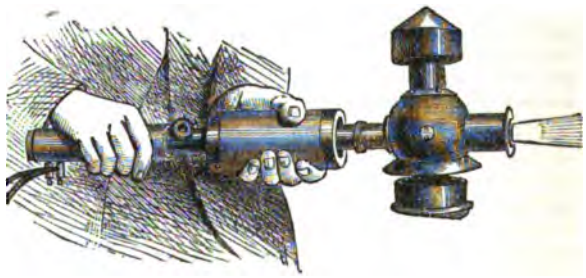
The lamps which the lecturer had devised, and the practical trial of which formed the subject of the demonstration, were two in number, and were respectively a hand-lamp for use in surgical operations, such as amputations, etc., and a bracket-lamp for use in ophthalmic, aural, laryngeal, dental, endoscopic, vaginal, and rectal examinations and operations.

In explaining the construction of the hand-lantern, Mr. Squire showed it to be extremely portable, and, being accommodated with a long handle, the person holding it was thus enabled to keep himself out of the way of the operator, while since the dimensions of the lantern itself were remarkably small, and as there was no machinery or apparatus of any kind underneath it, it was possible to bring the light very close to the person of the subject undergoing the operation. The hand-lantern exhibited was so contrived as to throw a disc of the light, eighteen inches in diameter, at a distance of two feet; but by means of a short draw-tube the area of this disc could be enlarged or diminished to any required extent. The lantern would throw a disc of the full power of the electric light, or by means of caps fitted with ground glass or with opal glass of varying thickness the brilliancy of the light could be toned down to any gradation of softness. All of these modifications of the light were demonstrated, and the hand-lantern being attached to long wires for the purpose, it was carried about in full action amongst the audience by an assistant, in order to afford the opportunity of a close inspection of it.

The bracket-lantern differed in no respect in general appearance from the gas bracket-lantern which has now for so long been in common use by aurists and laryngoscopists, excepting only that it was much smaller and somewhat neater in shape.



The mechanical construction of the hand-lamp—that of the bracket-lamp being precisely similar—was very simple. The lantern portion consists of a light metal globe, four inches in diameter, in the centre of which shines the electric light. As this globe is liable to get hot, ventilation is obtained by a short chimney, provided with an overlapping hood, the short tube for the entry of the air at the bottom of the globe being similarly guarded, so as to prevent an escape of light from any portion of the lantern, except by the short front tube, on which are fitted, when desired, the various caps for moderating the intensity or diminishing the area of the light as already described.



The light is obtained by an ordinary Jablochkoff candle or taper, which is about nine inches long by three-eighths of an inch wide, and which passes along the centre of the narrow tubular handle; while, to prevent its burning down into the handle of the apparatus, there is a rack and pinion adjustment for pushing the candle forward a little from time to time, so as to keep its illuminating extremity in the centre of the globe.

The candle itself is held in a socket, which forms the front end of an inner cylinder, which latter works forwards within the outer cylinder of the tubular handle, by means of the rack and pinion movement, just like the tube of a microscope. The inner cylinder contains two insulated copper wires, which pass back respectively from the two jaws of the small spring candle-clip or socket, and are brought out into two connecting screws or clamps which are attached to the back end of the inner cylinder at its lower side. These two clamps pierce the outer cylinder, and travel forwards (as the inner cylinder is screwed onwards) through a slit or longitudinal aperture cut for the required distance in the lower side of the outer cylinder.

At the side of the lantern is a minute window of very dark blue glass, through which the person holding the lamp, may ascertain the exact position of the burning candle-end from time to time. This window is provided with a minute hinged

metal shutter. To ascertain the position of the candle-point it is not necessary that the assistant should stoop his head down to look, since by merely placing his hand opposite the window the direction in which the dark blue ray is thrown on the hand (forwards or backwards, as the case may be) indicates with great accuracy the exact position of the candle-point, and tells him whether the screw requires moving or not.

The Jablochkoff candle—the cost of which is sixpence—burns for over an hour and a half, or rather for nearly two hours, and as it only burns down half an inch in five minutes, the adjustment does not require touching oftener than at that interval. Both of the lamps shown were lit up at the beginning of the lecture, and continued to shine throughout the whole of the lecture with surpassing brilliancy and steadiness, the assistant only occasionally touching the adjustments.

The construction of the bracket-lamp is in every respect the same as that of the hand-lamp, only that it is not provided with the two guards for the hands which are added to the hand-lamp, since, after the hand-lamp has been alight for some time, the handle is apt to become inconveniently hot to hold. In order to demonstrate how easy and simple a matter it was to prepare the lamp for use, the process of doing so was shown from the beginning. The inner cylinder was pulled out and the candle was stuck in its socket. The cylinder was pushed in again, and the two connecting wires were attached by a turn of the screws, whereupon the lamp shone forth—the whole process occupying less than half a minute.

The hand-lantern was constructed from Mr. Squire's designs by Mr. Fred Weiss, jun., of the firm of Weiss and Son, of the Strand. The bracket-lantern similarly was constructed by Mr. Mayer, of the firm of Mayer and Meltzer, of Great Portland-street.

The practical availability of his electric bracket-lamp was demonstrated by Mr. Squire, who examined Mr. Weiss's larynx and tympanum by means of it, a ground glass cap being used on the lantern for this experiment. Mr. Squire pointed out the advantages of such a light for ophthalmic practice, in which case an opal glass cap of small aperture is used, giving a small ray of mild but perfectly white light, while with the ground glass cap the lamp was admirably adapted for the use of aurists, laryngoscopists, dentists, gynæcologists, endoscopists, and those who practised in diseases of the rectum. Laryngoscopists in particular—and he believed the same remark applied to aurists—found that a London ground floor, whether at home in their consulting-rooms, or at a hospital in the out-patient department, presented such rare opportunities of sufficient sunlight that they were in the habit of working entirely and invariably by gas-illumination, so that many of them would probably be scarcely able to recognise the appearances that were familiar to them by the yellow illumination of gaslight if they were called upon to examine the same conditions by means of white light. This he regarded as a grave disadvantage, since, as was well known, the natural appearances such as are presented under illumination by white light are, when viewed by yellow (gas) light, disguised to an extent which could scarcely be conceived by anyone who was not practically acquainted with the difference. For ophthalmoscopic examinations, which are necessarily always conducted in a dark room, he conceived that a white artificial light must be a special advantage. But in all of the other examples he had instanced, a strong artificial white light could not fail to be of advantage in detecting and watching those yellow deposits and discolorations, and that admixture of yellowish hues blended with other discolorations, which were often of so much moment in studying the pathology of each of the organs he had referred to, and which alterations were often but faintly, if at all, perceptible, at least in their earlier stages, if viewed by yellow light.

There could be no doubt that a dentist attempting on a dark day to scrape out a carious cavity as perfectly as possible, but with the least practicable destruction of sound tissue, would find such a light as this of very considerable assistance to him.

Passing to the special advantages offered by the hand-lantern, it was pointed out that there were many instances of surgical operations of a very delicate kind, such as those for strangulated hernia, which often had to be accomplished under urgent circumstances late at night. In the case instanced, a good light was of great moment in recognising the sheen of the intestine, and yet at the present time the operation was often performed under very imperfect illumination. In naval practice, or in military field practice, where a rapid succession of operations, many of them requiring great nicety of manipulation, had to be performed by the surgeon as expeditiously as possible, an effective, steady, and brilliant white light, in place of an ordinary lantern containing a flickering candle, would be of unquestionable service.

The problem of applying the electric light to surgical purposes was, Mr. Squire considered, a matter which admitted of easy solution, so far as the light itself was concerned, the only drawbacks to its immediate use being the expense and the question of the portability of the necessary electric-generating apparatus in the case of operations undertaken at the patient's residence, and equally in the case of operations performed in military field hospitals. In the case of ordinary hospital practice and of naval practice the question of the portability of the apparatus would not present itself, but in all cases the question of cost was a hindrance. However, in the Navy the chief item of cost—namely, the motive power—was already at hand in the numerous subsidiary steam-engines, with which, in addition to the propelling engine, every ship of war was provided, so that, after the purchase of the electrical machine and the lantern, no further expense remained beyond the electric candles, which cost only fourpence per hour. Moreover, in many ships, electric machines worked by steam power already existed for producing the electric light as a safeguard against torpedo attacks. In the dark cockpit of an ironclad a good artificial light is always essential, even on a bright day. During an engagement, when every lamp on board except those used in the cockpit is extinguished, and when powder is being handed freely about, a light which will burn *in vacuo*, and so can be hermetically enveloped and thus rendered absolutely safe, must be a special desideratum. These conditions are present in the electric light only.

As to the requisite portability of the generating apparatus as part of a military train, a small one-light electric machine, associated with a one and a half horse-power steam-engine, would very well travel in fixed connexion with one another on the same carriage, and would together be much less cumbersome or heavy than an ordinary piece of field artillery. Fuel for a small engine, and water for a small boiler, are always at hand, and these, with a few Jablochkoff candles, are all that are needed.

For operations at a patient's residence, where the question of a good light is often a serious one, the item of portability might seem insuperable, but even stranger proposals than the one now to be submitted have after a time become matters of course. A moderate-sized horse-van might be constructed, containing the electric machine and a gas-engine for motive power; such a van might be kept for hire for such purposes by any enterprising tradesman of one of the various trades that minister to the surgeon's wants. Gas-engines are the motive power of most of the electric lights now burning in various shops in London, and most of them are known as silent gas-engines—that is to say, engines that make no noise whatever. For the supply of gas a hint might be taken from the carriages on the Metropolitan Railway, each of which is provided with a gas-cistern on the roof of the carriage. Each cistern is filled while the train waits at the terminus by simply attaching an elastic pipe from the gas-main. The van proposed might have a similar cistern, and such a van might stop at any house without exciting any remarkable attention, the wires might be pulled off a reel, the ends taken upstairs so as to pass up the well of the staircase, or, if preferred, be drawn up by a string outside the house into the window. This might seem a little elaborate, but the whole proceeding was at least quite expeditious, and possibly a patient paying a hundred guineas for an operation to save perhaps his life might not think two guineas more too much to enable the surgeon to see well what he was about.

As to the question of cost, the Jablochkoff light (which Mr. Squire had selected as the best kind of electric light for his lantern) can at present be obtained only on the condition that a four-light "gramme" electrical machine be supplied with it, and this machine requires a steam or gas engine of rather more than four-horse power to work it. The cost of a four-light gramme machine is £180, and the cost of a

corresponding steam-engine would come to nearly £100, so that the total cost would fall not far short of £300. But for the purpose in view only one light is required, and Mr. Squire trusted that the requisite machine for one light only would soon be forthcoming. This, as he estimated, would bring the total cost down to £100, or perhaps somewhat under that. Now, this as an expenditure of capital for some of our larger hospitals at least would probably not be too much for such a purpose. Nor would it be so for an army corps, or for one of our larger ships of war. As for the van proposed for use in private operations, the total cost of the van might be put in such a case as at about £250, and if this were let out, say only as often as five times a week—a not too extravagant estimate for such a place as London with its suburbs—at say a hire of two guineas, it would yield an incoming of over £500 a year, from which the annual cost of a man and horse might be deducted at £150. For home use, say in dental practice, some of the more frequented dentists living in the same street might readily share one apparatus between them, with wires laid on to the house of each.

Mr. Squire then proceeded to explain the reasons which had induced him to select the Jablochkoff in preference to the other systems of electric lighting for the construction of a light and convenient hand or bracket lamp. He had excluded, for example, Serrin's, Dubosq's, Siemens', and Edison's, chiefly on account of the considerable weight of the machinery required to be immediately attached to the lamp in each of these cases, partly also on account of the liability of these lamps to get out of order, partly on account of the necessary skilled attention which they each require in order to set them going and to maintain them in proper action, and partly in consequence of their not permitting of a horizontal treatment in the construction of the lamp, such as is carried out in Mr. Squire's model. The Wallace-Farmer light was inadmissible on account of the comparative massiveness of the carbon slabs, and the wandering uncertainty of the location of the voltaic arc between them. Reynier's and Werdermann's were unsuited, because in the former case the carbon wheel, and in the latter the carbon disc, were fatal as dense obstructors of the light in attempting a horizontal treatment of them. De Mersanne's light was inadmissible for some of the same reasons quoted in the case of Serrin's; and some of the same objections, although not precisely the same, applied to the Rapieff light with its four diverging carbon points. Of the best known systems of electric lighting there remained only Wilde's light and De Meriten's. Of Wilde's light the solitary advantage was that it would relight itself in case of accident, or rather in case of one particular kind of accident; but that same difficulty had only just before the time of this lecture been surmounted by a clever modification of the Jablochkoff light; whereas Wilde's light demanded a weight counterpoise, so that the hand-lantern constructed with it would go out if tilted too much. Mr. Squire was not sure that De Meriten's light would not, equally with the Jablochkoff, answer his purpose, but he had not yet had an opportunity of seeing it in action. The pre-eminent advantages of the Jablochkoff light for the purpose in view, so far as his opportunities for studying the subject had extended, consisted in the fact that, in common with Wilde's and De Meriten's, it constituted a candle the point of which could be presented horizontally, and that while in that position, without encumbrances or obstructions of any kind, the luminous point could be contained within very small surroundings; that it required *per se* no weight of any kind attached to it beyond itself and its wires, so that it could be held in any conceivable position; that a lamp provided with it could never get out of order, inasmuch as that each time it had shone to its last it burnt itself out all but its wires; and that it required no skill in the use of the lamp, since all that was needed as regards the lamp was to stick in a fresh candle when the old one had burnt out. Suggestions had been made to Mr. Squire to employ a battery, but, leaving out of consideration the very considerable battery-power required for producing an electric light of any kind, and the infinite trouble and expense of managing a battery, there remained the consideration that no battery could produce, but that only an electro-magnetic machine could emit, what was an essential for the Jablochkoff candle, and that was a rapidly alternating or "reversing" electric current. Manual power had also been suggested to him, but seven men were the estimated equivalent of one horse-power, which was the minimum force required to produce one light, and the perfect steadiness of the light that was desirable was not attained except through the steadiness of action of a steam-engine.

Mr. Squire concluded his lecture amid applause. M. Berly, engineer to the Société Générale d'Electricité de Paris, was in attendance to superintend the working of the electrical apparatus.

FROM ABROAD.

The Prizes of the Paris Académie des Sciences.

The *Comptes-Rendu* of the Académie for March 10 gives a list of the prizes which were announced at the annual public meeting; and to each adjudication is appended an account of the reasons that have guided the referees (whose names are given) in their decisions, and which are sometimes stated at considerable length. The prizes relating to medical science were the following:—1. The Montyon Prizes in Medicine and Surgery. It seems that no less than forty-nine works were sent in competition, several of which are stated to have been of real value. The following were selected for reward:—(1) M. François Franck, "Researches in Pathological Physiology"; (2) M. Hayem, "Researches on the Normal and Pathological Anatomy of the Blood," and "Researches on the Pathological Anatomy of Muscular Atrophy"; and (3) Profs. Axel Key and G. Retzius, "Studien in der Anatomie der Nerven Systems." "Honourable mentions" were also accorded to M. Beranger-Féraud for his works, "Diseases of Europeans in Senegal," and "Inflammatory Bilious Fever in the Antilles and in Tropical America"; M. Faivre, "Researches on Daltonism"; and M. Albert Robin, "Clinical Urology of Typhoid Fever." "Citations" were accorded to—(1) M. Proust, "Treatise on Public and Private Hygiene"; (2) M. Toussaint, "The Intervention of Respiratory Actions in the Mechanical Acts of Digestion"; (3) M. Colin, "Typhoid Fever in the Army"; (4) M. Dejérine, "Lesions of the Nervous System in Diphtheritic Paralysis"; (5) M. Le Grand du Saulle, for various treatises on the Medical Jurisprudence of Insanity; (6) M. Fournié, "Applications of Science to Medicine"; (7) M. Gairal, "New Apparatus for the Treatment of Uterine Deviations"; and (8) M. Debout, "Rational Equitation." 2. The Godard Prize is adjudged to M. Reliquet, "Spasms of the Urethra and Bladder; and the Action of Chloroform on these Organs." 3. The Serres Prize has been given to Prof. Alexander Agassiz for his works on Embryology. 4. The Montyon Prize on Experimental Physiology has been gained by M. Charles Richet for his "Researches on the Chemical and Physiological Principles of the Gastric Juice in Man and Animals."

The following are the prize-subjects proposed which relate to medical science:—1. The Barbier annual Prize, consisting in the interest of 2000 fr., for a valuable discovery in medical, surgical, or pharmaceutical science, or in botany, having relation to the art of healing. 2. The Alhumbret Prize of 2500 fr. for 1880, for a memoir throwing important light on the physiology of fungi (*champignons*). 3. The Desmazières annual Prize of the interest of 1600 fr., to the author of a work on the Cryptogama which has appeared during the preceding year. 4. One or more Montyon Prizes in medicine and surgery are annually adjudged to the authors of works or discoveries deemed likely to be useful to the art of healing. 5. The Bréant Prize of 100,000 fr. is offered annually until the author of a cure for cholera or the discovery of its causes makes his appearance. In the meantime, the interest of the money is employed to reward those who have most advanced our knowledge of epidemic diseases. 6. The Godard annual Prize of the interest of 1000 fr. will be given for the best memoir on the anatomy, physiology, or pathology of the genito-urinary organs. 7. The Serres Prize of 7500 fr. will be awarded in 1881 for the best work on general embryology, applied as far as possible to physiology and medicine. 8. The Chaussier Prize of 10,000 fr., for 1879, is to be given to the author of the best work on practical or legal medicine which has appeared during the four preceding years. 9. The

Dusgate Prize of 2500 fr. to be adjudged in 1880, for the best work on the diagnosis of the signs of death and the prevention of premature interment. 10. The Boudet Prize of 6000 fr. will be given in 1880 to whoever shall have made the most useful application of the doctrines of Prof. Pasteur to the art of healing.

The Medical Journals of the United States.

Under this title, Dr. Billings, the indefatigable American medical bibliographer, prepared a curious paper for the *Boston Medical and Surgical Journal* on the occasion of its having completed the first half-century of its existence. It furnishes the titles and dates of all the medical journals that have been published in America, arranged according to the States in alphabetical order, and is a remarkable example of laborious assiduity, the list occupying ten octavo pages, printed as closely as are the foot-notes of our own journal. The total number of the "regular" medical journals published between 1797 and 1878 is given as 250, of which 196 are extinct. Besides these, there have been published within the same period 58 "homœopathic" journals, 48 of which are dead; 19 "botanic," all dead; and 42 "eclectic," of which only 7 survive. Why, when such illegitimate productions as these last are admitted into the list, journals devoted to "pharmacy" and "dentistry" are excluded from it, we are at a loss to understand. Dr. Billings has had ample opportunity of appreciating the worthless character of the great mass of the material he has had to deal with, and observes:—

"As I have elsewhere remarked, the motive for the existence of the minor journals is not for direct profit, but as an indirect advertisement, or—this is the more common—the desire to have a place in which the editor can speak his mind, and attack his enemies without restraint. How shall the would-be journalist be persuaded that no one except his personal acquaintances will care anything about his opinions, his praise, or his blame?"

To this formidable list of journals Dr. Billings appends a table showing the number of medical journals and transactions that are received from all parts of the world at the library (chiefly of Dr. Billings' own creation, and now termed the National Medical Library) of the Surgeon-General's office, and regularly *indexed* there. The journals are 372, and the transactions 201 in number. Confining our attention to the former, they are thus distributed:—United States, 57; Mexico, 2; South America, 7; Great Britain and Colonies, 36; France, 64; Germany, 96; Belgium, 10; Netherlands, 7; Spain, 21; Portugal, 3; Italy, 35; Switzerland, 5; Russia, 10; Sweden and Norway, 6; Denmark, 4; Turkey, 2; China, 1; Poland, 6; total, 372.

Commenting upon Dr. Billings' paper, the Editor of the *Boston Journal* observes:—"We have frequently commented upon the extraordinary propensity for publishing medical journals which has slowly developed itself in this country, until the crop of rank and exuberant weeds bids fair to overrun the land, and kill out such taste as may exist for a healthy and permanent growth of periodical medical literature not depending for its sustenance upon the mould of some decaying school, society, or business interest. That we have hitherto fallen far short in our estimate of the extent to which this peculiar form of medical enterprise has been carried, will be seen by a glance at the interesting and highly valuable statistics prepared by Dr. Billings . . . . Since the war over eighty new journals have been started, and over fifty have come to an untimely end. The advent of thirteen new ones during the past year alone shows that this tidal wave has not yet broken, but threatens to submerge us deeper still. A glance at the table giving the number of journals in other countries shows that we have nearly twice as many as Great Britain, but are far outnumbered by Germany. France also is suffering from similar influences. A glance at the table will, we think, convince the reader that the value of a nation's periodical medical literature is in an inverse ratio to its quantity. Where can be found any journal to compare with the vigorous London weeklies for valuable and interesting reading? The medical science of the world is presented every week in its freshest form. On the other hand, the high scientific stand which Germany has taken is not reflected as it should be by its periodicals, which have steadily lowered their standard during the last decade."

REVIEWS.

The Anatomy of the Joints of Man. By Henry Morris, M.A., M.B. Lond., F.R.C.S., Senior Assistant-Surgeon to, and Lecturer on Anatomy and Demonstrator of Operative Surgery at, the Middlesex Hospital. London: J. and A. Churchill.

So important is an accurate knowledge of the anatomy of the joints, both to the student and to the surgeon, that it must appear strange that no special work on the subject has hitherto appeared to meet a want which both must have felt. It is true Professor Humphry's valuable work on the Human Skeleton has long been known, but few students have been found willing to open such a bulky volume, and it is only occasionally it can be seen on the library shelf of the busy practitioner. The student needed a book in which he could learn all that related to a special joint, from its movements to its nervous and vascular supply, arranged for easy reference, and told withal in an attractive manner. For such information he would be obliged to seek here and there for the scattered information afforded by most of the current anatomical works, for he would find no complete and consecutive history. We are, therefore, glad to welcome Mr. Morris's book. It appears at a time when it is much needed, and it will, we believe, fill a gap which has too long been left open.

The author treats in his first chapter of the various parts which enter into the composition of joints, dwelling upon the forms of cartilage here met with, the structure of ligament, the synovial membrane, the bursæ, the muscles, etc., and the offices of these various structures in the economy of the joint.

Speaking of the attachments of muscles to the bones near joints, the author makes the following interesting generalisation as applicable to the joints of the trunk:—The muscles are so disposed as never to strain the ligaments of a joint by tending to pull one bone from the other with which it articulates, but, on the contrary, add strength to the joint sometimes by decussating with muscles of the opposite side, sometimes by the same muscle pulling tighter together the two bones of an articulation. Later on, allusion is made to the law which Hilton and Schroeder Van der Kolk alike formulated: "The same trunks of nerves whose branches supply the groups of muscles moving a joint, furnish also a distribution of nerves to the skin over the insertions of the same muscles, and the interior of the joint receives its nerves from the same source. This implies an accurate and consentaneous physiological harmony in these various co-operating structures."

The different varieties of joints are next discussed, and then their special description is commenced with the temporo-maxillary joint. The osseous surfaces, ligaments, synovial membranes, arteries, nerves, and muscles, are all described, and finally the action of these last on the joint itself. After a careful examination of the various movements, the author says:—"It has been stated that the head can be made to move on the condyles of the inferior maxilla if the chin be held steady. Anatomists are quite silent in regard to, if indeed they have not quite overlooked, this movement, and although it is not of any great importance in the animal economy, it is a feature of interest and worthy of being pointed out; besides, it is occasionally employed, as when the head is suddenly bobbed forwards to give greater force to the masticatory muscles, as in cracking a nut, for instance. It may be illustrated by simply fixing the chin in the hand, and then throwing the head back, as in looking up to the ceiling; or after opening wide the mouth, closing it by dropping the head forwards and downwards towards the lower jaw, instead of raising the lower jaw towards the upper." The same view—which is doubtless correct, though usually overlooked—is held in reference to a like movement of the forearm, which is described as a "rotation of the ulna." It must be remembered, however, that without it there could be no rotation of the humerus at the shoulder-joint *as long as the hand and the lower end of the radius remain fixed.* It is effected under these circumstances by the rotation of the "humero-ulnar" shaft; examples of this movement are seen in vaulting or in fixing one hand firmly on the back of a chair and walking round the seat. The reason this movement has been overlooked is probably because of the

absence of any muscles in the forearm which at first sight could move the ulna on the radius, but if the humero-ulnar shaft be regarded as a rigid rod, it becomes obvious that the muscles which rotate the humerus also rotate the ulna upon the fixed radius.

We have already quoted enough, we think, to show that Mr. Morris has treated his subject with care as well as originality. He always expresses himself clearly, and if at times his descriptions are lengthy, they are always bright and fresh, and stand in happy contrast to the dull monotony of description with which the student is sometimes too familiar. We cannot pass by the illustrations without a word of notice, for they add much to the attractiveness of the volume, and, being drawings from actual dissections made especially for the work, cannot fail to add to its value. It seems to us, however, a pity the bursæ were not illustrated in the same manner from original dissections. Being reduced copies of the large plates in Monro's great work on this subject, they have doubtless a certain historical value to the student, but we think such drawings are a little out of date at the present day. Should the work reach a second edition—and if it have the success it deserves it assuredly will—we would suggest in their place original drawings illustrating these important structures. The work is printed on excellent paper, and the type is large. The publishers have certainly succeeded in producing a handsome as well as a cheap volume on an important and somewhat neglected subject.

Pathologische Anatomie der weiblichen Unfruchtbarkeit (Sterilität) deren Mechanik und Behandlung. Von Dr. Herman Beigel, etc.

The Pathological Anatomy of Sterility in the Female: its Mechanism and Treatment. By Dr. Hermann Beigel, Member of the Royal College of Physicians, and of the Obstetrical and Pathological Societies of London; Physician-in-Ordinary for Diseases of Women to the "Maria hilfe" Dispensary of Vienna, etc. Brunswick. 1878. Pp. 419.

We must confess that we take up a book on sterility with somewhat of a prejudice against it, and we feel a special unwillingness to criticise this work, as its author, to the great regret of the numerous friends he gained by his industry and energy during his life in London, died lately at his new home in Vienna. It may be said that we know hardly anything about the causation of sterility; and its treatment, especially in the female, has been much professed by men of quackish tendencies, to their own pecuniary advantage, but to the injury of their patients and the discredit of medical science. Therefore we anticipate that a big book on this subject will be either one containing great additions to our knowledge, or else another addition to the rubbish-heap.

This book begins with an account of the anatomy of the female generative organs; next, a *resumé* of their physiology is given; and then their morbid anatomy is described. Every disease that can possibly disturb the sexual function in any way whatever is mentioned, and discussed from that point of view. All this, however, is merely introductory, and leads up to what, we suppose, is the object and aim of the book, viz., the mechanism and treatment of sterility. Here we may mention a fact which will save us much trouble in quotation: it is, that Dr. Beigel was the translator into German of Dr. Marion Sims' well-known work. He appears to have looked upon that author's writings as the great treasury of sound knowledge upon the diseases of women.

The German schools of medicine do admirable work in respect of their unwearied industry, their minute and persevering observation, their bibliographical learning, and their skill in piecing together details. Their defect, and that in which we humbly think English medicine compares favourably with German, is the fault which might have been anticipated in medical work done in several independent, small centres of population, distant from one another. In a town of only 30,000 inhabitants, if division of medical labour is carried very far, each individual worker can only get a narrow field of observation. Now, a theory as to disease (especially as to a condition so complex as sterility) can only be tested properly by a *great many* cases. And this is what the German writers often need to bear in mind. A good example of the errors into which this turn of mind leads them is seen in this book, and in the eagerness with which the ingenious theories of Dr. Marion Sims have been adopted in Germany.

Take for instance the operation for anteflexion. Nothing could be neater than the theory. A uterus bent at an angle; a consequent narrowing of its canal at that angle; therefore semen cannot get in; the patient is sterile. The canal is enlarged with the knife; pregnancy ought to result. A perfectly logical and consistent theory, which lacks only that its premises should be in accordance with fact, and that it should be verified by results. The objections to it are that the uterus is not bent at an angle, and that, notwithstanding what bending there may be, spermatozoa do get into the uterus, and pregnancy does happen; that if women with this condition be sterile, the operation in question so seldom makes them fertile, that when pregnancy does follow it, it may fairly be set down as a coincidence merely; and, lastly, that the operation has been followed by dangerous hæmorrhage, by peritonitis, and by death.

Our assertion as to the uselessness of the operation may be thought matter of opinion; therefore we add, that in the case of an undoubtedly dangerous operation, as this is, the *onus probandi* lies on those who recommend it. Further, that the publication of individual cases, in which pregnancy followed the operation, proves absolutely nothing. It is necessary to publish *every case* in which the operation has been done, with the results of each, both good and bad, in order to estimate its value. Till this has been done, it remains an operation indubitably dangerous, and which has never been proved to be beneficial.

We have made these remarks, which may at first seem irrelevant, because the weakness of the book lies in this direction. It is a book simply of theory, and of unverified theory.

Our knowledge of the causes and cure of sterility in the female will depend upon our knowledge of the anatomy and physiology of the female genital organs, and the natural history of their diseases. To rightly study the difficult problems here presented to us, we must decompose them into their simplest parts. To begin with one of the most complex is not the way to arrive at sound conclusions.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

April.

Rice-Meal—Necessity for further Water-Supply—Recreation Spaces—Disposal of Pauper Lunatics.

Liverpool has been several times lately rather unpleasantly surprised to learn that very large consignments of food of various kinds, intended for its inhabitants, have been seized by the inspectors and destroyed by magistrates' orders. Its pigs have now reason to be grateful to those vigilant gentlemen for rescuing them from becoming the unconscious victims of an experiment that would have proved trying to even their proverbially strong digestions. The first steps in this experiment were the importation from Italy, and exposure for sale here, of 1007 bags of what was euphemistically denominated rice-meal, but which proved on analysis to consist of from 41 to 52 per cent. of ground marble, 21 to 28 per cent. of ground husk, of a varying percentage of moisture, but in no sample of more than 20 per cent. of genuine rice. Evidently, rice-meal was a misnomer, and the proper designation would have been that given to it by the public analyst, viz., "Marble flour, or a mixture of marble flour, husk, and rice." It was stated in evidence that if sold it might probably be used for feeding cattle and pigs, and general feeding purposes, but not for human food, unless it was bought by some unprincipled person, when it might be used to adulterate real rice-meal, without any chance of the fraud being detected except by an experienced person. It was further stated that the article in question was unfit even for pigs. The bags were ordered to be destroyed. On the following day it was explained by the London solicitor of the consignors, Messrs. Pastorino and Co., of Genoa, that the meal was not an adulterated article intended for human food, but was simply the natural result of cleaning the rice in the Italian fashion

and, there being no use for it in Italy, that it was forwarded to England, partly for manure, and partly for pig-feeding. Permission was asked to mix the substance with soot, so that it could be used for no other purpose than manure. This was granted, the consignors through their agents being permitted, under the direction of the officers of the Health Committee, thus to dispose of as much of the material as had not already been destroyed.

For a long time the Corporation have had in view the necessity that will arise at no very distant date of increasing the sources of water-supply to Liverpool. Since 1876 the supply has been a constant one, and, though much saving has been effected through the vigilance of the inspectors in detecting waste (and especially through the adoption of an ingenious meter invented by the borough engineer), it has been felt that it cannot long keep pace with the increasing demand. Influenced by one of their number, who pertinaciously opposed the adoption of any comprehensive scheme for the provision of a sufficiency for very many years to come, on the ground that the sandstone of the district would yield all that was required, the Council authorised the sinking of a second bore-hole at Bootle, much deeper than the one already existing there. The reports recently issued as to the availability of this source to meet the wants of the future are certainly not very encouraging. They are from Dr. J. Campbell Brown (the borough analyst), Mr. Duncanson (the water engineer), Professor Frankland, and Mr. Hawksley, C.E. The latter gentleman summarises his report in the following words:—"That the new bore-hole must be regarded as a means of facilitating the flow of water from the surrounding sandstone formation to the Bootle well. That the quality of the water will be somewhat deteriorated. That under the restriction of depth to which I have adverted"—*i.e.*, that the surface of the water must not be reduced by pumping lower than forty feet below ordnance datum—"the yield of the bore-hole will not be copious, nor the injury to the quality of the existing and increased supply sufficiently marked to prevent the Corporation from completing the undertaking and availing themselves of all the advantages that can be obtained from it." The reports of the three other gentlemen being not more encouraging, it is not surprising that the Corporation is again considering other schemes for obtaining an adequate supply. Two places that have been previously debated, and that are to be again discussed shortly, are those for going to Haweswater, or to Wales, the great objection to the latter being the great liability to the water being coloured by the peaty soil through which much of it flows.

Not only is the present supply from every available source too small for our prospective wants, but a widespread and indignant (and, judging from the report of accredited analysts, not unwarranted) demand by the inhabitants of Little Woolton, both individually by letters to the newspapers, and officially through their law-clerk, has been made either for the closure of one of the wells, viz., that of Dudlow-lane, or the adoption of such means as shall render its water free from impregnation with sewage.

Since 1841 almost all the open spaces which existed in Liverpool have been built upon, so that there are now more than twice as many houses, and nearly, if not quite, twice as many people, on a given area, as there were then. And now one of the last of these spaces, a large tract known as Kensington-fields, easily accessible from some of the most densely populated portions of the town, and admirably adapted for a permanent breathing place, is exciting the desires of speculative builders, and, if strong representations are not made, will very soon be thickly covered with closely built streets.

The Guardians of the West Derby Union are in a somewhat unpleasant predicament. Knowing that they expose themselves to a penalty if they keep dangerous lunatics in their workhouse for more than twenty-four hours, and yet having more of this class than they can accommodate, they apply to the county asylum, but are met by a refusal on the part of the authorities of that institution to take any but "nice" cases. They are compelled, therefore, as many of their cases are judged not to come under the category of "nice," to avail themselves of the resources offered by a private asylum, until either their own accommodation can be rendered more adequate, or the fastidious tastes of the authorities of the county asylum in matters of lunacy can be corrected.

GENERAL CORRESPONDENCE.

THE CHLORAL COMMITTEE OF THE CLINICAL SOCIETY.

LETTER FROM DR. R. FARQUHARSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—The Committee appointed by the Clinical Society to investigate what deleterious effects follow the prolonged and continuous use of chloral in ordinary doses, before concluding their report, think it well, in view of the practical importance of the subject, to appeal to those members of the profession who have not as yet assisted in the inquiry to contribute their experience. They would venture to suggest to those who enjoy the special facilities for observation afforded by family practice, that facts bearing upon the question will be particularly acceptable from them. Provided that the subject of the communication is the result of accurate observation, the mere circumstance that it is isolated, apparently inconclusive, and not of obvious importance, should not stand in the way of its being reported to the Committee. It must be remembered that it is only by the collection and comparison of a large number of such facts that any useful conclusion can be arrived at, and the report of the Committee will be valuable in proportion to the amount of aid which is rendered by the profession at large. Printed schedules will be forwarded on application, and information in any form received by the undersigned. I am, &c.,

R. FARQUHARSON, M.D., Hon. Sec.

23, Brook-street, April 9.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 28.

Dr. GREENHOW, President, in the Chair.

MR. BARKER exhibited a patient suffering from Ichthyosis of the Tongue.

A SILVER CATHETER BROKEN INTO THE BLADDER.

Mr. CHRISTOPHER HEATH read notes of this case. The patient, aged seventy-one, with an enlarged prostate, who had been in the habit of using a catheter, on August 2 employed an old silver one which had been broken and roughly soldered, and in withdrawing it, left the end behind. He at once came to the hospital, and Mr. Heath saw him soon after; and with a lithotrite, caught and brought away the extreme end of the catheter, including the eye. The following day, Mr. Coxeter, the instrument maker, being clear that there was still a missing piece, Mr. Heath again introduced the lithotrite, and grasped the fragment, but was unable to withdraw it. On a subsequent occasion, Mr. Heath tried to break up the fragment with a more powerful lithotrite; but failing in this, on August 7 performed median lithotomy, and removed the fragment, which measured an inch and three-eighths, and weighed twenty-five grains. The patient made a slow recovery, the enlarged prostate giving a good of trouble, and was discharged September 27, well.

Mr. TREVAN observed that he had himself performed a similar operation, and called it median lithotomy, as Mr. Heath had done. Inasmuch, however, as in the operation for removal of a broken catheter the neck of the bladder was neither cut nor torn, it would be much better if surgeons were to call it external urethrotomy, which it really was, and not median lithotomy. The operation was usually a most successful one, simply because it was extra-pelvic, and hence attended with little risk. Lithotomy, on the other hand, was an intra-pelvic operation, and consequently more dangerous.

Mr. BRYANT remarked on the interest of Mr. Heath's case, and the fact that the different lines of treatment which may be followed are not sufficiently clearly recognised. No doubt the lithotrite was the best instrument to begin with; and on failure of this means, external urethrotomy should be performed. In his own practice, a small guttapercha catheter had once broken in the urethra. Here there was no alternative, and he therefore proceeded to perform

external urethrotomy, and to remove the fragment. He was not aware of the record of any case similar to Mr. Heath's, where a silver catheter had broken in this way.

Cold Douche Treatment of Traumatic Meningitis.

Mr. Keetley related the particulars of a case of severe traumatic meningitis treated in the stage of coma by cold douche for two hours and a half. The patient, a groom, aged thirty, was thrown from his horse into a ditch, alighting on his head. There had been a short period of insensibility, but on admission to the hospital he was conscious and irritable. The accident had happened at five o'clock in the afternoon, and at six the next day, having passed a quiet night, he was seized with a convulsive attack, confined to the left side. During the day he had several similar seizures, in which his eyes were strongly turned to the left; in the intervals he vomited occasionally. On the third day he remained in much the same condition; but on the fourth the right side was affected; and after the attack this side was found to be paralysed. Towards evening he improved considerably; and on the following day it was noted that his face was heavy, his pupils contracted, and he resembled a patient suffering from opium-poisoning; the temperature was 100°. On the sixth day the coma was increased; temperature 100°, pulse 120. The cold douche was applied to the head for two hours and a half. The temperature was 99°; pulse 70; his face rather blue. He could answer questions, but had a fatuous expression, and his answers were often childish. After this time he steadily improved, and ultimately recovered. A fracture of the posterior fossa was diagnosed, extending to the base of the skull; the severity of the injury, and the severity of the meningitis, appearing to point to such a condition. The epileptic seizures at first appeared to point to an injury of the dura mater over the seat of violence; and the later attacks on the opposite side to an extension of the inflammation to the meninges of the other hemisphere. There was no difficulty in regulating the time during which the application of the douche was beneficial. The blueness of the lips was only noticed after more than two hours of this course of treatment. It should be added that he had previously been treated by an ice-bag to the head and the administration of aperients.

Dr. Sturges had lately seen a case which presented many features of resemblance to Mr. Keetley's. An elderly woman had fallen on her head down a flight of stairs. On admission she could hardly be called semi-comatose. In two or three days she had convulsions of the left side, with a rapid rise of temperature to 106°, followed by an equally rapid fall. Afterwards the convulsions passed over to the right side. Eventually, after fifty or sixty fits, the patient began to recover, and gradually got well. A fracture of the base was diagnosed, and a meningitis affecting first one side and then the opposite.

Mr. Godlee asked why an ice-bag had not been used, instead of the cold douche. He had seen a somewhat similar case, where, after using the ice-bag for two days, the fits subsided. In another, where the convulsion had passed from one side over to the other, arachnoid hæmorrhage had been present, but no meningitis.

Cystotomy.

Mr. Teevan exhibited a patient upon whom the operation of cystotomy had been performed. The man, who was a wine cooper, aged forty-three, came under his care in July, 1875, having a stone in the bladder two inches by one and three-quarters. The urine was a mass of muco-pus streaked with blood; no renal elements could be found. He suffered much pain and could not work. Mr. Teevan determined to crush the stone, because he had by lithotrity completely cured a similar case, where the stone was only one-quarter of an inch smaller, and he wanted to find out the extreme limit to which the operation could be advantageously pushed. Accordingly, in twenty-six sittings, of about one minute each, he completely removed all the stone. The patient was, however, not cured, but only relieved. The pain he suffered incapacitated him from work, and the urine contained much muco-pus. For many months various medicines and injections were tried, without success. Under these circumstances he determined to perform cystotomy. The bladder was carefully examined by many surgeons, but not a particle of stone could be discovered. On September 17, 1876, Mr. Teevan opened the bladder by a median incision from the perineum, incising the neck vertically with a probe-pointed knife to the depth of about half an inch. The immediate effect of the operation was that the patient was relieved of his pain, and his urine began to clear about ten days afterwards. Three weeks after the operation the patient was apparently cured of his cystitis. The wound, which had been kept well open, was then allowed to close, and three weeks later the patient was perfectly well and water-tight. He remained perfectly well, and had continued uninterruptedly at work ever since. Cystotomy was rarely performed in England, and was only mentioned in a few surgical works of modern date. In America, however, it had been established as a set operation since 1850, when Willard Parker, of New York, introduced it. The propositions he would lay down were—1. That cystotomy was indicated in those cases of obstinate cystitis which resisted ordinary treatment. 2. That renal disease was no bar to the operation. 3. That the general conditions of the patient, rather than the results of an examination of the urine, ought to determine whether, in a given case, an operation was justifiable or not.

Mr. Marsh asked if this case could not have been better treated by lithotomy from the first.

Mr. Bryant quite agreed as to the advisability of cystotomy for chronic cystitis. He had done five or six cases, of which three recovered; the others eventually died of the disease which led to the cystitis; but he differed from Mr. Teevan in being disinclined to touch cases where there was evidence of renal disease, and mentioned a case of stricture which had lately been under his care, where he refused to do perineal section in consequence of the presence of nephritis, and where, shortly after considerable relief had been obtained by catheterism, the patient died uræmic.

Mr. Heath inquired whether the whole prostate had been divided along the floor. Surely such a treatment must interfere with the ejaculatory ducts. He was also desirous to hear the experience of Mr. Teevan and Mr. Bryant with regard to the amount of hæmorrhage met with in these elderly men with enlarged prostates where a free incision was made.

Mr. Teevan replied that if he had the time over again he would not have done lithotrity pure and simple in this case, but having performed a perfect lithotrity at one sitting, would have immediately done external urethrotomy, so as to have got rid of all the fragments at once. He did not, however, think the combination suitable for very large calculi, but for those only which were just outside the pale of lithotrity. In answer to Mr. Bryant he said that he thought it was better to operate in cases where there was renal disease, and so afford patients a chance of recovery rather than leave them to die a miserable death. He had known cases in which there was renal disease do well after operation, and the experience of Mastin on diabetic patients was most encouraging to the surgeon. In reply to Mr. Heath he stated that he thought a medio-lateral operation would be preferable in old men, although he thought median lithotomy unjustifiable in boys on account of the risk of emasculating them. He considered the objection sank into insignificance in the case of middle-aged adults.

Excision of the Tongue after Tracheotomy.

Mr. Barker read notes of a case of excision of the tongue in which a preliminary tracheotomy had been performed. After giving a short history of the treatment of such cases by an immediate tracheotomy to avoid the risk of the passage of blood down the trachea, he alluded to two cases in which, to his own knowledge, this source of danger had proved fatal; but he added that in the case brought forward that night the tracheal wound had been purposely kept open in order to avoid, as far as possible, the risk of the inhalation of septic matters into the lung during the earlier part of the after-treatment. This was a real danger, for he had seen such operations followed by death, the result of septic pneumonia, or even gangrene of the lung. The patient was a man, aged forty-nine, who was admitted to University College Hospital in April, 1877, suffering from an epithelioma of one side of the tongue, and some glandular enlargement below the jaw. Tracheotomy was performed with unusual ease, a small circle of the trachea excised, and Trendelenburg's tampon tube introduced and inflated. Considerable dyspnœa resulted at first, which however soon passed off. Syme's operation for the removal of the tongue was then performed, the jaw and lip divided in the middle

line, and first one half of the tongue cut through, and the vessels secured, and then the other. On the next day the tracheal tube was removed, the nostrils stopped with wool, a tube introduced into the mouth and connected by an elastic pipe with a reservoir under the bed, while the mouth was otherwise closed by a pad. The patient was allowed to breathe through the tracheal wound. In five days the plugs were removed from the nostrils, and in a few days more the mouth was freed from the tube. The after-history presented few unusual features. There was on two occasions some oozing, requiring the application of perchloride of iron; and there was once a rise of temperature to 103°. This, and probably the oozing, depended on an alveolar abscess, which was relieved by the extraction of some loose teeth. The convalescence was rendered rather tedious by the exfoliation of two pieces of bone from the cut surfaces of the jaw, but the patient is alive and in fairly good health at the present time.

Mr. Marsh thought the subject one of great importance. He had lately removed one-third of the tongue in a case of epithelioma, and the gentleman died in a few days of septic pneumonia, and to obviate this danger Mr. Barker's suggestion was valuable. For the better management of hæmorrhage he did not think it would be generally necessary to open the trachea. He had seen many such operations, but in none had the hæmorrhage been alarming. The method of cutting one half of the tongue, and then the other, did not appear to him as good a practice as to split the tongue longitudinally, and to remove each half with a whipcord écraseur. He believed that when the jaw was divided in the middle line it seldom united well, and necrosis of small portions was common.

Mr. Bryant said no doubt the subject was an interesting one, but, after a considerable experience in excision of the tongue, he was not prepared to adopt Mr. Barker's method of operating. Serious hæmorrhage after the use of the écraseur was rare, and generally the fault of the surgeon. He was also inclined to doubt the reality of the evil effects following the inhalation of air which had passed over the sloughs in the mouth; and they could be greatly obviated by keeping the mouth clean. He also wished to learn whether the opening in the neck was large enough for the whole of the inspired air. In conclusion, he was still of opinion that the ordinary method of treatment was sufficient. Generally it would be better to operate below the jaw rather than to divide it.

Mr. Barker replied that he had carefully tested the sufficiency of the hole in the trachea; that his cases of abscess of the lung had been very striking, and, to his mind, conclusive; and that he knew of two cases at least which had ended fatally by the passage of blood into the trachea.

The meeting then adjourned.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 1.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

Lymphadenomatous Tumours in Neck and Scalp.

Mr. Morrant Baker exhibited a male patient, aged thirty, who had several soft tumours in the neck and scalp. They were situated symmetrically, there being one in each submaxillary region, and one over each mastoid process, while a single one occupied the neighbourhood of the middle line at the back of the neck. They felt like very soft fatty tumours, but they were probably lymphadenomatous in nature. They had appeared first during last summer, and had increased gradually in size up to the time patient presented himself at St. Bartholomew's Hospital, two months previously. During the last month they had decreased to one-third of their greatest size.

The President had seen a patient with similar tumours in precisely the same situations. When he saw the case they felt like loose cellular growths, and not at all like glandular tumours. But a year afterwards the patient began to suffer from dyspnœa, and death soon followed. Post-mortem, glandular growths were found pressing upon the bronchi, and he had no doubt that the tumours were all of a lymphadenomatous character. In that case there was never any evidence of a tendency to disappear.

Dr. Barlow said the tumours in Mr. Baker's case felt exactly like those found in cretinous children, which sometimes tend to become absorbed. They were of a fatty nature, but much softer and less circumscribed than ordinary fatty growths.

Changes in the Sweat-Glands in Cancer and Leprosy.

Dr. Hoggan made a communication on this subject, illustrated by drawings and microscopic specimens, supplementary to his previous communications to the Society in which he had stated the effect of the two diseases on the lymphatics. He now wished to trace the changes in the individual cells and in the sweat-glands themselves. He had grouped the two diseases together because their morbid processes and results, being of so entirely different characters, were more strikingly shown in contrast, as illustrating the extremes of hypertrophic and atrophic pathology. He had formerly followed the cancerous changes in two kinds of cells—(1) in the lymphatic or wandering cells, which formed the great mass of the cancer-growth, and from their embryonic character were by far the readiest of all cells to take on cancerous infection; and (2) in the endothelial cells forming the walls of the lymphatics, which did not yield to the cancerous infection till after exposure to direct contact with cancer-cells. But in the case of the epithelial cells lining the sweat-glands this direct contagion from diseased cells was not necessary; the mère existence of a cancerous influence in the neighbourhood seemed sufficient. Thus some of his specimens showed tubules with only one cell becoming cancerous, with no continuity or contiguity of cancerous cells; in other specimens all the cells lining the tubule had become cancerous *in situ*, which they were enabled to do by the bursting of the basement membrane; while in other specimens, with that membrane unruptured, the lining cells, having become cancerous, had become dislodged to allow of further growth. The character of the cells of the basement membrane was invaluable in identifying cancerous sweat-gland tubules, even in the midst of a tumour. From their endothelial nature they were much less ready to become cancerous than the epithelial cells lying upon them. These last he had found to be the readiest of all the fixed cells to take on cancerous infection. He especially insisted on the difference between cancer of the skin and epithelioma: while in the latter the malignant influence began in, and extended down from, the epithelium, in the former—the disease illustrated by his specimens—he had been unable to find a single cancerous epidermic cell. In cancer of the skin the secondary tumours developed in the sweat-glands, and more frequently still from cancerous lymphatics. These growths underneath the epidermis cut off its nutrition, and finally the whole tissues became sodden with fluid (the lymphatics being occluded), and the epidermic cells perished by a process of moist gangrene. The hairs, hair-follicles, and sebaceous glands fell away in the same manner without becoming cancerous. The hair muscles, however, became incorporated in the tumour, their individual cells becoming cancerous. The tumours developing in the sweat-glands being wholly cellular, show the medullary type, while the contiguous wandering cells, becoming cancerous while lying between the bundles of gelatine, produce cancer of the scirrhous type. In nearly all cases, cancer first developes in the upper portion of the glomerulus, for on this aspect of the gland the infected lymphatics specially lie. As a secondary effect, the pressure of a cancerous tumour on neighbouring gland-ducts may cause the glands to become cystic. A cancerous gland-tubule showed extreme hypertrophy, as compared with a tubule disappearing in leprosy, which showed the opposite extreme of atrophy. He divided the degeneration in leprosy into two stages, the first being hypertrophic and characterised by increase in the number of the lining cells, by their destruction by vacuolation, and by the cystic condition of the glomerulus portion of the tubules. The second was atrophic throughout, the *débris* of the vacuolated and burst cells being gradually absorbed, the denuded gland-tubes becoming attenuated by the lateral contraction of the cells of the basement membrane, the result being the complete disappearance of the gland-tubes, their place being taken externally by gelatine. Neumann had misinterpreted these atrophied ducts as the remains of hair-follicles, and transverse sections of them he had called "colloid globules." The degenerative changes pass, not from above downwards

as at present supposed, but in the opposite direction. At first little globules of fluid appear beneath the nuclei, which ultimately distend and rupture the cells. That the vacuolar fluid is not fatty in nature is shown by treating the specimens with osmic acid; and that the vacuole does not begin in the nucleolus is evident from the fact that the nucleus could often be seen floating in the fluid of the vacuole. There was nothing specific in the degeneration of the sweat-glands in leprosy. What he had described would be found equally true of physiological or chronic atrophy of glands. As regards the manner in which the *débris* in the tubules disappears, he held that it passed away, to a certain extent, in solid but minute particles, by a process described by him in a joint paper recently presented to the Royal Microscopical Society.

Melanotic Sarcoma of Eyeball.

Mr. Spencer Watson exhibited this specimen, taken from a man fifty-eight years of age, who had a cachectic appearance, and had suffered for two months with pain and loss of vision in the right eye. No history of injury or of cancer in the family. The tension of the affected eye was in excess, the pupil was insensible to light but was not dilated, and a dark body was found in the lower and outer part of the vitreous. Enucleation was performed, and a coal-black tumour was found occupying the lower and outer two-thirds of the vitreous space. There was also found a small nodule outside the sclerotic, the latter structure being itself healthy. The tumour was found on section to be not uniformly pigmented, and under the microscope was found to consist of cellular elements, the less deeply pigmented portions showing, when broken into fine shreds, the characteristic appearances of melanotic sarcoma. Some suspicious hardness had been detected in the orbit after the operation, but this was now disappearing, and was probably due to normal cicatricial tissue. The point of interest was whether the tumour had advanced to the degree of malignancy to make one suspect its reproduction. He thought not, for in a similar case, in which he had operated two years and a half ago, there was as yet no sign of recurrence; but in that case the disease was entirely within the sclerotic.

Dr. Powell thought that though such a tumour was not reproduced even in two years and a half, it might recur at a later period. He had at present a patient in Brompton Hospital, who had had his eye removed for a melanotic tumour three or four years ago, and who was now expectorating material of a black appearance, which strongly suggested secondary melanotic growths in the lungs.

The President had had a case similar to Mr. Watson's. He removed the eye and the patient did well, dying eight years afterwards of cancer of the uterus, which was probably not connected with the former disease of the eyeball.

Adjourned Discussion on Lardaceous Disease.

The President said that, whether this discussion produced much or little actually novel, no one would doubt that the Council acted wisely in deciding to have the subject specially discussed by the Society. Ten years ago, at the suggestion of Dr. Dickinson, a committee was appointed to examine into the nature of this disease, and to advise as to the name by which it should in future be known. The chemical investigation, in which Dr. Marcet took the chief share, conclusively determined that the substance is albuminoid, and the term "amyloid" was abandoned for "lardaceous." Since then but little additional light had been thrown on this subject in the Society, and it was therefore appropriate that they should now ask whether any new knowledge had been obtained; and, if so, what it is. The objects of the Council in inviting a discussion on this topic were, he believed, firstly, to obtain statements of new facts, illustrated by preparations or drawings; secondly, to obtain numerical statements of post-mortem-room experience; and, thirdly, to draw forth brief expressions of opinion from those who had no new facts to furnish. Although no new facts had been elicited at last meeting in the discussion which followed Dr. Dickinson's opening paper, they had an excellent summary by Dr. Turner of the dead-house experience of the London Hospital, and they had heard brief statements of their present creed from two of the ablest pathologists in Europe, Dr. Gairdner and Dr. Wilks, both of whom had worked as pioneers in this special subject. He hoped that they might, in what remained of the discussion, be more successful in obtaining new facts. But even if little more should result, the Council would not be disappointed, as it would have been shown that at present there is not much more to be said on the subject, and that our ablest pathologists are almost unanimous as to the chief facts. He would state very briefly some of the questions which had occurred to him as requiring further elucidation. Could anything be said against Dr. Dickinson's view, that lardaceous deposit is an infiltration from the blood, not a transmutation of tissue, and that it escapes alongside the arterioles of certain known viscera and regions; or was this view to be considered as accepted? Dr. Dickinson had also affirmed that a deficiency in alkali is the main feature in which lardaceous infiltration differs from the more ordinary forms of albuminoid deposits. He also, in a general way, cut down the list of supposed causes, asserting that suppuration and syphilis far exceed all others in importance. He had not stated whether syphilis, unattended by suppuration, could cause the disease, or could cause it in any severe form. If syphilis *per se* be an efficient cause, how did it act? That the mere existence of a syphilitic taint could produce the disease seemed improbable, otherwise lardaceous disease would be much more common than it is. There were two modes of explaining the facts: one, that the protracted suppuration attendant on certain severe forms of syphilitic ulceration of skin and bone produces general lardaceous tendencies, just as other forms of prolonged suppuration would; the other, that syphilitic gummatous formations are themselves locally liable to lardaceous change, independently of general predisposition. But did these two hypotheses embrace all the facts? or were there cases of severe general lardaceous disease in syphilitic subjects in whom there had never been suppuration? He (the President) regretted he himself had no facts to offer for the solution of this most important question. He was, of course, familiar with the hopeless cachexia into which occasionally syphilitic patients fall, and in which extensive lardaceous changes were believed to have taken place; but he could recall no such case in which severe suppuration had not preceded the cachexia. Dr. Dickinson had noted the tendency of new formations to become the seat of lardaceous changes, his statement that he had found them in fibrinous growths in the valves of the heart being to him (the President) quite novel. Dr. Turner had confirmed the statements as regards cancer as a cause. He hoped for further information regarding this class of influences, and also lymphadenoma as an occasional cause. He would hint that it would be well, in numerical statements, to distinguish severe cases showing a general tendency to lardaceous deposit from slight cases as where the product was detected only in a single viscus or new growth. There might be local as well as general predisposing influences, and the two classes might differ most widely in importance. Without wishing to go beyond the field of pathology, he might be permitted to ask what evidence there was regarding the retrograde or curative changes possible in lardaceous disease. Do its deposits ever disappear, and is it possible for an organ once affected to be restored to soundness? If not curable, is it always aggressive, and at what average rates? What are the conditions by which it is most certainly identified during life when not well marked, and how long may be the period of action of the supposed cause before development of the disease? In some of Dr. Turner's cases supposed to belong to the suppuration group, the only proof was the existence of a scar which had been sound for some time. Was there any reason to suppose the drugs given for syphilis took any share in predisposing to these changes? The disease was said to be very common in hot climates; he hoped the members would give their experience as to the influence of climate. Sea-air seemed to have decidedly some curative effect. In conclusion, he said that the only criticism he would make on Dr. Dickinson's excellent paper was that it was briefer than he could have wished, but he hoped that in his reply Dr. Dickinson would be able to give them some additional information. He had already earned the deep gratitude of the Society.

Dr. Greenfield exhibited some specimens, showing the staining with aniline violet of the lardaceous material. He also showed a drawing, sixty years old, of a lardaceous liver, labelled "lipoma of liver." He had listened with the greatest pleasure to Dr. Dickinson's paper, but he feared that some of the difficulties connected with the subject had been kept

in the background. He would call attention to the useful staining agent for lardaceous material which Cornil had introduced three or four years ago—methyl-aniline violet. This stained lardaceous tissue of a reddish-violet colour, while other allied tissues were made purple by it. After the addition of acetic acid the red colour of the lardaceous material was retained and intensified, the other tissues continuing purple. In now proceeding to criticise some of Dr. Dickinson's opinions, he felt that it was far easier to express doubts than to solve them. He would ask, first, is the iodine reaction pathognomonic? He thought not, for colloid degeneration sometimes showed it, as also many syphilitic gummata, when the microscope indicated no lardaceous change. It was true that casts from lardaceous kidneys often showed the reaction, but casts in other forms of diseased kidneys, especially in acute desquamative nephritis, gave sometimes a precisely similar reaction. The aniline violet test clearly distinguished the latter from lardaceous casts in the way already indicated. The aniline test, too, left the tissues much more intact than iodine, which had a destroying action. The second difficulty he would refer to was whether the lardaceous material was an infiltration or a degeneration. The infiltration theory was started by Rindfleisch, from the fact that the small arterioles and the adjoining parts were first affected, as in the spleen and kidneys. But there were certain objections to the theory of infiltration. Thus the course followed by the disease was sometimes curious, a few localised muscle cells, for instance, being sometimes picked out and affected, the adjoining parts being healthy. Sometimes, again, only a few vessels were affected in one organ, or part of an organ, while the disease was generally pronounced elsewhere. If it be an infiltration, why should it not be always general? Why should it not be also found in such tissues as bone and skin? He thought that in its reactions and distribution, functionally active parts at the ends of vessels being usually first affected, it showed a closer resemblance to a degeneration than to an infiltration. If it be an infiltration, where is the material formed—at the seat of suppuration, or in the blood? He merely suggested these points to elicit explanations from Dr. Dickinson. As to the relationship of syphilis to the disease, he had seen it well marked in both congenital and acquired syphilis, where there had not been antecedent suppuration, as far as was known. The loss of potash from the system would hardly explain such cases, and even in cases of extensive suppuration there were other important losses, notably that of the white corpuscles of the blood, which might have as much to do with the production of the disease as the drain of the alkali. And syphilis was known to have a peculiar action on the white corpuscles. The fact that casts giving the lardaceous reaction were sometimes found in non-lardaceous kidneys might possibly be accounted for by their long exposure to acid urine. This would point to a theory that lardaceous matter was a low form of albuminous material produced by de-alkalised blood. He was inclined to adhere to the degeneration, in preference to the infiltration, theory, in the absence of better proof for the latter. Finally, though lardaceous material was persistent and durable, yet there was often found a tendency to its fatty degeneration in the kidney and liver, the latter sometimes showing even calcareous change.

Dr. Pye-Smith said the present discussion was practically still on Dr. Dickinson's paper twelve years ago in the *Transactions of the Medical and Chirurgical Society*. In regard to the action of acids on fibrin, as in producing casts giving the lardaceous reactions, this artificial material was probably not the same as the natural lardaceous product, but rather syntonin, or one of the forms of acid-albumen. Syntonin differed from true lardaceous matter in being soluble in weak acids and in being digestible. As Dr. Dickinson had shown at last meeting, potash caused the disappearance of the iodine staining. But that result was probably due to the chemical action of potash on the iodine, forming the colourless iodide of potassium, and not to the effect of the potash on the tissue itself. As to the iodine test, he agreed with Dr. Greenfield in regarding it as unsatisfactory, though it was useful as a rough-and-ready process. We ought to hesitate before admitting a mere colour change as decisive. In trying the action of iodine on lardaceous material, syntonin, and allied substances, a striking feature was the great variety in the tint of colouration from pale yellow to deep mahogany; and the mere fact that iodine stained so many materials was against its value as a distinctive reagent. As to the nature of the lardaceous material, was it really de-alkalised fibrin, as suggested by Dr. Dickinson? In suppuration there was certainly a great waste of potash, but there was also the very important loss of white corpuscles and of phosphates, and it was reasonable that the drain of these had as much, if not more, to do with the result as the drain of potash. Again, could we accept the view that the material was fibrin changed in the blood, and infiltrated into the tissues? The material had been subjected to analysis several times, and its constitution was pretty accurately known. Kühne had isolated it by digesting away the other materials around it. These analyses seem to point out that lardaceous material is quite different from coagulable lymph or fibrin. Again, there was pyrexia when a true exudation of fibrin took place, but no inflammatory phenomena attended this assumed deposition of lardaceous material. It was also found in the interior of epithelial and muscle cells, into which it was difficult to believe it was infiltrated. For these reasons he would still hold with Rokitansky that lardaceous material was the result of a degeneration, and not of an infiltration or exudation.

Sir Joseph Fayrer had seen cases of lardaceous disease in the subjects of malarial cachexia where there had been no antecedent suppuration. There was a disease called "hill-diarrhœa" common in India, characterised by atrophy of the intestines, which were often of a waxy appearance, and gave the larcaceous reaction with iodine. It was further found that the subjects of this disease occasionally recovered considerably on returning to a temperate climate. The sea-air certainly seemed beneficial.

Dr. Goodhart called attention to a paper by Dr. Hilton Fagge, published two years ago in the Society's *Transactions*, giving some statistics regarding the cases of lardaceous disease found in the post-mortem room of Guy's Hospital. The paper had primary reference to the subject of syphilis, but it appeared from it that in twenty years there had been 244 cases of lardaceous disease, of which 154 were due to suppuration without syphilis, and seventy-six were ascribed to syphilis. Of the latter, thirty-four were found to have had bone disease or suppuration, leaving forty-two cases presumably due to syphilis *per se*. The report did not distinguish cases in which the lardaceous change was general from slight forms of the malady. He himself had taken out 100 consecutive cases in the *Guy's Hospital Reports*, and in the vast majority the disease was general. At first the disease might pick out only one or two sites, but in advanced cases it probably became general. As regarded the interval that elapsed between the first action of the determinating condition and the production of the lardaceous change, he had found a few cases showing a definite local origin in suppuration at a known period. One patient had had a carbuncle for eight months; another had pelvic cellulitis for the same period; a third had a bedsore for seven months; a fourth had a sarcoma, which had been ulcerating and discharging for five months. Another case, in which the lardaceous change was commencing in the liver and spleen, died three months and a half after amputation of the leg for compound fracture, with suppuration. The rapidity of the development of the disease might depend, to some extent, on the presence and degree of *fever*, and this might be connected with its frequency in hot climates. As to retrograde changes, the material certainly sometimes underwent fatty and calcareous metamorphosis. He also, like the previous speakers, had doubts as to the reliability of the iodine reaction. It was unsatisfactory when the disease was not far advanced, and was also misleading in some cases where the microscope showed extensive lardaceous change.

Dr. Stephen Mackenzie referred to a peculiar degenerative change found in the arteries in certain acute fevers, as typhoid and scarlatina, and also in pyæmia and diabetes. It was first described by Klein, and he himself had found it. It consisted of a hyaline change, affecting the interior of the small arteries, as those of the spleen, just outside the endothelium. The new or changed material was only faintly stained by iodine; it was also stained reddish, but not markedly so, by methyl-aniline. Though this change was not lardaceous, it might be of interest in connexion with the pathology of lardaceous disease, especially in connexion with febrile conditions.

Dr. Dyce Duckworth mentioned some facts bearing on

the retrograde changes of lardaceous disease. One patient of St. Bartholomew's Hospital, with well-marked lardaceous enlargement of liver and spleen, had been under observation for three years, during which time the enlarged organs had shrunk to a much smaller bulk. Another case had been observed by Dr. Grainger Stewart for seventeen years, the liver and spleen becoming gradually smaller, so as to be little above the normal size at the end of that period.

The discussion was again adjourned, to be concluded at next meeting.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 8.

JOHN ERICHSEN, F.R.S., President, in the Chair.

DISCUSSION ON CROUP AND DIPHTHERIA.

AFTER the transaction of the routine business, the PRESIDENT indicated one or two points which he thought ought to be borne in mind by those who proposed to speak on the subject of croup and diphtheria. He requested each speaker either to adhere to the definitions laid down by the Committee—namely, that croup was a clinical term merely, whilst diphtheria was an anatomical term applied to a condition which might or might not be croupous. If they did not adopt this plan it was necessary for each one to define clearly the use of the language he employed. There were, however, beside the main question, many secondary points to be considered, such, for instance, as the etiology of diphtheria, its comparative frequency in rural districts, its peculiar sequelæ, and so on.

Mr. PARKER said: I regret that the debate this evening should not have been opened by some of the senior Fellows of the Society, many of whom I see are present. It is only their silence which emboldens me to rise. I should have expected that one or other would have rather taken exception to our proceedings in entering on the discussion of such a report as this. It will be in the recollection of the Fellows of the Society that about two years ago, after an interesting debate on diphtheria and croup (at which much divergence of opinion was expressed), the Council decided to refer the question to a Select Committee, and request them to report on it. It is this special report which we have now before us. Personally, I should have thought that it would have been more usual—as it would certainly have been less invidious—to have accepted the report, and to have thanked the Committee who framed it for the labour they had bestowed upon it. The report bears evidence of a great deal of thought, and it is as obviously the outcome of immense labour. I make these observations because, for my own part, I could have wished that such a report had been placed above and beyond all criticism; for I think it will be impossible to discuss it without criticising it—perhaps even severely. The Council, however, have decided to invite discussion, and I therefore crave permission to make a few observations; and if in addition to these observations I add a few criticisms, I hope it will not be considered presumptuous on my part, nor disrespectful to the individual members of the special Committee. I cannot refrain from expressing the satisfaction I felt on reading how briefly and yet how tersely "the object and scope of the inquiry" were defined. "The determination of the disputed question whether there is such a disease as 'idiopathic membranous croup'—*i.e.*, whether membranous laryngitis exists independently of the diphtheritic poison; and whether, if so, there are any criteria by which it can be distinguished clinically or pathologically." Here, however, I regret to say, much of my satisfaction ends. For on looking for a definite answer to this exceedingly definite question, I fail to find it; while in its place I find a summary of conclusions, which, viewed in the light of the direct question which was stated to be the object and scope of the inquiry, does not enable me to gather what views the Committee hold on this crucial point. This summary of conclusions is an excellent and exhaustive *resumé* of the views and doctrines which have been expressed by various authorities, and they are now amplified and authenticated by this Select Committee; but I submit that it does not solve the point which the Committee had in view at the outset of their labours. To my mind the summary suggests that the evidence before the Committee did not enable them to answer the question with a direct negative (and so pronounce in favour of the identity of croup and diphtheria), and it would have been wise, I think, to have categorically stated the fact, rather than to have published conclusions, which not only do not commit the Committee to any expression of opinion on this point, but which are sufficiently indefinite to allow each member of it to sign—although there is evidence, I think, in the report, that, at least on some points, they do not agree. As it now stands, "the object and scope of the inquiry" have not been attained, and, moreover, a summary of conclusions has been published, which can be used by either party in favour and support of their own peculiar views. Those who believe that the diseases croup and diphtheria are identical will be able to argue that the Committee declined to say that they were not identical; while those who still believe in a separate origin will be able to say that the Committee were unable to convince themselves that they have a common origin. Firmly believing in the etiological identity of croup and diphtheria, I may now pass on to the report, which, I venture to think, lends support to my view. In the investigation the following points have been taken up in order:—1. The known causes of membranous laryngitis, and their relative frequency. 2. The conditions of occurrence as regards association with other diseases, and as to climate, season, and general hygienic conditions. 3. The possible distinction between classes of cases from their symptoms, etc. I must content myself with but a very brief allusion to each of the headings, for it would require too much time to follow the report into each detail. Under the first heading (page 7 of the report), I find that the relative infrequency of a purely laryngeal form of diphtheria during epidemics of diphtheria, and the relative frequency of the laryngeal form in the cases which come under observation in the London hospitals, are points, which, in the opinion of the Committee, suggest "the probability that some other condition than contagious diphtheria has been concerned in the production of some of them." Of course the first question which suggests itself is, were all these cases of laryngeal disease *purely* laryngeal? Were the fauces and posterior nares well and carefully inspected? I am conscious in myself of having insufficiently examined into this point; for I had not previously thought it a matter of much importance, while it is nevertheless one of great difficulty as post-mortems are usually made, especially in very small children. In cases where I have looked especially, I have often found the posterior surface of the soft palate scattered over with membrane after death, when none had been visible on the fauces during life. I think also that the often rapidly fatal termination in many cases tends to our finding the membranes confined to the larynx: in other words, I believe that death occurs often before the disease has had time to develope or spread elsewhere. Under the second heading, the conditions of occurrence as regards association with other diseases are dealt with. The most interesting part of this evidence to me is the Committee's statement (at page 64) "that the zymotic and infectious diseases which specially affect the air-passages, as measles and whooping-cough, are especially liable to be complicated with croup." In other words, croup prevails at the same time that zymotic diseases prevail. The inference, to my mind, is obvious and natural—croup is also zymotic. The third and last heading is (*vide* pages 15 *et seq.*) the possible distinction between classes of cases as regards general course, symptoms, anatomical distribution of the false membrane, and its morbid anatomy and histology. On all these points the Committee do not give us any signs which are distinctive of, or peculiar to, either form of the disease. As regards sequelæ, this much must be admitted, that paralysis has never been known to follow membranous laryngitis. On the other hand, however, it is a very rare symptom, and its occurrence does not seem to depend in any way on the genuineness of the diphtheritic attack: many persons recover without presenting a vestige of paralysis. Indeed, the most typical case that has come under my own observation followed on what was to all appearances a simple sore throat. It occurred in a little boy, one of a large family; he played about with his brothers and sisters, and there was no sign of infectiousness of any kind. About three weeks after the sore throat, the paralysis showed itself, and only then was the "sore throat" said to have been "diphtheritic." Thus it will be seen that the distinctive points on which clinicians and pathologists have hitherto relied are now,

one by one, admitted to be fallacious and unreliable. Yet, as I have already said, I do not find whether the Committee believe the diseases (croup and diphtheria, respectively so-called) to be identical. Perhaps, however, I am doing the Committee an injustice; if so, I must plead the somewhat obscure language in which the crucial point is veiled.(a) [The points which I think are rather obscure are the following:—1. The "idiopathic membranous croup" (originally mentioned on page 3, and emphasised by inverted commas) is nowhere defined in the report in its relation to diphtheria, although this was "the object and scope of the inquiry." 2. On page 29 it is said that croup is "spontaneous." On page 32 it is said that croup may be due to diphtheria. Therefore diphtheria may be spontaneous. But diphtheria is a specific inflammation (page 30). Therefore a specific inflammation may be a spontaneous one. 3. Taking croup in the new signification proposed by the Committee (page 33), croup may be membranous; it may be diphtheritic. Croup may be non-membranous; it may be diphtheritic. Diphtheria (page 33) is a zymotic disease. Therefore croup (which may be membranous or non-membranous) may also be a zymotic disease—it having just been stated to be a spontaneous disease.] I will now say a few words on Dr. Hilton Fagge's tables (Appendix VI. of the report). He here alludes to some cases of diphtheria, which were tabulated in one of the recent volumes of the *Guy's Hospital Reports* as Class I. The cases, being purely pharyngeal, were, Dr. Fagge states, "beyond the aim of the investigations of the Committee." I venture to think, however, that they have a very important bearing on the general question. This Class I. includes twenty-two cases. Of the twenty-two cases, Dr. Fagge says, "only seven of them were undoubted cases of genuine diphtheria, admitted into the wards for that disease; eight of them arose by contagion in patients already in the hospital for some other complaint; the remaining seven were cases of diphtheria secondary to pyæmia or Bright's disease, or were altogether doubtful in their nature." Class IV. contained his cases in which membrane was "directly caused by local injury to the throat, or secondary to pre-existing disease of the larynx or trachea." The reports of the individual cases are too brief to enable me to judge in how many the scalding water was the *direct* cause of the membrane; in other words, in how many cases the membrane ought to have been called a slough, and not a "membrane" in the restricted sense in which we use it to-night. Be this as it may, I am content to argue as though all sixteen were cases of membranous laryngitis, following on, but not directly due to, injury. From these two classes of cases I should argue as follows. It is a significant fact that of twenty-two cases of diphtheria reported from Guy's Hospital, only seven should have been admitted as diphtheria; the remainder (fifteen cases) occurred within the hospital. It suggests to my mind that the atmosphere of Guy's Hospital is particularly favourable to the propagation and development of the diphtheritic poison. This view is strengthened and emphasised by the occurrence of these sixteen cases of traumatic "membranous laryngitis, with or without pharyngitis," tabulated as Class IV. It is an unusually large number of cases of injury to the throat, with subsequent deposit of false membranes, for any one hospital to count. It is much in excess of the London Hospital, for instance. Hence I cannot but attribute its occurrence to a special influence; and, in the light of the cases in Class I., I should not hesitate to call that special influence diphtheria. [The number of cases of traumatic membranous laryngitis which have been reported is, on the whole, very small indeed; and my own experience induces me very strongly to regard such membranous manifestations, when they do occur, as secondary complications, rather than as any direct or natural result of the injury. I should place them in the same category as hospitalism, pyæmia, erysipelas, and the typhoid condition. I believe they will be found to occur only in hospitals, or under other such like unsanitary conditions. Hospital patients, as is well known, are remarkably liable to contract specific diseases after accident, or after having undergone surgical operations, and that too without having been knowingly subjected to fresh or even recent contagion. Thus adults get erysipelas, and children not infrequently scarlet fever. It would seem as though any breach of surface favoured the inlet of the disease germs. In the light of Darwin's experiments on the effects of cross-fertilisation on animals and plants, it is just possible that the disease germs floating about in hospital wards acquire a special pre-potency in the presence of the surgical fever which generally follows operations or accidents, such surgical fever being an expression probably of sepsis (zymosis) to a greater or lesser degree. I think, too, such a theory as this explains how it is that certain cases of what appeared pure "croup" have developed into typical diphtheria, after a timely tracheotomy has averted immediate death. In consequence of the operation, I should argue, the mucous membrane of the trachea becomes inflamed, and the inflammatory exudations form a fertile soil in which the diphtheritic germs can develope and grow. It is this strong belief in the infective, as well as in the mechanical danger of false membranes, which has led me to attach great importance to their destruction and removal, whenever we are called to treat such cases. The cases of severe injury, such as those due to scalding water and corrosive fluids, I should place in a totally different category; for in these cases the inflammation is secondary (in point of time) to the membrane, and it is thus distinguished from the diphtheritic, for in the latter, we are told, the virus precedes and underlies the anatomical change. The same remark applies also to the eau de Cologne case, referred to on page 95 of the report. It is not necessary to inject such fluids as ammonia or alcohol into a living trachea in order to produce this result. One need only take a trachea in which there is plenty of mucus from the post-mortem table, and put it into spirit for a few days. A condition very similar (as I venture to think, identical) to this here described will then be produced.] It cannot be denied that cases vary very much in intensity among themselves, and, owing to the vital importance of the organ affected, the results of these variations are immensely striking. They have of themselves tended to exaggerate differences which, I have tried to argue, are more apparent than real, and which, occurring in all other diseases and to an equal extent, nevertheless strike us differently—perhaps because their results are less fatal. It seems to me we are more than ever brought face to face with the fact that croup (so called) prevails concurrently with admittedly zymotic diseases, either independently of them, or in connexion with them as complications—a fact which gives strong presumptive evidence in favour of a zymotic origin for "croup" also, though not necessarily an identical zymosis. There is just one other point in the Appendix (Digest of Replies) to which I would allude, and, in doing so, must claim Dr. Wilks's special indulgence. I allude to his interesting answers to the questions 8, 9, and 10, wherein, it seems to me, he goes to the very root of the matter. After having shown that we cannot restrict the question of croupous inflammation to a defined line at the termination of the trachea, Dr. Wilks (page 63 of the report, near the foot of the page) says—"It must be known that every pathologist in the world (I believe) has described two forms of idiopathic inflammation of the air-passages—the catarrhal, and the croupous or membranous,—and that every clinical physician has assented to this division. The new doctrine is an absolute denial of this, and that only one form, the catarrhal, exists; the other, the membranous, is due, it is said, to an extraneous cause." Elsewhere in the same paragraph Dr. Wilks says—"Although I am not wedded to any old opinion, I cannot but hesitate to hurriedly deny a doctrine universally held." But, I would ask, is the mere prevalence of an opinion any proof of its soundness? The late Sir George Cornewall Lewis, in his book on "The Influence of Authority in Matters of Opinion," tells us "there may be an excessive reverence for scientific doctrines handed down from a former age. . . ." For my own part, I do not hesitate to accept, and indeed to prefer, an "extraneous cause"—a zymosis, for instance—to the ambiguous "catching cold," which is usually set down as the source of these diseases. Niemeyer, in the 1863 edition of his work on Medicine, when speaking of croupous pneumonia, says—"The causes are mostly unknown. In certain seasons pneumonia prevails at the same time that croup, acute rheumatism, erysipelas, and other inflammatory affections also occur, and without the patient being knowingly subjected to noxious influences." In these days, when zymosis is playing such an important *rôle* in pathology (a *rôle* which the foremost thinkers of the day do not hesitate to attribute to it), I feel, in venturing to accept the pos-

(a) In order not to trespass too long on the Society, those portions of the remarks here inclosed within brackets [ ] were either omitted or given less fully.

sibility, nay, the great probability, of an "extraneous cause"—a zymosis—for all forms of "membranous inflammation of the air-passages," even for croupous pneumonia, that I am but humbly following in the lead and steps of my seniors and betters. I have long felt that "catching cold" was but a sorry mode of explaining the onset of the acute inflammatory processes. And as regards croupous pneumonia, I do not know of one single fact in its course which absolutely militates against such an etiological influence. On the other hand, I know of many facts which go far to support it, and even to suggest it. If such a cause should ever come to be commonly allowed, then Dr. Wilks's main objection to the identity of croup and diphtheria will lose all its force. In conclusion, I venture to believe that the logical outcome of this report is the identity of croup and diphtheria; and I respectfully submit that the *onus probandi* rests rather with those who would argue that they are not identical.

Dr. Bowles said that the previous speaker had laid stress on the fact that the Committee had not given a definite answer to the inquiry submitted to them. Here he thought that gentleman wrong, and the Committee right. No Committee should give utterance to an opinion such as that sought, except they were sure it was exact, and that could hardly be. The object of the Society was to stimulate inquiry, and this he thought the report did well. Mr. Parker assumed that wherever there was a little false membrane there must be diphtheria, but he could recall instances where false membrane was formed, but where there was no notion of diphtheria even when the tonsils were affected. Catarrhal affections were not entirely due to cold, and if local irritation of any kind can give rise to membranous croup, the same influences might surely produce membrane elsewhere.

(To be continued.)

OBITUARY.

Surg.-Major JOSEPH DOUGALL, M.D., F.R.C.P. Edin., Graduated at Edinburgh in 1858, was appointed to the Madras Medical Service, February 10, 1859. Served in China under Sir Hope Grant, 1860, and got the Chinese medal and clasp for Taku Forts. He served in various parts of India; and while Civil Surgeon at Vizagapatam, 1865, he operated successfully on seven or eight cases of elephantiasis scroti, removing tumours of twenty-three or twenty-four pounds weight. Being a first-rate amateur photographer, he took accurate pictures of these cases both before and after operating. In 1866 he undertook, at the request of Government, an investigation into the febrifuge properties of the cinchona alkaloids, cinchonin, quinidin, and cinchonidin, and, after six months' experience of the most malarious districts, gave in his report on 108 cases, very carefully tabulated, with the results as to the comparative value of these alkaloids, which report obtained the Gold Medal at Edinburgh University, 1872, on his graduation as M.D. He was in medical charge of the Political Agency at the Court of Burmah, 1869, and in 1873 was Senior Medical Officer, Andaman and Nicobar islands—a post of great importance and heavy work. Here he made his famous discovery of the treatment of leprosy with Gurjun oil, for which he received the special thanks of the Government of India. Reports of this successful treatment appeared in all the medical journals at home and abroad. He presented two skeletons of the Andamanese, a diminutive and little-known race, to Edinburgh University, and ten skeletons to the Royal College of Surgeons, London. Professor Flower has written a memoir on the osteology of this race, mainly founded on these specimens, which is about ready for presentation to the Anthropological Institute for publication. Dr. Dougall had just completed twenty years' service of the greatest usefulness when he was cut off by an attack of typhoid in the forty-eighth year of his age, at Port Blair, February 9, 1879. Even a stranger to him may appreciate his work and something of his worth, but only those who knew him personally can estimate the finer qualities of his character and the unselfish nobleness of his life."

ROBERT PERSSÉ WHITE, F.R.C.S.I.

We regret to announce the death of this estimable surgeon at the comparatively early age of forty-eight years. The melancholy event occurred early on Easter morning, April 13, at Mr. White's residence in Harcourt-street, Dublin. He had been in bad health for more than a year, but his fatal illness lasted only a few days, and in the end his death was somewhat sudden. In 1852, Mr. White became a Licentiate of the Royal College of Surgeons in Ireland, to the fellowship of which body he proceded in 1857. He also joined the King and Queen's College of Physicians in Ireland as a Licentiate in the year 1860. Early in his professional career Mr. White was elected a Surgeon to Jervis-street Hospital and Charitable Infirmary, an appointment which he resigned in 1868, on succeeding the late Mr. James H. Stronge as one of the Surgeons to the Meath Hospital and County Dublin Infirmary. Mr. White did not contribute much to the literature of his profession, but his opinion was essentially sound, and he was possessed of much skill as an operating surgeon. He ever took a deep interest in the "Smyley Memorial Ward" for children in the Meath Hospital, and in that ward he might often have been seen tending the little sufferers with gentleness and skill. His premature decease will be deplored by many sincere friends and well-wishers, and will be a sad loss to the two children who survive him—a son on the threshold of manhood, and a daughter who nursed him throughout his illness with untiring devotion.

BENJAMIN PARDON.

It is with exceeding regret that we have to announce the death of one who has been for a very long term of years connected with this journal. Benjamin Pardon, who had been the printer of this paper for thirty years, has just passed away, after a very long and painful illness. Mr. Pardon's life was exactly of the kind which makes no history. He was a native of Plymouth, but had long been resident in London. Here his character was that of a careful and upright man of business, noted for good and reliable work, such as might at all times be depended upon. For six-and-twenty years he had been a Guardian for the parish of St. Faith, and Vice-Chairman of the Central London District School Board almost from the time of its formation. Mr. Pardon leaves a grown-up family, and the business will be carried on by the two sons who have for some time taken an active share in it. Briefly, that is all we have to say of one whose life was passed apart from the turmoil which so often encompasses earthly greatness.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—At the usual monthly examinations for the licences of the College, held from Monday to Thursday, April 7-10, the following candidates were successful:—

For the First Professional Examination—

Foggo, Isabella M. H. J.

For the licence to practise Medicine—

Barton, James Robert.
Battersby, Henry Lewis.
Howard, Robert.
Mahony, William Aloysius.
Molony, Harry.
Mullen, John William.
Peyton, Andrew Dillon.
Rorke, Charles.
Wall, Henry Arthur.
Warnock, Robert.

For the licence to practise Midwifery—

Battersby, Henry Lewis.
Howard, Robert.
Mahony, William Aloysius.
Mullen, John William.
Rorke, Charles.

For the licence as a Midwife and Nurse-tender—

Noble, Helen Little.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 9th inst., and when eligible will be admitted to the pass examination:—

Anness, Frederick R., student of St. Thomas's Hospital.
Brooks, James, of St. Bartholomew's Hospital.
Brough, William A., of University College Hospital.
Burrows, Charles W. G., of Charing-cross Hospital.
Byers, John W., of the London Hospital.
Cook, Philip J., of St. Thomas's Hospital.
Davis, Edward, of the Middlesex Hospital.
Dobell, Edmund J., of University College Hospital.
East, Frederick W., of the London Hospital.
Falls, William C., of St. George's Hospital.

Hepburn, John, student of the Westminster Hospital.
Holt, William, of St. George's Hospital.
Maddison, William T., of King's College Hospital.
Newnham, Ernest E., of Charing-cross Hospital.
Prentice, Zachariah, of Guy's Hospital.

The following gentlemen passed on the 14th inst.:—

Aslett, G. Stratton, student of King's College Hospital.
Bartlett, Benjamin P., of Guy's Hospital.
Broom, Arthur R., of King's College Hospital.
Brown, Clarence W. H., of St. Thomas's Hospital.
Cahill, John, of St. George's Hospital.
Coveney, John, of the London Hospital.
Dendy, Walter C., of Guy's Hospital.
Duff, Charles H., of the Middlesex Hospital.
Giles, Oswald, of St. George's Hospital.
Griffiths, Philip R., of University College Hospital.
Harvey, Eldon, of St. Thomas's Hospital.
Hern, John, of St. Mary's Hospital.
Holroyde, John, of the London Hospital.
Ingoldby, Frederick J., of St. Mary's Hospital.
Kempster, William H., of the Westminster Hospital.
Massey, Henry M., of St. Thomas's Hospital.
Muriel, Cecil J., of St. Bartholomew's Hospital.
Openshaw, Thomas H., of the London Hospital.
O'Reilly, Archibald T., of University College Hospital.
Paterson, W. Bromfield, of St. Bartholomew's Hospital.
Price, William E., of the London Hospital.
Starling, W. Egerton, of Guy's Hospital
Strachan, William H. W., of Guy's Hospital.
Thistle, Frederick T., of St. Bartholomew's Hospital.
Tuke, C. Molesworth, of St. George's Hospital.
Woolbert, Henry R., of University College Hospital.

The following gentlemen passed on the 15th inst.:—

Barnes, W. Stanley, student of University College Hospital.
Booth, E. Hargrave, of Guy's Hospital.
Day, J. Robertson, of University College Hospital.
Dreaper, John B., of St. Thomas's Hospital.
Fell, Walter, of St. Thomas's Hospital.
Gaskin, Thomas L., of St. Bartholomew's Hospital.
Hall, Ben, of St. Bartholomew's Hospital.
Hingston, Richard, of the London Hospital.
Jackson, John W., of St. Mary's Hospital.
Jay, Melville R. H., of St. Thomas's Hospital.
Longman, Arthur, of St. Thomas's Hospital.
Marsden, Thomas, of St. Thomas's Hospital.
Mason, Arthur E., of St. Thomas's Hospital.
Morris, Sydney P., of University College Hospital.
Morton, Charles A., of St. Bartholomew's Hospital.
Mudge, Thomas, of St. Bartholomew's Hospital.
Pitt, G. Newton, of Guy's Hospital.
Rice, Bernard, of St. Bartholomew's Hospital.
Roberts, G. Norman, of St. George's Hospital.
Roberts, R. Pritchard, of University College Hospital.
Rout, Charles, of Charing-cross Hospital.
Russell, J. Hutchison, of the London Hospital.
Sloggett, H. Maxwell, of King's College Hospital.
Square, James E., of St. Bartholomew's Hospital.
Thane, P. Thornton, of the Middlesex Hospital.

The following gentlemen passed on the 16th inst.:—

Alexander, Fred. W., student of St. Bartholomew's Hospital.
Boobbyer, Philip, of King's College Hospital.
Colville, Ernest G., of St. Bartholomew's Hospital.
Cooper, George F., of St. Thomas's Hospital.
Cotes, Charles E. H., of St. George's Hospital.
Dancy, Horace M., of University College Hospital.
Dowson, John, of Guy's Hospital.
Eminson, Thomas B. F., of St. Mary's Hospital.
Evans, C. Sylvester, of St. Thomas's Hospital.
Field, James W., of St. Bartholomew's Hospital.
Jones, W. Wansbrough, of St. Thomas's Hospital.
Quick, Frank, of University College Hospital.
Robinson, Wilford E., of St. George's Hospital.
Roper, Arthur C., of St. Bartholomew's Hospital.
Scott, Bernard, of Guy's Hospital.
Stoddart, F. Wallis, of St. Thomas's Hospital.
Todd, Charles E., of St. George's Hospital.
Warner, Percy, of Guy's Hospital.
Waugh, H. Dunn, of University College Hospital.
Webster, George L., of King's College Hospital.
Wells, Alfred E., of St. Thomas's Hospital.
West, John A., of King's College Hospital.
Williams, Charles, of the Middlesex Hospital.
Willis, A. Keith, of St. George's Hospital.
Wood, Neville T., of St. George's Hospital.

The *primary* examination of the 213 candidates was brought to a close on Thursday. The *pass* examination commences this day (Friday).

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 10:—

Bell, Frank Kingan, Birmingham.
Crooke, George Frederick, Gainsborough.
Henne, Walter Augustus, Hounslow.
Lowes, Septimus, Newcastle-on-Tyne.
Mannell, Zebulon, Shepherd's-bush.
Silk, John Frederick William, Graverend.
Tabb, John Frederick, Herne-hill.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Legg, William Heneage, Westminster Hospital.
Palmer, William Pitt, St. Bartholomew's Hospital.
Thompson, Charles Emilius, Middlesex Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

HAYWARD, J. R. S., M.D., M.R.C.S.E.—Surgeon to the St. John's-wood and Portland Town Provident Dispensary, *vice* W. H. Evans, resigned.

ROBINSON, Miss, of the Peterborough Infirmary—Matron to the Devon and Exeter Hospital, *vice* Mrs. Ravenhill, resigned.

STORRY, F. W., M.R.C.S.—House-Surgeon to the Stroud General Hospital.

WILLCOCKS, F., M.B. Lond., M.R.C.S.E.—Resident Medical Officer at the Public Dispensary, Stanhope-street, Clare-market.

BIRTHS.

NEWMAN.—On April 9, at Barn Hill House, Stamford, the wife of William Newman, M.D. Lond., of a son.

MATHESON.—On April 12, at 4, Granville-place, Portman-square, the wife of Duncan Matheson, L.R.C.P. Edin., of a daughter.

WALLACE.—On April 8, at 243, Hackney-road, the wife of Frederick Wallace, L.R.C.P. Lond., of a son.

WATERWORTH.—On April 15, at 221, New Kent-road, the wife of T. H. Waterworth, M.D., of a son.

MARRIAGES.

BEHRENDT—CHARLTON.—On April 13, at Althorpe, Lincolnshire, Maximilian R. J. Behrendt, L.R.C.P., etc., of Burringham, to Elizabeth Amelia, second daughter of the Rev. R. Charlton, Rector of Althorpe.

OVEY—ROBERTSON.—On April 15, at St. Peter's Church, Notting-hill, Henry, youngest son of the late Richard Ovey, of Avenue-road, Regent's-park, to Emma Blanche, only daughter of W. Tindal Robertson, M.D., of Paston House, Brighton.

DEATHS.

ATTWOOD, FREDERICK LYNDON, M.R.C.S., of Carlton-chambers, Regent-street, and Downing College, Cambridge, on April 10.

FLEISCHMANN, ALFRED, M.D., at Florence, Italy, on April 10, aged 43.

GASKELL, MARGARET LUCY, eldest child of Walter Holbrook Gaskell, M.D., at Grantchester, near Cambridge, on April 8, aged two years.

LACEY, EGBERT CHARLTON, son of John Lacey, M.R.C.S. Eng., of London, at Longleat House, Forest-hill, on April 12, in his 20th year.

MARTYN, R. W., M.R.C.S. Eng., at Martock, Somerset, on April 11, in his 87th year.

PRICE, ALLIN FOORD, M.D., at Deptford, on April 14, in his 76th year.

SPENCE, ROBERT, M.D., Queensland Emigration Department, medical officer in charge of the ship *Dunbar Castle*, bound for Brisbane, at sea, on August 25, 1878, aged 36.

STEUART, ROGER ST. CLAIR, M.D., younger son of the late R. Steuart, of Carfin and Westwood, at Wadhurst, on April 6, aged 28.

STUART, WILLIAM, M.D., at 59, King-street, Woolwich, on April 13, aged 67.

WALTER, JANE, wife of O. C. Walter, M.R.C.S. Eng., at Broadstairs, Thanet, on April 8, in her 66th year.

WILTON, GERALD DE, M.D., Surgeon-Major Madras Staff Corps, at Madras, on March 3, aged 48.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials as to character and ability, to Hugh Mason, Esq., Ashton-under-Lyne, on or before May 3. Applicants to state age.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Surgical Registrar. Candidates must be qualified to practise under the Medical Registration Act. Applications to the Medical Committee, on or before April 25.

DUDLEY DISPENSARY.—Resident Medical Officer. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, and hold a medical and surgical diploma and be registered. Applications, with testimonials, to the Hon. Secretary, Russells Hall, Dudley, on or before April 26.

NOTTINGHAM DISPENSARY.—Assistant Resident Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons, England, Edinburgh, or Dublin, or of the Faculty of Glasgow, and Licentiates of the Royal College of Physicians at London, Edinburgh, or Dublin, or Licentiates of the Apothecaries' Company, and duly registered. Testimonials to the Committee at the Dispensary, on or before May 5.

QUEEN'S COLLEGE, BIRMINGHAM.—Medical Tutor. Applications, with testimonials, to the Secretary, Mr. Joseph Lewis, 21, Paradise-street, on or before April 28.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Physician for the Diseases of Women, and an Ophthalmic Surgeon. The Physician must be a Fellow or Member of the Royal College of Physicians of London; and the Surgeon a Member of the Royal College of Surgeons of England. Both gentlemen will be required to give clinical instruction to the students of the London School of Medicine for Women. Applications, with testimonials, to the Secretary, on or before April 30.

SAINT BARTHOLOMEW'S HOSPITAL, CHATHAM.—Assistant House-Surgeon. Candidates must be registered medical practitioners. Applications, stating age, with testimonials, to the Clerk to the Trustees, on or before May 12.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, LOWER SEYMOUR-STREET, PORTMAN-SQUARE.—Physician to the Out-patient Department. Candidates must be graduates of a British university, or if graduates of a foreign university, Members of the Royal College of Physicians of England, duly registered as such and not practising pharmacy. Applications, with testimonials, to the Secretary, not later than April 29.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population in computed according to the census of 1871.

RESIGNATIONS.

Battle Union.—Mr. W. C. Blaker has resigned the Fifth District; area 4320; population 641; salary £25 per annum.

Coventry Union.—Mr. J. G. Overton has resigned the Third District; salary £63 per annum.

East Ward Union.—Mr. Wm. Mutch has resigned the Orton District; area 25,000; population 1665; salary £20 per annum.

Edmonton Union.—The First District is vacant; salary £55 per annum. Also the Workhouse; salary £70 per annum.

Lichfield Union.—Mr. A. C. Morgan has resigned the St. Mary District; salary £40 per annum.

Peterborough Union.—Mr. William Thomson has resigned the Farcet District; area 14,763; population 5354; salary, fee per case.

Tenhurst Union.—Mr. W. C. Blaker has resigned the Robertsbridge District; area 6421; population 2090; salary £40 per annum.

Westbury-on-Severn Union.—Mr. John Stratford Collins has resigned the Second District; area 10,320; population 5520; salary £95 per annum.

APPOINTMENTS.

Carlisle.—Thos. H. Walker, L.R.C.P., L.R.C.S., L.S.A., as Analyst for the City.

Chesterton Union.—Wm. R. Roper, L.R.C.P. Edin., L.F.P.&S. Glasg. L.S.A., to the Fifth District.

Crediton Union.—Henry Ryley, L.R.C.P. Lond., L.R.C.P. Edin., L.S.A., to the Cheriton Fitzpaine District.

Docking Union.—Mr. George Hales Parry, L.R.C.P. and Lic. in Midwifery Edin., M.R.C.S. Eng., and L.S.A. Lond., to the Snettisham District.

Tenhurst Union.—Mr. Henry Harland, M.D. St. Andrews, M.R.C.S. and L.S.A. Lond., to the Wadhurst District.

Uppingham Union.—David Duke, M.R.C.S. Eng., L.S.A., to the Great Easton District.

West Ham Union.—Mr. Charles Joseph Stocker, L.R.C.P., M.R.C.S., and L.S.A. Lond., to the East Ham and Little Ilford District.

MR. W. F. TERVAN, B.A., F.R.C.S., has been appointed Lettsomian Lecturer by the Council of the Medical Society of London.

AT the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 8th inst., Dr. H. J. Domville, C.B., Inspector-General, in the chair, the sum of £70 was distributed among the various claimants.

A NOVEL USE FOR WINE.—The *Sanitary Record* states that the late Sir Walter Trevelyan has left his cellar of wines to Dr. Benjamin Ward Richardson "for scientific purposes." Our contemporary goes on to say—"It is rumoured that the eminent apostle of total abstinence contemplates carrying out the intention of the bequest by selling the wines, which are estimated to realise at least £4000, and founding a model hospital with the proceeds."

LITHOTOMY IN RUSSIA.—Dr. Betetow, Surgeon of the Kazan Hospital, states that urinary calculus is of frequent occurrence in Eastern and Central Russia, so that in the course of thirty years he has treated 275 patients. Almost all the calculi consist of oxalate of lime with uric acid as the nucleus. He attributes this great frequency of the oxalate calculi to the large quantities of an acid drink, termed *kwass*, taken by the population, and also to their diet being almost exclusively vegetable. When the patients are young, Dr. Betetow adopts in most cases lateral lithotomy, taking care the incision shall not be very extensive. When the calculus is very large, he first breaks it up, and on the same day removes it by lithotomy. He reports the slight mortality of 4·36 per cent.—*Gas. Med. Lombardia*, April 5.

NEW EDITION OF LAENNEC'S "TRAITÉ D'AUSCULTATION."—Prof. Lasègue announced to the Académie de Médecine that M. Asselin will publish, at the end of this month, a reprint of Laennec's "Traité d'Auscultation." The different editions of this grand work, so perfect that the progress of science has since its appearance only introduced some insignificant modifications of detail, have been long since exhausted. A reprint was therefore necessary for the honour of French medical science, which could not allow one of its most magnificent monuments thus to be lost, as also for the instruction of new generations, whose Pharos and guide the immortal inventor of auscultation will continue to be. M. Bardoux, the late Minister of Public Instruction, appreciated this necessity, and provided the funds necessary for the undertaking, confiding the surveillance of the reprinting to Prof. Lasègue. One hundred copies, luxuriously edited, were placed at the disposal of members of the Academy, and they were all immediately subscribed for.

THE POISONED VALET.—King Louis Philippe was, it seems, in the habit of physicking himself on the last day of each month, and on the evening before had brought to him a basin of cold broth, in which he mixed his castor oil *secundum artem* ready for the early morning. In the middle of one night some one attached to the palace rushed consternated into the post at the Tuileries, which in those days was occupied by the National Guard, exclaiming, "Is there a doctor here?" "I am a doctor," replied the captain of the post. "Oh, doctor, an attempt has been made to poison the King, and a servant who drank the potion prepared for his Majesty is now dying amidst excruciating tortures." "Take me to him, and awaken the King." On the doctor being taken to the bedside of the unfortunate valet, the latter, on seeing the captain, cried out for mercy, and a priest." The King arrived almost immediately, and the case was explained to him. "Pardon me, sire," exclaimed the dying man, "it is I who drank the fatal poison, but I have saved the King's life. Oh, sire, do not forget my wife and orphans." "*Gourmand*," exclaimed the King, smiling, "you will do very well. It was most excellent castor oil you swallowed, and you must let me know how it acted."—*Union Méd.*, March 22.

A CORRESPONDENT writes as follows:—"The disaster to the 10th Hussars has given rise to a discussion in the *Times* on the best way of swimming horses across rivers. The writers advocate various plans, the great object, it appears, being to allow the man to be towed by the horse, without exposing himself to the danger of being kicked by the animal's hind-legs. One writer advocates slipping from the saddle on the *near* side, and grasping the horse's mane. Another grasps the mane, but slips from his saddle on the *off* side; while a third advises the rider to hold on to his horse's tail, *provided his tail is long enough*. By any of these proceedings it appears that a man may safely be dragged along either on his back or belly, as he may prefer, and be enabled to carry his revolver in his mouth clear of the water. It is not a matter exactly at first sight for the expression of medical opinion. Army doctors hate the very sound of horses, since their horse allowance has been tampered with; and now that there are very few Army doctors left, the naval surgeons who do duty with troops can hardly be credited with a knowledge of equitation. Still, when we find in the *Times* of the 8th a writer making the astounding statement *that horses always swim on their right sides*, it is almost necessary for every medical man to exclaim! The writer in the *Times* says—'When a dragoon is called upon to cross a deep river, knowing that a horse turns upon its right side to swim, etc.' As a comparative anatomist I know nothing of the kind, and, unless dragoon horses are a special race, I don't believe that any horse practises the side-stroke in swimming. Every land animal obliged to take the water tries to keep its nostrils clear, and how it can do so by 'fancy swimming' puzzles me. I may be wrong, but I should like to be told how, and why. For if the dragoon is right it is clearly no use whatever to try and be towed on the near side of the horse, and I'm not sure even about the position of the tail."

ANURIA FROM RENAL CALCULUS.—In relation to a case of anuria transcribed in the *Medical Times and Gazette* March 22, p. 326), Dr. Carrère furnishes a similar one (*Gas. Hebd.*, March 28) which occurred in his practice in 1866. The subject was a notary, who for some years had been liable to nephritic colic, attended with the passage of renal calculi. On April 2 he was seized with one of these attacks accompanied by vomiting and a cessation of the passage of urine. This state of things continued until April 10, when the patient seemed at the worst, an enormous tumour occupying the regions of both kidneys, and all the symptoms of uræmia being present. Under the idea that contraction of the muscular fibres of the ureters might be produced with removal of the obstruction to the flow of urine, not a drop of which had entered the bladder during eight days, ergot of rye was given, and in an hour (during which two grammes had been given) urine was abundantly discharged, and a calculus the size and shape of an oat-grain was expelled. In a few hours eight litres and a half of limpid urine was discharged, the patient recovering rapidly. Dr. Carrère suggests that one ureter was obstructed by this the only calculus that was discharged, the functions of the other being suppressed by sympathy.

SHEPHERD MEMORIAL FUND.—The numerous friends of the late Surgeon-Major Peter Shepherd, who was killed in the performance of his duty at Isandula, Zululand, on January 22, 1879, consider it desirable by public testimony to record their estimation of his worth, and it has been decided to perpetuate his memory by a suitable monument. Marischal College, Aberdeen, where he studied and received his medical education, is thought the most appropriate place for the erection of a fitting memorial of this kind. The following friends have formed themselves into a committee for the furtherance of this purpose:—General Committee—General Lord Templetown, K.C.B., Honorary President; Dr. W. Aitken, F.R.S., Army Medical School; G. Anderson, Esq., Deputy Inspector-General of Hospitals; J. Keith Angus, Esq.; Dr. Barry, Divisional Surgeon, Metropolitan Police; H. G. Bevington, Esq.; Lieut.-Colonel W. Lloyd Browne, 5th Lancers; J. H. Casson, Esq., F.R.C.S.; Captain L. M. Carmichael, Deputy A.Q.M.G.; Lieutenant-Colonel W. Chaine; C. Clay, Esq., Whitchurch, Salop; Professor A. D. Davidson, University of Aberdeen; Colonel H. G. Deedes, War Office; Vicount Duprat; Colonel J. H. Dunne, 28th Sub-district; Major F. Duncan, R.A., LL.D.; Dr. R. Farquharson, Finzean; Sir William Forbes, Bart., Craigievar; J. O. Forbes, Esq., Corse; Duncan Forbes, Esq.; John Furley, Esq.; Colonel J. H. Gammell; Captain F. Gooch; Surgeon-General J. McGrigor Grant, M.D.; Captain W. C. Harris, Assistant-Commissioner, Metropolitan Police; Dr. James Jopp, Deputy Inspector-General of Hospitals; Colonel A. H. King, R.A. A.Q.M.G., Woolwich; R. Lawson, Esq., Inspector-General of Hospitals; Sir E. Lechmere, Bart., M.P.; Sir T. Galbraith Logan, K.C.B.; Surgeon-General T. Longmore; C.B.; Cosmo Gordon Logie, Esq., M.D., late Royal Horse Guards; Dr. W. C. Maclean, C.B., Army Medical School, Deputy Surgeon-General W. A. Mackinnon, C.B.; Brigadier General W. G. Dunham Massey; Colonel A. G. Montgomery Moore, 4th Hussars; H. W. Page, Esq., F.R.C.S.; A. Harford Pearson, B.C.L.; Captain H. C. Perrott, E.K.M.; Surgeon-Major E. H. Roberts; General Sir John St. George, K.C.B., R.A.; Dr. Sieveking, Physician Extraordinary to the Queen; Deputy Surgeon-General Small; Deputy Surgeon-General Snell; Colonel W. N. Waller, R.A.; Dr. J. H. Waters, Divisional Surgeon, Metropolitan Police; Colonel Gould Weston, F.S.A.; Rev. J. B. Wilkinson, M.A. An Executive Committee has been appointed to carry out all necessary arrangements. Executive Committee: Major F. Duncan, R.A., President; Dr. Robert Farquharson, late Coldstream Guards; J. Keith Angus, Esq.; Captain L. Carmichael, Deputy A.Q.M.G.; Deputy Surgeon-General W. Snell. Honorary Secretary and Treasurer, W. Snell, Esq. The Committee are of opinion that the contributions should not exceed 10s. 6d. for each subscriber. Messrs. Cox and Co., Craig's-court, S.W. (H.P.D.), have kindly consented to receive subscriptions. Subscriptions will also be received by the Honorary Secretary and Treasurer. Inquiries and communications to be addressed to W. Snell, Esq., Army and Navy Club, S.W.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. de Lisle.—Received with thanks.

The Artisans', Labourers', and General Dwellings Company.—At the twelfth annual general meeting of this Company which was recently held, the Chairman, in moving the adoption of the report, stated that the last twelve months had been much less eventful than the preceding year. The report, taken as a whole, was far from unsatisfactory. The erection of forty-eight houses on the Shaftesbury Park estate had been tendered for, as a means of testing whether the system of building houses adopted by the Company was or was not cheaper than could be done by professional builders. The Company had, however, been doing the work cheaper than was shown by the tenders received from the builders. A successful future was anticipated for the Association.

Inquisitive.—About £1800 has been subscribed for the Harvey Tercentenary Memorial, and £200 more will be required.

Abolishing Public-house Licences.—The Town Council of Sheffield have resolved, by seventeen to twenty-six votes, to abolish the licences of six public-houses. These licences had been acquired in the purchase of property for street improvements. Their estimated value was from £3000 to £6000.

The Sanitary Inspector a "Prejudiced Purchaser."—In the case of a licensed victualler of Little Marylebone-street, who was summoned under the Adulteration Act for selling to the sanitary inspector a pint of gin which was 35 per cent. under proof, Mr. De Rutsen decided that the officer who purchased the gin was a prejudiced person within the meaning of the Act, and although the gin was of the cheapest kind, he held that it was adulterated, no notice having been given to the purchaser that it had been diluted. The defendant was fined 40s. and costs.

Gratuitous Dinner-cooking.—The Gas Company at Coventry has, it is stated, taken premises in a central part of the city, and made the requisite arrangements for cooking a number of dinners daily by gas. The consumers of their gas are invited to send their dinners to the Company's kitchen to be cooked, at the same time intimating that no charge will be made. The proposal at least deserves, and will no doubt receive, the grateful recognition of those to whom the Company offer this economical and considerate domestic advantage.

"Mistaken Identity."—A case of mistaken identity, involving considerable personal annoyance and inconvenience, was heard at the Guildhall Police-court a few days since. The publisher of a City newspaper was charged with "wilfully disturbing the inhabitants of the dwelling-house of the Governor of Newgate by ringing the bell." Between three and four in the morning a policeman "followed him sharply," and he was taken into custody by another policeman near Newgate-street, who deposed that he had previously seen him knocking at the door of a public-house in Ludgate-circus, and knocking at a door on Ludgate-hill. The defendant, it appeared in evidence, was on the way to his office from Pimlico, he had not been on Ludgate-hill, and the offence of which he was charged must have been committed by some other person or persons who were going in the same direction. The magistrate at once discharged the accused, who had, albeit, been locked up in a police-cell for some hours, bail being arbitrarily refused after the police knew who he was. In these cases of "mistakes," the police, and especially the night sergeant in attendance, should exercise great caution and discretion.

Public Requisites.—The Surrey magistrates have adopted by-laws for the regulation of bicycle and locomotive traffic on highways. They have also resolved upon adding a recreation-hall to Wandsworth Lunatic Asylum, and making other alterations, at a cost of £42,000.

The Summer in Australia.—The *Melbourne Argus* of February 21 states—"The weather we have had during the past month has been something terrific. We find the thermometer at the Observatory, on January 29, showed 106° in the shade and 146° in the sun. This is comparatively cool to what it is said to have been at Yarrawonga, a small township on the River Murray, where it is stated to have been 126° in the shade on the hottest day we have had. Owing to the intense heat of the weather, deaths from sunstroke have occurred in various parts of the colony."

Sir A. D. Home.—According to the *Broad Arrow*, it has been decided to recall Sir A. D. Home from Cyprus, as the great reduction which has taken place in the garrison of the island is considered to do away with the necessity for a medical officer of his rank there. Sir A. D. Home's return may be taken to confirm the rumour that he is to resume his place at the head of the Statistical Branch, Army Medical Department, in succession to Surgeon-General J. M. S. Fogo, who proceeded to India on promotion.

Rural Sanitary Works.—The dispute between the Board of Trade and the Corporation of Beaumaris as to the foreshore rights continues to delay the carrying out of the new system of drainage. The Local Government Board refuse to sanction the loan required for the execution of the works until the approval of the Board of Trade is obtained. The Corporation claim the foreshore rights under their old charter. After considerable agitation and application to Parliament the Nottingham Corporation have obtained possession of the Water Company's works.

A Sanitary Improvement, Paris.—The clearance by the Municipality of Paris of a spot called the Cité Elisa Borey, which covered about two acres of ground upon the borders of Belleville and Ménilmontant, has removed a disgusting and filthy den. The dwellings upon this ground were used by rag-pickers and ambulant merchants, who dwelt there, and lived in hovels which could not by any means be called houses. Many of them had simply burrowed underground like rabbits. The sanitary condition of the inhabitants of this "Cité," so named after the lady to whom the land belonged, and who obtained high rents for it, was something shocking, and it was the very high rate of mortality, even more than the scenes of disorder constantly occurring there, which induced the Municipal Council to take steps to improve it out of existence. A new street has now been driven through the centre—in fact, a boulevard, with trees planted on either side.

Brewers and Victuallers.—During the year ended September 30 last, 2673 licences were issued to common brewers in the United Kingdom, not being victuallers or retail beer-sellers; 99,287 to victuallers, and in England only, 46,590 licences to sell beer. Of the brewers' licences, 80 were issued in Scotland, and 59 in Ireland; and of the victuallers' licences, 12,385 in Scotland, and 16,888 in Ireland. Licences were also granted in England to 13,995, in Scotland to 98, and in Ireland to 4 victuallers; and beer licences in England only to 6839 persons who brew their own beer.

COMMUNICATIONS have been received from—

Dr. J. Balmanno Squire, London; Mr. John Chatto, London; Mr. W. E. Poole, London; Dr. G. B. Herman, London; Dr. J. R. Wolfe, London; Mr. D. Colquhoun, London; Dr. George Thin, London; Mr. R. W. Parker, London; Dr. J. Pearson Irvine, London; Dr. Stephen Mackenzie, London; Mr. T. M. Stone, London; Mr. B. R. Wheatley, London; The Honorary Secretary of the Clinical Society; Dr. Sparks, Mentone; Mr. William Thornton, Melbourne; Mr. J. E. Ingpen, London; Dr. Norman Chevers, London; Dr. J. W. Moore, Dublin; Dr. Carter, Liverpool; Mr. J. T. W. Bacot, Seaton; Mr. R. C. Lucas, London; Mr. W. F. Trevan, London; The Honorary Secretary of the Association of Surgeons Practising Dental Surgery; The Registrar-General, Edinburgh; Mr. George Turner, Portsmouth; Messrs. Bowdler and Bickerdike, Accrington; Dr. A. M. Buchanan, Glasgow; Dr. J. Mason, Nottingham; Mr. William Dougall, Edinburgh; The Honorary Secretary of the Society of Medical Officers of Health; Dr. Frederick Taylor, London; The Secretary of the Naval Medical Compassionate Fund; Mr. W. F. Jebb, London; The Registrar of Apothecaries' Hall, London; Surgeon-Major F. R. Hogg, Netley.

BOOKS AND PAMPHLETS RECEIVED—

William Allingham, F.R.C.S. Eng., On Diseases of the Rectum—Professor Rudolph Virchow, Infection; Diseases in the Army—G. Ernest Herman, M.R.C.P. Lond., On the Treatment of Pregnancy complicated with Cancerous Disease of the Genital Canal.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Canadian Journal of Medical Science—Journal of Psychological Medicine—Dublin Journal of Medical Science—Vaccination Inquirer—Practitioner—Archives of Medicine—Révue des Sciences Médicales—Révue d'Hygiène—New York Medical Journal—American Practitioner—El Siglo Médico—Canada Lancet—Practitioner—Index Medicus—North Carolina Medical Journal—Students' Journal and Hospital Gazette—Westminster Review.

APPOINTMENTS FOR THE WEEK.

April 19. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

21. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. G. C. Coles will exhibit some Improved Temperature Charts. Dr. Routh, "On the Employment of a New Powder for Antiseptic and Preservative Purposes." Dr. Churton (of Leeds), "On the Treatment of certain Phases and Results of Typhoid Fever." Dr. Cockle, "Clinical Cases."

22. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Mr. Ernst Pauer, "On Schubert." (With Musical Illustrations.)

Royal Medical and Chirurgical Society, 8½ p.m. Adjourned Discussion on the Report of the Committee on Croup and Diphtheria.

23. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Hunterian Society (London Institution), 8 p.m. Dr. Warner, "On Headache in Children."

24. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Dewar, "On Dissociation."

25. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m. Dr. Semon, "On the question of Tracheotomy in Bilateral Paralysis of the Posterior Crico-Arytenoid Muscles" (patient to be exhibited). Dr. Tilbury Fox, "A Case of Lichen Scrophulosorum." Mr. Morrant Baker, "Removal by operation of a Large Rodent Ulcer of the Scalp." Mr. Bryant, "A Case in which a Biliary Calculus was removed by operation from the Gall-Bladder, and a Cure resulted."

Quekett Microscopical Club (University College), 8 p.m. Mr. Adolf Schulze, "On a Method of Resolving the Finest-lined Diatomaceous Tests." Mr. A. D. Michael, "On the Reproductive System of certain of the Acarina."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Mr. Francis Galton, "On Generic Images."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 12, 1879.

BIRTHS.

Births of Boys, 1241; Girls, 1114; Total, 2355.
Average of 10 corresponding years 1869-78, 2402·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	870	916	1786
Average of the ten years 1869-78	811·4	763·6	1574·0
Average corrected to increased population ...	...	...	1684
Deaths of people aged 80 and upwards ...	...	...	88

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	6	3	3	2	6	...	2	1	4
North ...	751729	1	14	8	2	18	...	4	...	8
Central ...	334369	...	6	...	1	3	...	2	...	...
East	639111	...	18	3	1	17	...	3	1	3
South	967692	5	10	5	5	30	...	6	...	8
Total	3254260	12	46	19	11	74	...	17	2	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·385 in.
Mean temperature	43·0°
Highest point of thermometer	60·7°
Lowest point of thermometer	27·7°
Mean dew-point temperature	37·9°
General direction of wind	Variable.
Whole amount of rain in the week	1·05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 12, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1579.)	Births Registered during the week ending April 12.	Deaths Registered during the week ending April 12.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2355	1786	60·7	27·7	43·0	6·11	1·05	2·67
Brighton	105608	44·9	81	43	56·3	26·5	42·9	6·06	1·19	3·02
Portsmouth ...	131821	29·4	67	38	...	...	...	...	...	...
Norwich	85222	11·4	54	53	56·0	31·0	41·8	5·45	0·70	1·78
Plymouth	74293	53·3	40	46	...	...	...	...	...	...
Bristol	209947	47·2	127	93	58·1	31·8	42·4	5·78	0·84	2·13
Wolverhampton ...	75100	22·1	56	42	54·6	29·5	40·1	4·50	0·93	2·36
Birmingham ...	388884	46·8	260	181	...	...	...	...	...	...
Leicester	125622	39·3	80	50	61·0	29·0	41·8	5·45	1·05	2·67
Nottingham ...	169396	17·0	107	79	60·5	27·2	42·0	5·56	1·47	3·73
Liverpool	538338	103·3	358	247	55·3	29·8	40·6	4·78	0·72	1·83
Manchester ...	361819	84·3	228	167	...	...	...	...	...	...
Salford	177849	34·4	124	73	...	...	...	...	...	...
Oldham	111318	23·9	83	57	...	...	...	...	...	...
Bradford	191046	26·5	81	97	55·2	31·6	41·6	5·34	0·60	1·52
Leeds	311860	14·5	176	139	...	...	...	...	...	...
Sheffield	297138	15·1	160	127	58·0	28·5	40·6	4·78	1·19	3·02
Hull	146347	40·3	107	64	56·0	31·0	40·8	4·89	0·68	1·73
Sunderland ...	114575	41·4	82	49	51·0	34·0	40·2	4·55	0·95	2·41
Newcastle-on-Tyne	146948	27·4	101	60	...	...	...	...	...	...
Edinburgh	226075	53·9	150	88	51·7	30·0	40·9	4·94	0·95	2·41
Glasgow	578156	95·8	392	255	50·5	35·0	43·1	6·17	0·66	1·68
Dublin	314666	31·3	165	168	50·2	30·0	42·1	5·62	0·63	1·60
Total of 23 Towns in United Kingdom	8502896	38·6	5429	4020	61·0	26·5	41·6	5·34	0·91	2·31

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·39 in. The lowest reading was 28·79 in. on Monday morning, and the highest 29·93 in. on Friday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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Vide The Lancet, January 11, 1879; British Medical Journal, February 8, 1879; Medical Times and Gazette, April 12, 1879.

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ON PHASES OF QUACKERY AND MEDICAL DEFENCE.(a)

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

For my part, holding as I do a position as a public man, as well as that of a professional man engaged in the ranks of those who practise medicine, and as one jealous equally of public as of professional reputation, I would not for a moment hold the presidency of this Medical Defence Association were I not solemnly convinced that the work of the Association is for the public, as it is also for the professional good, and indeed for the public good firstly and mainly.

So intimate and delicate are the relationships between the profession of medicine and the public, that whatever is for the real benefit of the profession is equally for the benefit of the public. The higher the professional standard of medicine is raised, the higher are the members of the great body of medicine placed above want, and therefore above the temptation to commit sin. The higher the members of the profession are advanced in the social scale, and of worthy public estimation, the better are the true interests of the people, in all that concerns the care of their health, considered, served, and satisfied.

The reason why these positions are as I have stated, is plain enough, and is in the nature of things positive. That which the sick man requires, first of all, in his sickness, is protection. He is disabled, and must be protected,—protected against himself more than against anyone else; for the strongest of men and women, the strong of mind sometimes even more readily than the weak, are very soon off their mental balance when the travails of disease overtake them. It has been in the range of my own experience, more than once, that the most educated of physicians, and in their periods of sound health the most fervent in their detestation and denunciation of quacks and quackery, have during diseased states of body,—not of a fatal character,—been ready to run after the veriest scamps in the ranks of quackery, and to resort to the most wanton and foolish of quackish devices, paying the quacks withal for their knavish tricks while willing and unselfish brethren have been taxed to wait and attend without so much as a thought of compensation for time, anxiety, and trouble.

With such facts as these staring us in the face, what shall we say to the members of the general public, if they in like manner, under the mental alienations of disease, or under alienations of fear and love for those dearest to them, run from the learned and honest, to the illiterate and knavish, and seek, in the depths of superstition, what they think they have failed to find on the heights of science? What shall we do to meet the danger to which these seekers expose themselves, and to lessen the communicating and communicated evils which that seeking tends to keep alive?

In the answer to those questions is included the whole subject of what we call Medical Defence. Our existence as an association is to defend and protect the sick. We have no other object whatever, and if we were called *"The Sick Man's Defence Association,"* instead of the Medical Defence Association, the term would equally well describe our true position.

The object we have in view is, then, distinct enough, and assuredly the range afforded us for our operations is sufficiently wide, for we have to study the movements springing from the worst instincts of mankind. Quacks are born, not made. Quacks are born criminals who by accident of position are led to practise their criminalities on the issues of life and death. They exist within the ranks of the profession of medicine, as well as out of it. A little change of circumstance in the way in which his life was first cast, and the quack had been a burglar, a bandit, a forger, a thief, a receiver of stolen goods, a common murderer. Nay, he might be of the worst of these the worst: for some of these may show qualities of skill and of courage in the commission of their offences; while the quack practises like a mean coward on the innocent and the enfeebled, so that he is the most contemptible as well as one of the wickedest of the criminal community.

On the ground that we despise and justly hate this criminal, that we are not afraid of him, and that we would if we could rid the world of him and his crimes, we claim a reason for our existence, and for being acknowledged and supported by all who are right-minded and ready to defend the feeble. It is circumstance, not intention, that puts this organisation first into our hands as medical men. We see the evil most clearly, and therefore move towards its extinction most readily; but our desire is to have all the intelligent public moving with us, and we know that until we have this assistance we shall make very slow progress indeed in way of prevention, although we may do much to discover the road to progress by surveying the lines on which quackery is laid.

It will perhaps be best for me, on the present occasion, to touch in the first place on the lessons which our Association has so far learned in respect to the extent and character of the world of quackery as it is presented in this civilised and free country at the present time. The lines of defence against quackery will thus be more correctly indicated for after-study.

In the course of our existence as a society we have had occasion, as the report read to-day states, to prosecute, in several instances, the common kinds of flagrant quackery. These have by no means represented all the forms of irregular practice that have come under our knowledge; neither do they represent the worst cases, for with many of the worst there exist no ready means of suppression; but in the study of the quackeries which have specially come before us we have noted others. The following are the most prominent representatives of quackery that have come under our notice.

Terrorist Quacks.

There is a form of quackery which is essentially of the lowest, if not the wickedest, in the whole field of quackery, which in the most systematic manner deals with the more secret and objectionable of human infirmities—I mean with diseases which spring out of sensual indulgence. The men who carry out this line of bad business are numerous, as a class, numbering, I believe, in England and Wales alone from three to four hundred. They are not, as a rule, men who have received any medical education. A few of them may have attended classes, and a few may have passed through their curriculum and failed in examination. The majority are mere ignorants who assume to possess a medical qualification from a medical college of some other part of the world. They base their claim to be trusted on the ground of the secrecy of their knowledge and the secrecy of their proceedings. The very fact that they themselves are obscure, hidden, distrusted, is the reason too often why they are consulted by those who, in the matter of their illness, themselves wish to be obscure and under concealment. Many a youth, who under ordinary circumstances would go to the family physician or surgeon for advice and assistance, goes to one of these men because he thinks he can open his mind to such a man freely, and communicate his distress without fear of discovery.

A number of these quacks catch their victims by means of books which they write, and which they advertise largely. In the books so written there is nothing new. They are nearly all founded on one rather old book, which was published in English in the early part of this century, which from its title assumes to be the work of one of the ancient Greek philosophers, Aristotle, and which still floats about as a kind of suppressed book to be read only in secret, and never acknowledged. There can be no doubt that a few of the men engaged in this line of practice acquire money, and some of them are able, under an assumed name, to conceal their abominable avocation even from their own families. They pass themselves off as "City men," or as "merchants," or under some other general term. One of these men once took a sudden alarm that he was about to receive condign exposure, if not condign punishment, from our Association, and he thereupon wrote to us imploring us to let him escape. He said that none of his family knew his mode of life, and that for them to know it would be ruin to their prospects. He faithfully promised to retire from the quack business at once, and, in proof of his abhorrence of it, he tendered the gift of five guineas to the Association, to enable it to prosecute another quack of a similar stamp and character! We gathered from this, that these quacks do not entertain the Christian virtue of loving one another,—and that we rather accepted as a hopeful sign.

The greater number of these men lead miserable lives.

(a) Presidential address to the Medical Defence Association, at the annual meeting on March 26, 1879.

If a few of them get wealth they are afraid to enjoy it; most of them do not get money, but sink from one lowness to another, until they become the very dregs of society.

These men do an incalculable amount of evil. They not only directly rob, they corrupt their victims. Seizing upon minor failings of a physical or moral kind, they distort or caricature such failings until their victim is literally distraught with the idea of the life-long misery that is in store for him. Moreover, having raised this misery, they do no mortal thing to allay it. It is a part of their shameless policy to keep the mental wound open, to offer temporary relief at the most, and to maintain silence at the cost of a levying which knows no end so long as the fears of the victim hold ascendancy over the acts of his life.

Occasionally the quack of this school is in the hands of other men less scrupulous even than himself—men who hold him, direct him, use him. In one instance which I have known, the quack, or ostensible practitioner, was a duly qualified and—strange to say—in his better days a well-informed and genial man. He carried on his nefarious work in a house belonging to his employer, a wretched money-lender, who, acting as servant to his tool, actually kept the door, together with the most rigorous account of every patient who came, and of every penny that was paid.

The respectable public cannot think we do wrong in keeping an eye on quacks of this order. If the public understood its own dearest interests, if it understood the interests of those youths who spring from it, and who are to become the backbone of the next generation, it would give us more than thanks for our vigilance, it would give us its earnest assistance—

"To whip these scoundrels naked through the world."

I am glad to say that the very fact of the existence of our Society has largely checked this class of men. "Resist the devil, and he will fly from you," was never better illustrated than in their histories. The merest attack on them disturbs their success; and, in short, they exist simply because they are permitted. The public gives them a tacit licence, and that is their diploma. Supported by the public voice, we could put them all down in twelve months, and relieve the young of their pestilent influence for this generation.

This family of quacks may be called the *terrorist family*.

Homicidal Quacks.

There is another entirely different order of quack, more dangerous, and in one sense more directly mischievous, because he is even murderous in intent. This man, as a rule, has his accomplices in the female sex, and works in combination with them. He carries out one of three courses, or sometimes two of three; or, again, three of three. These courses are—(1) to stop life at its beginning, by artificial means; (2) to produce abortive birth; (3) to destroy the life that has been produced at the first stage of its existence.

The class of criminals who are thus employed are far more numerous than many suppose. The rewards for their crimes are great; and it sometimes happens that the persons who employ them hold what is called "position" in society. The crimes of the bulk of these are very difficult to trace home, as the records of the coroners' courts on the still-born too convincingly prove. With some of these men a certain amount of skill, acquired by actual practice, enables them to destroy the infant life and save the life of the mother, so adroitly, that conviction becomes almost impossible. It is only when the unfortunate mother is fated to die with her offspring that any discovery of a true and convincing kind is made.

With offenders of the first named of this family of quacks, we have more than once been made acquainted; and in one instance the police gave us information of the most important kind. The result was that both the words and the works of one of the lowest representatives of the family were effectively stopped.

With the offenders of the second and third orders of this family we have not been so successful. They are too often shielded by a legalised diploma; and, as I have shown, evade discovery by a perverted knowledge and skill.

The family of quacks thus described may be called the *quack homicides*.

Nostrum-mongering Quacks.

There is a third order of quacks, the members of which are not perhaps intentionally criminal, but who, nevertheless, take upon themselves duties and functions that are altogether foreign to their knowledge and skill. It is not so much that they practise irregularly or without licence, as that they pretend to treat diseases with the names of which they are not correctly familiar, and with the nature of which they have no conversance whatsoever. Some of these quacks take one particular disease or one particular set of organs of the body under their pretended care; others assume to treat diseases in general, in which case they commonly pretend to possess a particular kind of remedy which adapts itself to every kind of case. These last-named, owing to the method they pursue, attain, by the rule of chances, a certain measure of success. Vending some one active medicinal substance, such as opium, quinine, or iodide of potassium, and supplying the remedy to a great number of persons indiscriminately, they are sure to give it every now and then to a person who will be benefited by it, and so in time they get together a list of successful cases, or, as they call them, cures. This was signally the fact about five-and-twenty years ago in the career of a noted quack woman of the Midland Counties, whose remedy was simply quinine given under various disguises, but always in full and effective doses. There are so many forms of disease in which quinine acts as a splendid remedy, it is no wonder that this quack had a long list of "cures," each of which, magnified in number by admiring credulity, gave a credit to her practice which no regular practitioner of medicine could legitimately attain. The same kind of success is, I believe, at this moment attending "a mode of cure," as it is called, in which the curative agent employed is potassium iodide. Others, again, in this family of quacks bring out a particular remedy for one particular disease, and try no further. I believe that, without an exception, the men who follow this plan do no more than use the prescription of some well-known physician or surgeon, which prescription has either been published or has come into their hands from the original. One of the most largely sold specific pills was, to my own knowledge, made from a formula in the day-book of a late eminent general practitioner. The vendor of this pill, who assumed a new name in order that he might carry out his design without being generally known, made no secret of the source of his remedy to the person from whose book he originally purloined it. This family of quacks is very large and industrious, and, I fear I must add, successful. The members of it make fortunes, and they connect themselves so closely with the mere sale of their nostrums, without making a pretence to prescribe or practise, that they succeed usually in evading all the existing laws which might be considered as reaching them. It is fortunate for them, moreover, that, although by their haphazard method of dealing out active remedies they often inflict injury, it rarely happens that the injury is fatal.

The family of quacks here described may be designated the *nostrum-monger family*.

Specialist Quacks.

There is another family of quacks, the representatives of which carry out what they are pleased to call a new system, or a distinct system of medicine. Some of these call themselves Botanic practitioners or Herbalists, and comprise the fraternities which my honourable friends, Mr. Serjeant Simon and Mr. Burt, so kindly took under their wings the other night in "another place." These practitioners are very numerous; they exist in every large town. In their practice there is nothing diagnostic, neither is there any scientific art or skill of a therapeutical character. At the same time they hold in their hands drugs of a most potent kind, which they use boldly, and often with the production of extreme effects on the body. Lobelia is one of their prime agents, and digitalis is another, and by the application of such active medicines they sometimes inflict a fatal result. Then they are brought up before the coroner, and occasionally are committed for trial. In most cases they escape punishment, and proceed as before. Many of these persons are not intentionally doing wrong. They are the last of the old herbalists of the Culpepper school, and of a school of medicine proper which existed prior to the time of Boerhaave. They cling to the crude notions they believe in with all the tenacity of superstitious fervour. From this fervour they make others trust them, and produce a sect of believers in them and their doctrines. They do not mix

with other charlatans, neither do they come by accident into their business. "They learn their business," as one of them told me, "in a regular way, like other tradesmen"; and some of them still retain the remnants of astrological traditions.

Akin to the Botanicals are the Medical Electricians and the so-called Galvanisers; but these are not so regularly trained in their practice as a vocation. These are often mere ne'er-do-wells, who learn a smattering of electricity, and, obtaining a battery, apply the current without regard to one single physiological consideration.

There is still another group of this same family of irregular practitioners, the members of which claim to have a special skill in the treatment of the skeleton. These trade under various names—Bone setters being the name most commonly applied to them. They exist in or near many of our great centres of population. They, like the botanic specialists, are born to their work, and very often the business descends in family line. They have no necessary knowledge of anatomy, and no method which they care to disclose to those who would learn from them. Their invariable practice is to find a dislocation, and to do something, much or little—and, too frequently much. I know an instance in which one of these men, mistaking a strumous suppuration near the shoulder-joint for a dislocation, actually pulled the humerus out of its place, and produced a true dislocation of the head of the humerus into the axilla. These bone-setters are popular, and are defended by popular superstition. Raised to the place of legitimate practitioners, their skill is gone, and their credit with it. The late Dr. Willis told me he knew one of these men, who, after having been bred to his empirical calling, came to London to study anatomy in the regular way, and who was so astounded at a description of the carpus given by Abernethy, that he became faint from the remembrance of the manner in which he had manipulated that exquisite piece of mechanism in his ignorant practice. From that moment he lost all faith in a skill which he had previously conceived was of the most perfect order, and which he had ruthlessly exercised. I should gather from what I have observed that the business of the bone-setting quacks is rather on the increase. The favour of some of the wealthy of the community has encouraged these quacks to multiply, while the semi-patronage which has been given to certain of them by some professional men, as if in their stupid mystery there was really some valuable lost art, has helped not a little the public credulity. Within the last few weeks I have been informed that certain of these quacks can actually secure the assistance of duly qualified practitioners to administer chloroform or other anæsthetics for them during what they have the audacity to call "their operations"! If this be credible there need be no cause for wonder if bone-setting should become a fashionable depredation.

Connected somewhat with the bone-setting empirics may be mentioned another mechanical fraternity of modern growth which employs itself in irons-mongering. The unqualified practisers of this craft pretend to a knowledge of deformities of the skeleton, and especially of the spine. They assume to treat diseases in the most pretentiously systematic manner, speak openly of their "patients" and of their operations, and get large fees for locking up poor human beings in iron cages which would have done no disgrace to the Spanish Inquisition. They do endless mischief, inflicting it too often on the feeblest members of the enfeebled community.

The family of quacks here described may be called the *specialist family*.

Protected Quacks.

There is a fifth family of quacks, which, assuming the manner and character of general and fully licensed practitioners of medicine, is given to practise without any licence whatever under different shades of protection. These men have caused us a deal of trouble. They are sometimes men who have gone through a certain part of a regular medical education; they are sometimes men who have had no education at all; and, again, they are sometimes men who follow at the time they are engaged in their quackery some other occupation in which they have been trained. They fill up their leisure in the quack practice. I know of one of these now who is in an office at regular work there, and who between office hours attends patients suffering from croup and other of the most solemn diseases. The immunity which these different kinds of quacks experience is due to the protection they get from traitors in the camp of medicine itself. They put up their names as curers side by side with the name of some duly qualified medical man. The traitor signs the certificates of death in cases of death, rushes in in emergencies, and, in a word, covers his friend with the protection of a licence which he has sworn shall never be degraded. It is a pitiable disclosure to have to make, is this, but it is as true as it is pitiable. We have known instances where the protecting man has been residing nine and ten miles away from the protected. A mere sense of greed, rarely of necessity, leads to the course of conduct so subversive of all professional morality, truth, and honour.

The family of quacks here described may be called *the protected family*.

Counter Prescribers.

We have had many times to consider the practices of those amongst the unqualified who are accustomed to prescribe over the counter for the evils that afflict humanity. We have rarely met in council without having had laid before us some case of irregular counter practice. Those who are charged with this irregularity are dispensers of medicines—druggists and pharmaceutists. The extent to which this form of irregular practice is carried out is extremely variable. The highest class of pharmaceutists discard it altogether; the lowest class cultivate it sedulously, and, no doubt, turn it to a profitable account, trespassing largely on the province of medicine proper. The majority carry out the practice in a modified form, giving as little advice as possible, yet never refusing it altogether—believing, in fact, that it is a necessary part of their vocation. According to the strict letter of the law, we think that the gentlemen who carry on the counter-prescribing business are constantly breaking the law, but we should never dream of classifying them with the other families of the baser sort which have been described in previous sentences. I shall take the opportunity, before I sit down, of considering how that which is irregular in this line of practice may possibly be arranged in an amicable and satisfactory manner. The work of the Pharmaceutical Society has tended to make pharmacy a science, with which medicine should be in friendly and recognisable communion, to the ultimate advantage of both and of the commonwealth.

I have thus placed under their different heads the various classes of irregular practisers with whom we, as an association, have come into contact. There is a remnant of another class which once was the first of all—I mean the old peripatetic, who wandered about to sound of fife and drum, a truly historical being, and now and then a veritable philosopher. But the remnant is a remnant now. In some English cities there remains still a licensed corner of the street in which the peripatetic may, at stated times, stand and "cure"; and there are also several market towns in which he still keeps his stall, sells his vermifuges, and exhibits his pathological triumphs. Taking him at his best, he is in this day reduced to worms and warts, with an occasional invasion into corns and bunions. He must be too harmless to be cared about, however, for we, officially, have no reports of him whatever. *Sic transit!*

I have felt it would be worth the time thus briefly to classify the different orders of irregular practice with which we have had to deal in our work.

I know there is nothing at all that is new in these descriptions in the way of information to the profession or even to the public, but I have tried with some pains so to marshal the facts that we may see more clearly the work of reformation that lies before both the profession and the public. To that topic let me next ask your indulgent attention.

THE SUPPRESSION OF QUACKDOM.

And this fact, I think, at once stands out, that the evils to be met are very complicate, and are only to be dealt with by the process of treating them one by one, and seeing how they can finally be grouped together to be brought under practical legislation. I use the word "legislation" with a sigh. It is necessity, not desire, which enforces its utterance. I know it would be far better and far happier for us who practise medicine within its legitimate boundaries if we had no occasion to ask for legal protection, and if the people had no occasion to ask for legalised practitioners. But, alas! there is so much crime, both in the way of omission and

commission, amongst the irregulars in medical practice, it were itself a further crime to wait for the day when general enlightenment shall render the rule of law the rule of oppression on the one side, and of privilege on the other. We must still have some legal protection for the afflicted, even from themselves, from their weaknesses and vacillations, and for their own interests. We must have it specially for those who, being young and innocent, are not as yet a law unto themselves, but are under the direction and guidance of those who are their masters and directors.

It is probable, I dare say, that the day will come when all the learned professions will cease to exist. We none of us can fail to discern, if we use our discernment, that almost all the evils we have to contend with are due to the follies or ignorances of the human world. In law an insanity of purpose in his *clientèle* keeps the lawyer employed. It is next to impossible to suppose a lawsuit in which one of the parties concerned is not to some extent insane, while in many instances both parties are wildly insane. In medicine it is most difficult to find a case in which some error of judgment, or action of the present or of past generations, is not the root of the evil; an error which a better and sounder knowledge and foresight will utimately prevent. But while these varied insanities and errors last, some persons must be duly trained to study and meet them for the time, and by the study and practice to suggest the final means for their complete removal. Such persons must, in their turn, be duly protected in their high vocation; while those who do not dare to face the same ordeal of training, and who, from ignorance or selfishness, claim to rank with them, must be put down by all fair and honest means.

We who stand up for medical defence ask for no more and no less than this scant and wholesome justice.

When we look back upon the different qualities of the different classes of men who make up the irregular corps of physic, we soon discover that different methods of treatment require to be pursued in the process of suppression. To these methods we have given long and close attention in our councils.

Taking up those groups which I have included under the heads of the terrorists, the nostrum-mongers, and the specialists, we are of opinion that these will best be met by a clause in the proposed new Medical Act which shall not merely prevent them from assuming false medical titles, but also from assuming false medical practice. To the common mind this will seem to be the only use of such an Act, and yet it is the fact that we have had from our practical experience to urge this action upon the Government, and, as it will be seen, with good effect. Should our suggestion, simple as it is, pass into law, the reform it will effect will be most important. It will correct dangerous malpractices in surgery as well as in medicine, and it will supersede altogether the old and impracticable power of the Apothecaries' Company, a power always partial in action, uncertain in its exercise, and of little real use or authority.

Over the heads of the terrorists we have, moreover, some additional authority. In order to carry on their loathsome craft, they constantly come under the Act for the suppression of obscene publications and practices, and by a vigilant observation of their *lâches* in this respect they are to be brought under frequent subjection. In the past year, as our report explains, the Association has been the instrument of stopping the works and acts of one of the most unclean members of this fraternity.

It has been suggested more than once, that in dealing with the class of quacks now before us we ought to protest against the patent medicine system, and to urge on the Government its speedy abolition. The subject is one we shall have to consider, but the fact is that the advertised quack remedies that are patented are generally innocent trash when compared with the unpatented preparations. I rather think that the patent laws might be enlarged, to the benefit at once of the public health and of the revenue, by enforcing that no medicine should be advertised as a specific unless it be not only patented, but the secret of it disclosed—which is not now done. I also think that great good would come from pressing the rules of the Sales of Poisons Act on the sale of many poisonous preparations vended as medicines. These are all points on which we would like to have the opinion of competent judges.

The two classes of men whom I have called quack homicides and protected quacks are not so easy to suppress. They sail, as a general rule, directly or indirectly, under the legal diploma, and they use the very means which are intended to protect the public interests, for the purpose of inflicting injury and even death.

In reaching these persons our recourse so far has been to watch the proceedings in the coroners' courts in cases where good ground for suspicions has been laid before us, and to insist that the inquiry shall be carried out to its fullest fair degree. We have also paid much attention to the mode in which certificates of death are drawn up and signed, and have communicated with the Registrar-General, who is fully alive to deficiencies of registration, in relation to the extent of the present evils and the best mode of amending them.

My own view is that an amended system of registration would do more to suppress secret crimes committed by the classes of pretenders now under consideration than anything else; more even than the establishment of a public prosecutor, valuable in executive action as such an officer would be. In this opinion I am glad to be supported by so great an authority as Mr. Edwin Chadwick, whom I see present, as well as by our great statistical authority and vital physicist Dr. William Farr, who also honours us with his presence. I further incline to Mr. Chadwick's idea, that the medical officer of health ought to be an officer formally entrusted with the corroboration of all certificates of death; that every such certificate should pass under his supervision, and should not be officially received as a permit for burial or other method for disposing of the dead until his consenting signature appears upon it.

In some instances of notorious irregularity, in which the pretenders have been at their work under the protection of a legally qualified man, we have been able to remove the scandal by an appeal to the protector direct: by letting him know that we were aware of what was going on, and by suggesting that he should withdraw an assistance which was so derogatory to himself and to his profession.

The class of irregular practitioners who have caused most anxiety, from our wish to be scrupulously just to them, has been that class which is called the counter-prescribing class. Without for a moment admitting that in law there is any class privileged to prescribe at all out of the ranks of medicine, we have ever felt that the dispensing chemist is in a most difficult position, and that he is sometimes even obliged to break the letter of the law.

It is inevitable that so soon as a man begins publicly to sell medicines and remedies, buyers will begin to seek advice as to remedies from him. It is inevitable also that in emergencies he will be called, by the purest dictates of humanity, to supply remedies according to his best skill and judgment.

All this we admit, and we look not with jealously or dislike, but with sincere admiration and sympathy, on those great labours for the improvement of pharmacy, which, commencing with the late Mr. Jacob Bell, have been so successfully, assiduously, and handsomely carried out by the Pharmaceutical Society. The higher class of scientific pharmaceutists are no longer aliens to us, but brethren who bring into practical utility for mankind those curative agents which the higher scientific minds of our profession search for and discover.

While, therefore, we have determined to prove, and have proved by one crucial case, our incontestable rights, we are not wishful to let matters rest unsettled, though based on rights which may seem favourable to our interests.

I, for one, at any rate hold that the time has come when the difficulty that is now before us of counter-prescribing shall be met not by levelling down, but by levelling up; that is to say, by making such prescribing a perfectly legal practice in the hands of a specially elevated and examined class of practical pharmaceutists.

It seems to me that the day has arrived when the Apothecaries' Company,—still a good and useful body, and one that has done admirable work in its time, but which is now becoming practically defunct as a medical licensing body,—should join with the Pharmaceutical Society in establishing a thoroughly good examination, the passing of which should enable the holder of the licence it would confer to prescribe, without molestation, and without anxiety as to legal consequences, for those minor ailments which the druggists now prescribe for without any licence at all, and often without any knowledge at all, and which they will continue to prescribe for, by the public determination, whether they desire it or not.

In the examination which should be provided for the purpose now proposed, there is no necessity to think of anything commonplace or superficial. The pharmaceutical examination which at this time exists, and which has already half anticipated the movement, might stand as it now does at the Pharmaceutical Society, and, with the exception of midwifery, all those parts of the present examination for the licence at the Hall that are not strictly included in the pharmaceutical division might also stand as they are.

For this combined examination there would soon be plenty of excellent candidates, if the admission were reasonably accessible.

The qualification thus granted, and extending solely and legitimately to counter practice, never to outdoor visiting, would at once smooth away the present difficulties and persistent annoyances. It would define responsibilities and duties in the clearest manner. It would not give the dispenser the right to sign a certificate of death, nor any medical certificate whatever; it would not give him the right to call himself a fully registered practitioner of medicine; but it ought to give him the exclusive right to dispense publicly all medicinal substances.

With the class of men who would by these steps become the pharmaceutists of this country, the professors of medicine and surgery proper need have no cause for quarrel nor jealousy. They would be highly educated men, occupying a much higher scientific position than the druggist occupies, as a general rule, at this time; and they would be such able dispensers and professional allies that all who were engaged in practice purely would cease to feel any necessity for dispensing medicines, or for doing anything more than attend the sick and prescribe for them.

By this plan, also, as I venture to think, the medical requirements of the community would be supplied on a sound and uniform system. There would be physicians and surgeons practising amongst the people, a first and moving division of medicine. There would be a body of educated men always at their posts, a second division, carrying out methodically the practical directions of the first division, and, in minor cases and emergencies, ever at hand to render, in an efficient manner, services which they now render without any reference to efficiency at all.

I make this suggestion on my own responsibility, connecting my colleagues of the Medical Defence Association in no way with it, except as they may, on reflection, wish to be connected with it. The suggestion is based on the principle that the public necessity, which is the first thing to be considered, and which, in this instance, must be considered apart from professional prejudice, or idea of what merely seems good for our profession, or blindness to the open fact that what is best for everybody is best for our profession and for every profession. For the proposition I shall, I know well enough, be called a visionary. But the vision here stated will certainly become, in time, virtually, if not in all details, actually the fact. Then it will be forgotten as a vision. It will sink into common work-a-day life. So far, I learn from experience, is the fate of visions, and am, nevertheless, content with them, because they answer the purpose for which they were originally intended.

If it would not have broken the strain of this discourse, or if you were not too wearied to follow a new theme, I had done well to turn aside from the irregular ranks of physic, and to direct attention, from the experience of our Association, to some of the irregularities that have been brought before us, in and within the legitimate pale itself:

> "For never can true wisdom dwell with those
> Who, playing tricks with fortune, dare not look
> At their own vices."

And, if we, from the vantage-ground we have gained, by steady acquisition of facts, facts not intentionally sought after, but literally forced upon us, were to express all we have learned, we should unfold a great deal that had better be folded up again and buried straightway, or cremated. The subject is one that will not lose by being kept, and, with that note upon it, I leave it for another and fitting occasion. It is sufficient now if I have shown that the Medical Defence Association has a *raison d'être*, and that it bases its claim for public and professional support on the principle that that which is nearest to absolute justice is also nearest to public morality, enlightenment, and security.

ORIGINAL COMMUNICATIONS.

ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.A., B.Sc., M.D. Lond.,
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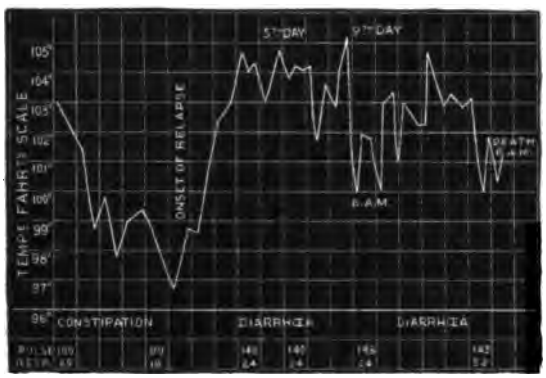
(*Continued from page* 317.)

In this paper I shall narrate an instance of fatal relapse. Death in relapse is very uncommon, for reasons which will be afterwards given. The temperature in the case was taken with great care and regularity, and its chart is of value in many directions, even though it stood alone; but, taken with the previous relapses reported, and with such as follow in this paper, its teachings are very decided. A casual comparison of the charts is enough to indicate this fact: that irregularity of temperature is always dangerous in typhoid fever, and that danger is not always associated with hyperpyrexia alone.

Case 18.—A male, aged twenty-one, was admitted into Charing-cross Hospital in November, 1878. He was then supposed to be in the first week of an attack of typhoid, and at the time of admission his temperature was 104° Fahr. The fever continued for twenty-one days in hospital, and then seemed to be at an end (fourth week of the disease). The defervescence during the last few days will be found in the chart below. The temperature became subnormal; the patient seemed to be doing exceedingly well; his pulse and respiration were satisfactory; his tongue was clean, he craved for food, and there was no diarrhœa,—in a word, there was every promise of speedy convalescence, when, without any warning except that given by the thermometer, a relapse set in. The temperature was 96·6° Fahr. on the twenty-first morning of admission. It immediately began to rise (relapse), and on the fourth morning was 104·6° Fahr.; on the fifth it had fallen to 103° Fahr., but in the evening was 104·7° Fahr. The occurrence of relapse of severe character was beyond question; the patient was evidently dangerously ill, and his pulse averaged 140. And to the eighth day there was every need to give a grave prognosis, the temperature each day persisting at about 104° Fahr., and at 3 p.m. of the eighth day reaching 105·2° Fahr. A very bad view was taken of the case, but a fall of fever then set in, and at 6 a.m. of the ninth day the temperature was only 100° Fahr: it had gone down five degrees in fifteen hours. This was certainly favourable, but at 9 a.m. the thermometer marked a level of 102° Fahr. On the tenth morning the temperature was once more only 100° Fahr., but the fever was "unsteady" and indefinite, and therefore (I maintain) indicative of danger. It rose also from the tenth day in a manner which pointed to danger, and on the twelfth reached 104·8° Fahr. It fell from this date, and on the afternoon of the fourteenth day was as low as 100° Fahr.; but the pulse was 144, and the respirations 52. On the fifteenth morning of relapse the patient died very suddenly, the temperature taken shortly before death being only 101·2° Fahr. He was completely conscious at this time, and immediate dissolution was not expected. Death occurred to all appearances from syncope; the patient attempted to raise himself, and fell back dead—at about 6 a.m. of the fifteenth day. On post-mortem examination the heart was found to be flabby and its ventricles were dilated, but no perforation of the intestine could be discovered. The examination, in my absence, was made by Dr. Robert Smith, the Medical Registrar, and his excellent report states that Peyer's patches were affected as in ordinary cases of typhoid fever, and that there was nothing in the intestine to separate by morbid appearances, relapse from primary attacks.

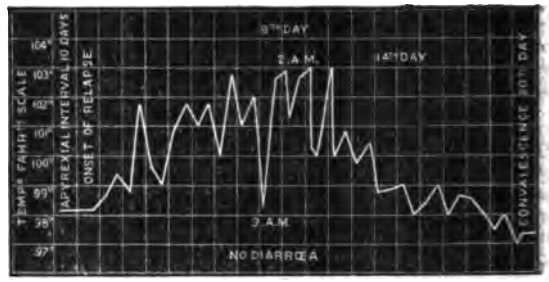
The interest of this case is great. The condition was from the first unfavourable, and, with the whole temperature-chart before us, its teachings are very evident, especially when we compare and contrast it with those previously given. From the fourth to the eighth day high temperatures prevailed, and on the eighth evening the fever (105° Fahr.) exceeded that of the fifth day. On the ninth morning came a satisfactory fall, but the succeeding exacerbation was too continuous, so that on the twelfth morning the temperature was 104·8° Fahr.; on the thirteenth and fourteenth days also the temperature was high. It then fell, and on the day

before death was only 100° Fahr., and at the time of death 101·2° Fahr. The irregular course of the fever was indicative of danger, and it is interesting to note that this irregularity was not alone in grave prognostications. The patient was during these irregular days restless and anxious; his movements were fitful and disturbed by fine or coarse tremor; his pupils were dilated, and his eyes had a glassy look; his cheeks showed a characteristic circumscribed flushing; his tongue was deeply furrowed along the centre, and dry and fleshy along the edges, and his pulse was comparatively slow; and in spite of the restlessness there was a constant dangerous tendency to coma-vigil. With the fall of the temperature to 100° Fahr. (the day before death) the respirations increased to 52, and the pulse rose to 145, and indicated failing heart-power. So the irregularities of the fever, as accurately measured by the thermometer, confirmed the teachings of danger which the unaided hand and eye had detected.



Case 18: Fatal Relapse of Typhoid Fever (a male, aged twenty-one).—Primary disease terminated at the end of the fourth week by rapid and almost uninterrupted defervescence. The temperature on the last day was 98·6° Fahr. Relapse set in suddenly on the same day, and on the fourth day the temperature was 104·6° Fahr., and on the fifth 104·7° Fahr.; it rose, therefore, rapidly more than eight degrees. It fluctuated irregularly to the eighth afternoon, when it was 105·2° Fahr. Thence it fell to 100° Fahr. on the ninth morning, to rise again to 104·6° Fahr. on the twelfth morning. It fell again, and on the fourteenth evening was 100° Fahr. The patient died suddenly at 6 a.m. of the fifteenth day, the temperature shortly before death being 101·2° Fahr. No case more than this proves the prognostic value of careful records of the temperature. (*Vide* text.)

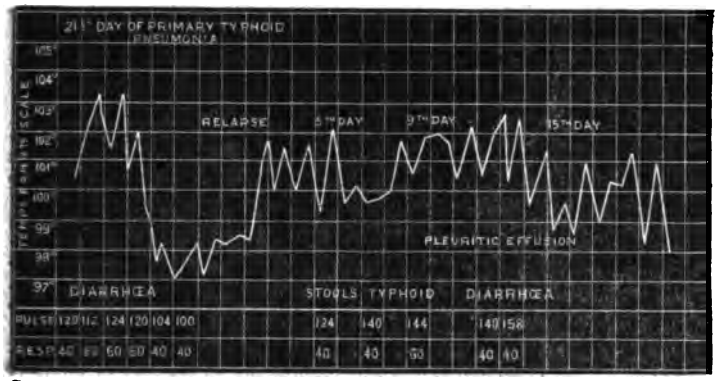
Case 19.—A female, aged twenty-one, was admitted into hospital in January, 1878. She was suffering from typhoid fever, which had reached the third week. The attack was one of considerable severity, but unattended by diarrhœa, and terminated, after at least four weeks' duration, with deep daily curves in the last few days. For ten days afterwards the temperature every day approached 99° Fahr.; but the patient was, to all appearances, quite convalescent, and occasionally the temperature was subnormal. Constipation was very marked during these ten days, at the end of which relapse commenced. On the morning of the first day of this relapse the temperature was 98·2° Fahr., in the evening 99·5° Fahr., and on the second evening 101·7° Fahr. On the third day the temperature fell to 99° Fahr.; but it rose again, and on the fifth day was 101·8° Fahr. On the sixth morning it was only 100° Fahr.; but on the same evening 102·6° Fahr. Constipation still persisted, the pulse was 120, and the patient was seriously ill. The curve from the sixth day to the ninth is worthy of notice (*vide* chart). On the eighth morning at nine o'clock the temperature had sunk to 98·5° Fahr., but it immediately rose; and at two o'clock of the ninth morning had reached 103° Fahr. On the tenth and eleventh mornings it rose to the same level; but from this time it sank rapidly, rarely rising above 100° Fahr., and passing into the subnormal on the nineteenth day of the relapse. From first to last there was constipation, which was not interfered with except occasionally. Such stools as were passed had the typhoid characteristics. The patient made a good recovery. I quote this case and publish its chart because it is instructive in two directions particularly. The temperature was never very high, but it was irregular and uncertain, and therefore indicative of danger; it was marked by tendency to deep daily fluctuations, and in this way resembles some cases of typhoid which are followed, not by relapse, but by a more dangerous condition—suppuration of the mesenteric glands, for example, and consequent septicæmia. I think the chart will be of value when compared with some illustrative of pyæmic changes following typhoid which will be subsequently published.



Case 19: Relapse of Typhoid with Irregular Temperature (a female, aged twenty-one).—Admitted in the third week of primary attack, which was severe and ended about twenty-eighth day. An apyrexial interval of ten days followed, during which constipation was obstinate. Relapse began, the temperature on first day being 98·2° Fahr., and on the fifth day only 101·6° Fahr. On the sixth evening temperature was 102·6° Fahr. Patient was at this time severely ill, and on the eighth morning temperature was only 98·6° Fahr., but on the ninth (2 a.m.) 103° Fahr. On the tenth and eleventh days the same occurred. Thenceforward temperature sank, and became subnormal on the nineteenth day of relapse. Constipation prevailed from first to last.

Case 20.—A boy, aged eight years, was admitted into Charing-cross Hospital, in March of this year, under the care of Dr. Pollock. He had a history of illness lasting at least three weeks, the symptoms of which illness were indefinite, but diarrhœa was one of them. A few days before admission the child had a severe rigor, and shortly afterwards became very short of breath, was very hot, and troubled with a hacking cough. The fact was, he had an attack of croupous pneumonia, which seemed to be his only mischief when he came into hospital. When examined on admission by Mr. Rowbotham, the Resident Medical Officer, the physical signs of pneumonia were typically decided, and the general symptoms were in agreement. The pulse-respiration ratio was almost as two to one, and there was an abundant crop of herpes on the lips. The lower lobe of the left lung was the part affected. Typhoid fever was also suspected, chiefly because of the indefinite nature of the three weeks' illness on which an attack of true croupous pneumonia had supervened. Typhoid was, however, a matter of suspicion only, for there were no spots, and though there was diarrhœa, the stools were not typhoid and there was no abdominal tenderness. The temperature on admission was 100·4° Fahr., and the patient was at that time, as the course of the disease proved, at the beginning of a fourth week of typhoid, and in the latter half of a pneumonic attack. On the third day in hospital, at 2 p.m., the temperature was 103·2° Fahr. The fever thence abated with critical significance, and on the fifth morning after admission (twenty-seventh of disease) it was as low as 97·6° Fahr., and in the evening only 97° Fahr., so that in forty-eight hours the temperature ran down nearly six and a half degrees—a fall very characteristic of the termination of a favourable croupous pneumonia. The patient did well for two days, and his temperature was mostly subnormal, but he was not "convalescent." His diarrhœa abated, and yet on the third day from the end of the crisis of pneumonia, the temperature began to rise. A relapse of pneumonia was suspected, and very properly, though the physical signs did not present any decided change. The relapse was one of typhoid fever in reality, on whose first day the temperature was 98·6° Fahr., on the second evening 101·8° Fahr., and on the fifth night 102·2° Fahr. On the third and fourth days diarrhœa recurred, and the stools were, for the first time in hospital, typhoid in character. The evacuations were carefully examined, because of previous suspicions, and because the course of the fever pointed to relapse of typhoid, rather than relapse of pneumonia. On the sixth and seventh days the temperature was only about 100° Fahr., but on the eighth it rose to 101·8° Fahr., on the tenth it was 102° Fahr., and diarrhœa of typhoid character was unequivocal. To the fourteenth day the temperature remained comparatively high (102·5° Fahr.), but there was never any great degree of fever. Diarrhœa continued, the patient was dangerously ill, his pulse and respirations being unsatisfactory. On the twelfth

day his pulse was about 160 in the morning, and his respirations about 40, and his condition generally did not suggest a favourable termination of his attack. There were no evidences of an extension of the pneumonia, but distinct signs of effusion at the left base. The child, however, did well, and from the fourteenth day the temperature declared a tendency to fall. The relapse lasted twenty-one days, and in the last three days there was an approach to the deep curves met with in the last week of primary typhoid. It is not necessary to dwell on the progress of the pneumonia; it followed a course met with over and over again when it is simple and uncomplicated. This case is of great interest; its doubtful character when first it was observed is even more instructive than the certainties which were afterwards developed. The child had a typical pneumonia when admitted—one more typical I have never seen—and he had nothing to indicate typhoid further than a vague history of *malaise* preceding the pneumonic onset. Thus this case bears out what I have already advanced, that typhoid fever is often obscured until declared by its complications or the occurrence of relapse. I ask comparison of the chart of this case with that given in the last paper, in which pneumonia of similar character occurred during a relapse of typhoid fever. Had the thermometer not been used it would have been absolutely impossible to trace the natural history of disease in this case; certainly, we might have determined the presence of pneumonia and of typhoid fever, but of their relationships, stages, and sequelæ, no scientific account, and no account of therapeutical value, could have been given. Such an example as this is of unquestionable value in the discussion of the duration of typhoid fever. The thermometer used as an adjunct in clinical observation helped to explain the nature of the disease, and then to explain its prolonged duration. So, again, the thermometer was of value in pointing out dangers in the typhoid relapse. The temperature, apart from the pneumonic or pleuritic influences, was irregular, and therefore of bad omen. It is unnecessary, after what I have written of other cases, to dwell on the significance of irregularity of fever in typhoid relapse. I will simply say that in this case such irregularity occurred; and that though the temperature was never high, the patient was by all observers during his relapse considered to be most dangerously ill.



Case 20: Relapse of Typhoid following a Primary Attack obscured by Acute Pneumonia (a male, aged eight years).—Patient had an obscure history. Had been ill at least three weeks, but on admission seemed to be suffering only from acute pneumonia. Physical signs and general symptoms proved the existence of pneumonia, which ended with a critical defervescence. The primary disease was suspected—typhoid fever; relapse of typhoid justified the suspicion. This relapse ran a decided and yet a somewhat irregular course. The temperature will be found in the chart. Typhoid stools were met with during the relapse, and determined the nature of the whole disease. Relapse of typhoid lasted twenty-one days. (For details, *vide* chart and text.)

(To be continued.)

Dr. Byrom Bramwell, who has recently left Newcastle for Edinburgh, before leaving received a testimonial from the medical students of the University of Durham. We understand he intends giving a summer course of Medicine in Edinburgh.

Queen's University in Ireland.—At a meeting of the Senate of the University, held at Dublin Castle, on Friday, April 18, James Cuming, Esq., M.A., M.D., Professor of Medicine in the Queen's College, Belfast, was elected a University Examiner in Medicine, in the room of Dr. Charlton Bastian, whose term of office had expired.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

WESTMINSTER HOSPITAL.

A CASE OF DIABETES MELLITUS—IMPROVEMENT UNDER CODEIA—RE-ADMISSION, AND DEATH FROM PHTHISIS.

(Under the care of Dr. ALLCHIN.)

[For the greater part of the following notes we are indebted to Mr. W. H. Quicke, ward clerk].

John R., house-painter, aged thirty-four years, was admitted on January 28, 1878. The most noticeable point about his family history was that an uncle on his mother's side had died of diabetes; otherwise his family seemed to have been fairly healthy. Patient himself had suffered a good deal from cough in childhood, and when about sixteen years old, and again when about twenty-three or twenty-four years old, he had fits—three in all—evidently of an epileptiform nature. Soon after the second attack he married; his wife had had seven children, three of whom were alive, the others having died in infancy. Patient stated that he had suffered from headache as long as he could remember, but since his marriage until November, 1877, his health had been better than he had ever known it. He had always been temperate in every way. He had been a house-painter from the age of fourteen years, but had little to do with the mixing of paints. His weight in the winter of 1876, taken with his winter clothing on, was 11 st. 12 lbs. Towards the end of October, 1877, patient got wet several times, and had colds lasting on to the early part of November. Then he noticed pain in the loins on both sides, which lasted about a month; otherwise he was fairly well. Towards the end of November he voided a large quantity of urine, and was extremely troubled with thirst and hunger. Constipation also began at this time. About Christmas he had cramps in the legs on getting out of bed, and complained much of languor and weakness. Two or three weeks before admission he seemed to feel better and more cheerful. Up to the date of admission he passed urine four or five times in the night. His weight before last November was 10 st. 12 lbs. He had never been put on special diet.

On admission, patient was a man of middle height, good complexion, skin and hair very dry. He was much emaciated; the odour of his breath was sweetish; there was an abundant small purpuric rash on the front of abdomen and sides of trunk. The heart and lungs were healthy; there was no enlargement of the liver, and no œdema of extremities. His weight was 8 st. 14 oz. He stated that he had then a slight discharge from the urethra, and that there was some scalding on micturition.

January 31.—The amount of urine passed in twelve hours (from 9 a.m. to 9 p.m.) was to-day 205 ounces, specific gravity 1040.

February 6.—To-day patient has been put on special diet, consisting of bran-bread, cabbage, roast beef, and egg. Since January 31 the amount of urine passed daily has ranged from 500 to 300 ounces, and the amount of sugar has ranged from 15,300 grains to 8940 grains. Specific gravity, 1030 to 1040.

7th.—Amount of urine passed, eighty-eight ounces; sugar 3520 grains; specific gravity 1045.

18th.—Patient has been gradually improving in appearance. There was some difficulty in getting him to submit to the dieting, and he occasionally laid his hands on the food of other patients and appropriated it. His bowels are now freely open, and his tongue looks clean. His weight is 7 st. 4½ lbs. The sugar in his urine is steadily decreasing in quantity; it is now about 1900 grains in the twenty-four hours.

March 20.—The amount of sugar has kept stationary, averaging about 2000 grains daily. Patient has, however, gained weight, and now weighs 8 st. 5½ lbs. when dressed. Half a grain of codeia every eight hours has been ordered to-day. His urine chart now shows that in the last twenty-

four hours eighty ounces of urine have been passed; specific gravity 1040; amount of sugar 2080 grains.

25th.—The amount of urine passed in the first twenty-four hours after the codeia was given was forty-eight ounces; specific gravity 1035; sugar 144 grains. In the last twenty-four hours ninety-four ounces of urine have been passed; specific gravity 1038; sugar 1416 grains.

30th.—The amount of sugar passed has again risen to about 2000 grains in twenty-four hours. The codeia has been ordered to be given every six hours.

April 5.—Sugar slightly less. Codeia now given in grain doses every eight hours.

17th.—Since April 11, one grain of codeia has been given every six hours. It has now been ordered to be given in two-grain doses every six hours. The amount of urine passed daily is now about normal, and the average quantity of sugar passed during the last five days has been 1031 grains. His condition not varying much, he is about to leave the hospital. He expresses himself as being confident that he is fit for work, but will attend the hospital as an out-patient. It was evident that at first the codeia had a marked influence in reducing the amount of sugar eliminated; that its influence, however, soon ceased to be felt, until the dose was increased, when its action again became manifest; and it was also clear that gradually increasing doses were necessary in order that its effect might be kept up. No other special physiological action of the codeia was noted.

On December 4, 1878, the patient was again admitted. During the interval he had been occasionally attending the hospital as an out-patient, and had continued to take codeia, varying it at times with some simple tonic. He had also dieted himself with some care, eating bran-biscuits, brown bread, eggs, butter, and meat (beef or mutton). Until a few days before admission, he had been at work for ten hours daily, sometimes more, at his trade of house-painting, and, according to his own account, had been quite well until December 2. Then, he stated, about the middle of the day he felt very weak and drowsy; his appetite failed, and he began to have a very troublesome cough. He attributed his illness to having ridden for some distance outside a 'bus on the evening of November 30, when the weather was very foggy. He had noticed no difference in the quantity or quality of urine passed.

The following are the further notes of the case:—

December 5.—Patient looks ill, is drowsy, and complains of great weakness. He has headache, chiefly confined to the top of the head, and is troubled with cough which keeps him awake at night. In twenty-four hours he has expectorated about ten ounces of greyish-brown, tenacious, and aërated sputa. He has pain in the right side, of a sharp character, increased on deep inspiration. The bowels are rather loose, the stools being of a dark watery character. The amount of urine passed in twenty-four hours is about 140 oz.; specific gravity 1025, containing about seventy-two grains of sugar per ounce. On examining patient the heart is found to be normal, the left lung is fairly healthy, and the right lung as low as the fourth rib seems normal, but below that there is in front dulness, with diminished vocal fremitus, absence of respiratory murmur, distinct friction sound, and diminished movement. Behind there are similar signs all over the same side. There is no bulging of ribs. Respirations 16 to the minute, full; pulse 60. The temperature has not since admission been higher than 101° Fahr. Patient's weight is at present 8 st. 4 lbs. The treatment consists of a diet similar to that previously ordered—two grains of codeia given three times a day, and a simple expectorant to be given occasionally.

10th.—The amount of urine passed in twenty-four hours continues to average about 140 oz.; specific gravity to-day 1032; sugar 48·62 grains per ounce. The lung condition is less troublesome than it was, and the amount of expectoration is less. The physical signs, however, show little improvement. Coarse crepitation can be heard over the dull area on the right side, and vocal resonance there is increased. Patient's appetite is better; his sight is more imperfect than formerly, but no structural change can be made out in the eyes. The bowels are rather constipated. The codeia has been discontinued for the present.

12th.—Urine unchanged. Patient suffers much from thirst, and is unable to eat bran-biscuits on account of their dryness. Expectoration is large in quantity and mucopurulent.

16th.—Codeia was recommenced yesterday. Patient looks and feels better. Urine passed in the twenty-four hours amounts to 209 oz; specific gravity 1040; sugar 30·38 grains per ounce.

24th.—There have been several fluctuations in patient's condition, but the right lung seems to be clearing up in front. At the back, respiratory sounds are almost inaudible except on deep inspiration, when a creaking sound is heard. The left lung remains normal. Urine is rather decreased in quantity, there being now about 128 oz. passed per diem. The codeia has been ordered to be given every six hours, and patient is also taking a mixture of quinine and iron and an expectorant.

31st.—Patient's weight is now 7st. 2 lbs., which shows a marked decrease since admission. He does not complain of any urgent symptoms, but is very weak. The quantity of urine passed has during the past three days averaged eighty-eight ounces in the twenty-four hours.

January 3.—There is considerable irritation about left eye from which there is a profuse gummy discharge. At the right base there can be heard a loud, dry, crackling sound with inspiration. Above the spine of the scapula the respiratory murmur is almost inaudible. During the last twenty-four hours the amount of urine passed has been sixty-two ounces; specific gravity 1044; sugar 24·30 grains per ounce. Body weight 6 st. 13 lbs.

14th.—Patient is having bad nights. He continues to emaciate, and the cough and expectoration are troublesome. The urine is of about the same character as last noted.

17th.—Last night patient had slight muttering delirium. There is some œdema of both lower extremities. The quantity of urine passed during the last three days has been severally sixty-five ounce, forty-eight ounces, and thirty-six ounces; specific gravity 1045.

22nd.—Cavernous breathing and pectoriloquy heard over right chest, about second, third, and fourth rib cartilages. The amount of urine passed has still further diminished, and it is very dark in colour.

24th.—Towards the afternoon patient became much weaker, and he died about 4.30 p.m.

Autopsy.—The liver was rather below the normal size and weight, but apparently healthy. The kidneys were somewhat enlarged, especially the right. In the lower lobe of the right lung there was a cavity about as large as a pigeon's egg, and the lung was consolidated throughout. The brain and spinal cord were taken out, and preserved for microscopical examination. They presented a healthy appearance.

FRACTURE OF THE ULNA WITHOUT DISPLACEMENT OR MOBILITY.—A man, aged sixty-six, came to the Charité ten days after he had fallen on his hand, complaining that he could not use his right arm. He paid little attention to it at first, being able to use his arm for the ordinary purposes of life, but finding himself unable to pursue his employment. A swelling was found just above the wrist, and crepitation could be felt below the middle of the ulna. On making pressure at the two extremities of the bone, so as to cause a separation of the fragments from each other, Prof. Gosselin was unable to produce any abnormal mobility of the ulna, and it was only on pressing at the seat of swelling that he felt the bone yield to his finger. This was a case, then, of fracture of the ulna without displacement or mobility; and it is in consequence of the absence of this mobility that these fractures are so often overlooked during the first days after their occurrence, they usually not being discovered until the eighth or tenth day. This, however, is of little consequence, as an apparatus is not required so soon after the accident. The appearance of swelling at the inner part of the forearm, after a fall on the hand, should always lead us to suspect the nature of the accident. In the prognosis we should bear in mind that the fragments of the bone may be carried towards the radius, and a fusion of the two bones of the arm has to be guarded against. Indeed, the treatment required has only this possibility in view, the chief indication being to press the muscles towards the interosseous space. This is done by means of graduated compresses placed on the anterior and posterior surfaces of the arm, applying over them two splints and a roller. Or, better still, three bands of diachylon may be applied, these not being liable to become loosened, and leaving the integuments exposed in their intervals.—*Rév. Méd.*, March 29.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, APRIL 26, 1879.

THE PLAGUE AT ST. PETERSBURG.

It seems doubtful if it will ever be decided satisfactorily whether the plague has shown itself in a very mild form at St. Petersburg or not. Professor Botkin still maintains that his view of the real character of Prokoffjew's case, into the details of which we entered in our article last week, is the correct one, and he has addressed a letter to that effect to the editor of the *Berliner Klin. Wochenschrift*, April 7, with special reference to Professor Lewin's lecture, reported in our last week's issue. Professor Botkin refuses to admit the insignificance of the petechiæ in the supposed case of plague, and states that he generally has met with a similar eruption in relapsing fever and in cases of typhus complicated with the former, and that he was accustomed to regard such eruption as a valuable diagnostic indication of relapsing fever, before spirilla were discovered in the blood. Professor Lewin having remarked in his lecture that it was difficult to decide whether such petechiæ were flea-bites in which the central puncture had faded, or not, Dr. Botkin replies that fleas must be very clever insects if they can pick out patients with relapsing fever and plague from among a number of other patients with infectious diseases. The learned doctors might have, we think, saved themselves some anxiety on this point if they had only *looked for the fleas!* Besides Professor Lewin, another Berlin physician—Dr. O. Lassar—has made a special journey to St. Petersburg, and come back rather like "the three wise Welshmen." His object was to see if, as Professor Botkin had asserted, certain alterations had lately occurred in the character of the typhoid diseases in St. Petersburg, leading him to conclude that disease-germs of a peculiar kind were probably prevalent in Russia. After visiting the various hospitals and carefully studying the cases, Dr. Lassar writes to the *Berliner Klin. Wochenschrift*, April 14 ("Notiz ueber den Genius epidemicus von St. Petersburg," page 219), "I cannot refrain from remarking that no facts came under my notice at St. Petersburg which could be used to support Botkin's idea of a *Genius epidemicus*, or disturbing element of a peculiar character."

CROUP AND DIPHTHERIA.

The question of the identity of these diseases, if we may now be allowed to call them such, was again before the Royal Medical and Chirurgical Society on Tuesday last. It would be hard to tell what may be the outcome of all this talk; but to a quiet onlooker it seems as if the question is about to be left very much where it was before. There are men who hold that croup and diphtheria differ *toto cœlo*; there are men who hold that membranous laryngitis is always diphtheritic, using the word in a purely specific sense. For this reminds us that the whole thing has been very much a play upon words—a battle of definitions. Διφθέρα means merely a skin, or pellicle, or membrane, if you like to call it so. If you add the customary "itis" or "itic," that is only to say that this skin, pellicle, or membrane is supposed to have an inflammatory origin. That is again to say it is not the product of the original division of the ovum, but something which comes after fœtal life. But this being said, all is said as far as etymology is concerned, and it does not in such matters help us greatly. The real question at issue is, whether there are two distinct diseases, similar in their symptoms, which we call "croup" in this country, and "diphtheria" abroad, but which may most conveniently be termed "membranous laryngitis"? It is nothing new to any one of us to know that there is such a thing as sudden swelling of the parts about the larynx, giving rise to difficulty of breathing of the most formidable character, without any membrane being formed. But who calls this croup? If you say that whenever a membrane is formed that is diphtheria, well and good; but who wants to argue the question? You call it by one name: I call it by another. Does that alter the facts? Nobody, we dare say, will maintain that calling a thing by any particular name will alter its qualities; which, again, is only a roundabout way of putting the hackneyed quotation that "the rose by any other name would smell as sweet." There is no doubt whatever that many cases of this sudden oncoming of difficult breathing connected with mischief in the larynx have been muddled up together. Some cases, no doubt, have been due to one set of causes, some to another; but here again we fall back to our former position. The term croup has been specially defined as membranous croup, and the various sets of cases which are known as laryngismus stridulus, etc., have not been confounded *malice prepense* with them. If people nowadays want to give a new name to a tolerably well-known disease, let them—that does not alter the facts.

But here we come to an altogether different part of the controversy. The question is this: Have we, when we encounter an affection giving rise to a false membrane on the fauces, larynx, and trachea, invariably to deal with one specific malady, more or less infectious and contagious (often highly so), apt to destroy life quite as much by its prostrating as by its suffocating powers—this being shown specially by its tendency to produce albuminuria, and its further hap to be followed even months after by marked and peculiar forms of paralysis? Or have we also cases of simple inflammation of the parts concerned, this inflammation tending to produce a false membrane apt to cause death by suffocation, but dangerous in no other way? Few who have seen much of these accidents to juvenile humanity would hesitate to say that they have seen cases where such a condition of things as that last described prevailed. But let it

be granted that these two are only very diverse forms of the same malady: is it worth while quarrelling about the name, whether specific or generic, which is to be given to each? Is it possible to say that membranous laryngitis can be produced by one cause, and one only, and that by the name of "diphtheria" it must always be known—meaning thereby a disease which involves at least some specific characters? This seems to us a very poor subject of discussion. Not so as regards a question raised almost incidentally in the course of the debate; for it appears to be of far greater importance to decide, if possible, why certain forms of sore throat assume certain characters than to argue about their names. The formation of a simple membrane of an ordinary character in the larynx may be denied with just as much success as the existence of false membranes in other situations, especially raw surfaces, under the influence of various irritants. But the real question at issue is, whether the conditions under which these false membranes may be produced can be so altered that the whole system becomes infected, either before or after their formation?—whether, in point of fact, the false membrane is due to the constitutional disturbance, or the constitutional affection due to the local one? With what experience we have had of the malignant form of the malady, we should say—Both views may be true, but the symptoms of fever arising from laryngitis are of one kind, and those from the specific disease diphtheria are of another. They have in common the symptoms arising from obstructed breathing produced by laryngeal and tracheal mischief, and it is this which tends to give rise to so much confusion.

The discussion on this occasion was a shade livelier than on the former one. It was commenced by Dr. George Johnson, who, adopting the view of the identity of the two maladies, told how he had been gradually weaned from his original faith as to their being separate diseases, to that he now held. He enforced his views, moreover, with a large selection from his own experience. Mr. Hutchinson, who followed, laboured chiefly to show that diphtheria was not a specific disease in the proper sense of the term; that the poison could be generated *de novo*, and in many respects resembled rather erysipelas; that the infected system did not produce the local affection, but was, in truth, itself poisoned by products of the local inflammation; and that the constitutional symptoms were in proportion to the extent of the local mischief. The mischief he thought most like diphtheria was hospital gangrene—a view in which Virchow coincided,—or the hospital sore throat often associated with the former. Dr. Squire held that croup and diphtheria were essentially different, and the question assumed a practical form in this way, that it was often necessary to decide whether to isolate the patient or not. On the other hand, Dr. Semple held most uncompromisingly for their identity, or rather that there was no such thing as croup, save as a symptom, and that membranous laryngitis was always diphtheritic. Sir William Gull said we might have a diphtheritic inflammation which was not diphtheria. The local phenomena might manifest themselves first, and the malady show itself of all intensities—sometimes slight, sometimes surely fatal. The idiopathic form mostly affected very young children; the specific, those which were older, and in them it was very apt to extend to the fauces. In some cases he had used mercury with success; for though a plastic inflammation might be good elsewhere, it was always bad in the larynx, and it might be an aim to, so to speak, make the inflammation of a worse type. Dr. Poore, on the other hand, held that membranous croup was a very rare affection, and that those who knew much of diphtheria seldom used the term. Finally, after the discussion had been somewhat uselessly prolonged half an hour beyond the usual time, it was again, on the motion of Dr. Dickinson, adjourned to another meeting.

LARDACEOUS DISEASE AT THE PATHOLOGICAL SOCIETY.

The special discussion on Lardaceous Disease at the last three meetings of the Pathological Society cannot be said to have either been very exciting as a debate, or to have added much to our knowledge of the subject discussed. This rather unsatisfactory outcome was evidently foreseen by the President of the Society at an early period of the discussion, the apologetic tone with which he introduced the subject on the second night evidently betraying the apprehensions of the Council that little real good would result. The plea advanced for the desirability of the discussion was the hope that some real increase to our knowledge of the disease must have taken place since the former exhaustive examination of the affection by the Society some ten years ago—a hope destined to receive but very scant realisation. Nevertheless, some advantage has been gained in bringing more prominently to the front what is now generally admitted to be true, and in suggesting the lines of further exploration in what is still doubtful or theoretical regarding lardaceous disease and its pathological relations. But this is certainly all the good that can be predicated of the three evenings' talk.

The opening paper by Dr. Dickinson, published in full in our columns at the time, was in great part a clear and able summary of what has been known regarding the subject for the last few years, but for that very reason was, as he himself said, merely a rehearsal "of a twice-told tale." He gave no new facts of importance, and where he did advance beyond the region of fact into that of theory, he soon found that he had but very few followers among the members of the Society. His reply, at the end of the discussion, was, however, probably the most interesting portion of the debate, dealing, as it did, with the criticisms which had been made on many of his own doctrines.

Lardaceous disease, as our readers know, consists essentially of a tissue-change affecting primarily the smaller bloodvessels and the adjoining parts, notably in the kidneys, liver, and spleen. The lardaceous material is found to be a nitrogenous or proteid body, with some alliances to both fibrin and albumen, and found to be very deficient in potash as compared with healthy tissues. This much regarding its nature seems admitted on all hands, but little else can be affirmed with certainty. Dr. Pye-Smith, indeed, asserted that its constitution had been fairly made out, as the substance could be isolated from the surrounding tissues by its property of insolubility in artificial digestive fluids which removed the adjacent materials. But Dr. Dickinson refused to accept this as a satisfactory method of procedure, as in the digestion of the surrounding tissues the salts and other important constituents of the lardaceous material would also be removed. Dr. Dickinson intimated his belief that the material is a modified form of fibrin or albumen deposited in the tissues from blood which is wanting in potash. In thus maintaining that it was of the nature of an infiltration instead of a degeneration, he met with much opposition, almost all the other speakers who alluded to this point favouring the degeneration hypothesis of its origin; and though his caution to beware of disputing about mere words can never be out of place, these two hypotheses in this instance are of quite opposite characters, and are as yet equally unproved. For though Dr. Dickinson instanced, in support of his theory, the fact that fibrinous deposits, as urinary casts and fibrinous vegetations on the cardiac valves, not unfrequently give the lardaceous

reaction with iodine, Dr. Pye-Smith and others declined to accept this as positive proof that such deposits were really lardaceous in nature. Indeed, the iodine reaction received most severe handling from several of the speakers, especially Drs. Greenfield, Pye-Smith, and Ralfe, and it was in fact admitted by Dr. Dickinson himself that, while most useful as a rough-and-ready test, it often failed when there was other undoubted evidence of lardaceous change, especially in very early and very late stages of the disease, and, on the other hand, that many other albuminous bodies showed a similar, if not quite so marked, staining after the application of iodine. Dr. Greenfield brought into notice methyl-aniline violet as an excellent staining reagent for lardacein. It had been first suggested for this purpose by M. Cornil, and was found to be much more distinctive than iodine, staining lardacein of a reddish-violet colour, while other allied tissues were made purple by it. Dr. Irvine pointed out that the iodine reaction might sometimes fail because the tissues were beginning to putrefy, and discharging ammonia and other gases which would interfere with the reaction. In such cases the reaction sometimes came out after the tissues had been soaked in spirit.

As to the etiology of the disease, the discussion placed beyond all doubt, if there was any, that prolonged suppuration is by far the most common cause. The only other condition which, either with or without suppuration, was proved to give rise to lardaceous change, is also one previously known to do so—viz., syphilis. Some doubt was expressed as to whether syphilis could induce the disease apart from suppurative processes, but the discussion on the whole favoured the view that syphilis, *per se*, was sufficient. No other causes for the lardaceous change were established, though it was suggested by some of the cases reported by Dr. Turner that malignant disease might possibly give rise to it. The same gentleman, however, pointed out that the result in such cases might be due to the ulcerative processes of malignant tumours. Sir Joseph Fayrer and Dr. Ralfe also maintained that they had seen cases of lardaceous disease in subjects who had been exposed to malarial influences, without any evidence of their having had syphilis or suppuration. The difficulty often felt in absolutely excluding the possibility of syphilis in the very few instances of lardaceous disease where there was no history of either it or of suppuration, was pointed out as a serious one in determining the etiology of such cases. As to the manner in which suppuration and syphilis produce the affection, only theories can as yet be advanced. Dr. Dickinson holds that the loss of potash in suppuration so influences the blood as to cause the deposition from it of the lardaceous material, which is certainly deficient in that element. But Drs. Greenfield and Pye-Smith pointed out that in suppuration there was an important drain of other substances, notably of white corpuscles and of phosphates; and Dr. Dickinson, in his reply, admitted that the waste of the white corpuscles might have an important relation to the subject as containing most of the potash of the blood. In regard to syphilis, all that can be said is that that disease probably prevents the development in the blood of the very material which is drained off in suppuration. Dr. Goodhart also suggested the probable importance of temperature in relation to the causation of the disease. As to the retrograde and curative changes incident to lardaceous disease, the discussion elicited some points of importance. The material itself is subject to fatty metamorphosis, especially in the liver, and sometimes also to calcareous changes. On the other hand, that organs which have been the seat of lardaceous change, and enormously enlarged, may return to normal limits, and apparently to normal structure, was abundantly testified by the remarkable cases narrated by Dr. Dyce Duckworth and Dr. Dickinson. The kidney, as pointed out by the latter, seems to be most liable to permanent injury by this disease, from the fact that it sets up secondarily chronic inflammatory mischief and fibrosis in the organ. The great remedy in cases due to syphilis is iodide of potassium in large doses over long periods of time; cod-liver oil, iron, quinine, and general tonics, as well as the beneficial influence of sea-air, have been found most serviceable in the cases due to suppuration. Mr. Hutchinson pointed out that in the improved surgical treatment of joints, and in Mr. Lister's improved methods of dressing wounds, we have reasons for the belief that the disease may be becoming less frequent among surgical patients, and may therefore have a declining interest to some pathologists.

It is unnecessary for us to refer at length to other points discussed in the debate, as in the closing speech of Dr. Dickinson (reported in another column), we have, from one who has himself contributed not a little to our present knowledge of the subject, a statement of what had been established or left still doubtful. He mentioned that he had found sulphate of indigo to be a good, though slow-acting, test for lardaceous material. In reply to Dr. Pye-Smith's criticism, he stated that when lardacein is treated with potash, the iodine reaction goes off, not only for the time being, but for ever, though the tissue may be washed free of the alkali, and even treated with acetic acid, so that the addition of potash intrinsically affected the material. Though the discussion had made clear only two causes—suppuration and syphilis,—he was inclined to think there might be some others of trivial importance.

The historical features of the question, introduced by Dr. Gairdner, of Glasgow, have at once a gratifying and a less pleasurable, though instructive, aspect to modern British pathologists. It is well known that Dr. Gairdner, Dr. Sanders, and their associates at Edinburgh, followers of Hughes Bennett, had, as early as 1850-54, worked at this subject of lardaceous disease, and had arrived at and recorded conclusions which agree very closely with all that is yet known on this matter, and differing from the views of the contemporary and some of the succeeding German observers which have been since disproved. We venture to suggest that some of the members of the Pathological Society itself might take a lesson from this; for we cannot believe that scientific intellect has degenerated in these islands within the last twenty years. Yet it is true that many of our younger pathologists are too ready to accept at once crude pathological doctrines bearing the name of a second- or third-rate foreign observer, simply because of their foreign paternity. We should be the last to attempt to discredit foreign pathology, but we should like to see more independence of judgment and originality of observation among workers at home.

DR. MATTHEWS DUNCAN'S CLINICAL LECTURES.

All motion, according to Mr. Herbert Spencer, is rhythmic action and reaction alternating with one another. This law applies, among other things, to certain changes which take place in the cerebral grey matter of the units forming the social organism, and which we call opinions. In our system of party government, we see popular feeling swaying backwards and forwards between opposing views, but on the whole moving onwards in the direction of what is true and right, for it is that only which can outlast the conflict. In a country such as England, which has had a long training in self-government, this oscillation has become small in extent; but in nations whose education in this respect is less advanced (as, for instance, our neighbours across the Channel), progress takes place in waves of action and reaction so large that they are apt to prove destructive. It

is the same in medicine. Many can remember when copious bleeding was a routine treatment for nearly everything; and the reaction from this produced in some quarters an almost equally routine treatment by the administration of so-called stimulants. And in medicine, as in politics, it is in the less advanced schools that waves of opinion are most sweeping. We see this in the speciality which is one of the latest born, though not least important: that of gynæcology. Fifty years ago, almost every woman who had a persistent pain in the lower part of her belly was supposed to have ovaritis. A reader of some works which have been published within the last few years might almost suppose that no such disease existed. Then came the speculum: by some abused as immoral and useless, by others lauded as the absolutely necessary means of diagnosis and cure of that which lay at the root of most of the ills to which women are liable namely, inflammation, erosion, and ulceration, of the cervix. The speculum wave passed over, and others succeeded. We need not chronicle them in detail. In some places we have seen the knife and scissors reign, ingenuity being expended in devising operations, rather than in diagnosing disease. Another school, misled by the temporary relief to pain which in so many diseases follows bloodletting, supposed nearly every patient to be suffering from congestion, and to need scarification or leeching. An epidemic of displacements has appeared. One author, writing on functional disturbances of the uterus, gravely informs the profession, as he treats of each symptom in turn, that its most frequent cause is flexion. In the sister island it would seem, from the writings of some, that the universal cure for uterine disease is the application of nitric acid. That the value of each and all of the methods of treatment alluded to has been exaggerated, is evident from the wide differences of opinion that exist about them, not merely as to their methods of application, or any such detail, but as to their usefulness at all.

But we may console ourselves under this apparently unsatisfactory state of things by the remembrance of a truism, on the importance of which Mr. Spencer justly insists, that not only is there "a soul of goodness in things evil," but "a soul of truth in things erroneous," that no belief can obtain wide acceptance unless there be some foundation for it. The errors in question arise mainly from superficial observation. All these methods of treatment have their value. What we want is more accurate diagnosis; to map out groups of symptoms and morbid states more and more from one another. Any work which helps us to this greater exactness is of far greater value than the invention of a new instrument or operation to cure a disease the nature of which is hypothetical.

Our columns during the past six months have contained contributions towards this end which we believe to be of singular value. We refer to the clinical lectures by Dr. Matthews Duncan, which have fortnightly appeared in this journal—lectures eminently practical and useful, containing matter not to be found in the text-books, and marked throughout by the full knowledge, and the constant striving after precision of observation and statement, which characterise all the writings of that distinguished physician. We cannot here refer to them in detail, but we may be allowed to comment on some especially important points.

Vaginismus was the subject of the first lecture—a condition long ago well known, and described by many good observers; to which Dr. Marion Sims gave a name, which has been generally adopted, and for which he devised an operation which he said would cure it. Some have tried this operation, and found it quite useless; others have praised it as loudly as the inventor. The truth is, as Dr. Duncan points out, that the symptom vaginismus includes affections of various kinds: that in really bad cases Dr. Sims' operation does no good; and that in slight cases it is unnecessary, for they can be cured by much simpler, less dangerous, and less troublesome means.

In a lecture on "aching kidney," Dr. Duncan has described a group of symptoms which is not uncommon, and the recognition of which is important. Although others have noticed this condition (an allusion to it will be found in Dr. Wilks' "Lectures on Diseases of the Nervous System"), yet we believe Dr. Duncan has been the first to give it a name and a description. In another lecture he has dealt, though in a somewhat fragmentary manner, with the subject of dysmenorrhœa—a most difficult, but interesting, topic. It is a symptom only, and one as yet little understood. Nature is not so simple as books. Dr. Marion Sims, and those who accept his opinions, say that it almost invariably results from obstruction; and another school would have it nearly always due to flexion. It was therefore not unnecessary for Dr. Duncan to remind his audience that demonstrable obstruction to the exit of fluid, or even of solid products, from the uterus, is seldom attended with acute pain, and sometimes with none; that a so-called "pin-hole" os uteri—one not big enough to admit a small sound—may yet allow menstruation to be perfectly painless; and that the supposed effect of flexions, in causing obstruction and damming back menstrual fluid, is a pure theory, plausible it may be, but as yet quite unproved. Dr. Duncan explains those cases in which the menstrual function is attended with the most intense agony, by supposing spasmodic contraction of the uterus to be present—a theory in the adoption of which we believe he at present stands almost alone. In lectures delivered, as these were, to students, controversy would of course be out of place, and therefore we cannot justly blame Dr. Duncan for not giving at length the reasons which have led him to adopt this view. Spasm cannot of course be proved post-mortem. The spasmodic diseases which Dr. Duncan cites in illustration, merely show this: that muscular spasm may lead to pain or functional disturbance. But as to dysmenorrhœa, we would respectfully ask, Is the spasm of the body or of the cervix? And where is it—at the internal os, or the external? Is it certain that in the cases cured by dilatation there was no organic stricture or mechanical occlusion of the canal (*e.g.*, catarrhal swelling of the cervical mucous membrane, congenital narrowing of the canal, etc.)? These are questions which we think must be answered, with good evidence, before the spasmodic theory can be accepted as more than a hypothesis. But the lesson which Dr. Duncan puts first when speaking of this subject cannot be too much borne in mind: that pain in menstruation is a symptom only, and a symptom due to many different causes. What we want for the treatment of dysmenorrhœa, is not new machines for straightening, or cutting, or stretching the cervical canal, but knowledge, which shall enable us to differentiate from one another the manifold conditions which may cause the symptom we are called upon to relieve.

We have touched on only a few of the many points of interest in these lectures. The symptom of coccygodynia is here analysed more fully than has been done before. Missed abortion is another subject an account of which is not to be found in the ordinary text-books; and the lecture on hepatic disease with pregnancy is one full of suggestion. But space forbids us to say more. We will only add, that if our remarks should lead any who have not done so, to study these lectures, we are sure that they will thank us for calling attention to them.

ACADÉMIE DE MÉDECINE.—M. Tillaux has been elected a member of the section of Anatomy and Physiology of the Academy.

THE WEEK.

TOPICS OF THE DAY.

THE difficult question of avoiding the pollution of rivers is not one which is confined to this country alone: increase of population and the development of manufactories are producing abroad the same evils from which England is suffering; and some time since the French Minister of Public Instruction authorised M. Gerardin to undertake some researches with a view of suggesting a remedy for increasing river pollution in France. The results of his experiments, which have extended over a large number of years, have lately been published, and in the main confirm the decision arrived at by the Rivers' Pollution Commission in this country. Downward filtration is, he thinks, the only system yet known which is successful in thoroughly purifying sewage water, and in rendering it fit to flow into our rivers and brooks. In the case of the Croult, a river which flows into the Seine at St. Denis, serious pollution had arisen from starch works and sugar factories on its banks; in 1874 the proprietors of some starch works at Bourget arranged to make the water from their works flow over a piece of land drained for 500 metres, but the ground was infected, and the water retained its injurious properties. Next year the water was diverted over a piece of land twenty times as large, and the success was complete. The water is distributed in gutters by very fine streams, so as to be spread over the whole of the ground, by which means a sufficient oxidation is secured.

Last week, Sir Richard Wallace added to his already numerous charitable donations to Paris a new hospital. The building, which is very handsome and complete in every respect, has been erected at the sole expense of the liberal founder, and was opened quite privately in the presence of Lord Lyons and a few of Sir Richard Wallace's friends. In addition to the most careful arrangements for in-patients, there are a department for out-patients and a complete baths establishment. In opening the building, which is to be called the Hertford British Hospital, Sir Richard explained that his object in founding it had been to raise a permanent memorial to the generosity and excellent qualities of the late Marquis of Hertford, and at the same time to give to the British sick poor of Paris a comfortable home in which they can have their maladies cured or alleviated under the care of experienced physicians.

In face of the repeated accidents which are now occurring through the adoption of the most recent mode of locomotion —the bicycle—the local Government Board have considered it desirable to issue a series of model by-laws, under the Highways and Locomotives Amendment Act of the last session. These by-laws can only be made by the county authorities, and before being put in force in any county will have to be approved by the Local Government Board. Bicyclists are required to carry a light after dark, and to give notice of their approach by sounding a whistle or bell, and are further to dismount, and remain dismounted, at the request of any rider or driver whose horse may have become alarmed at their appearance. Any contravention of these by-laws will render the bicyclist liable to a penalty not exceeding £2 for each offence.

Some time since, Keighley earned an unenviable notoriety for its stubborn opposition to the Vaccination Acts; and it would now seem that the town of Banbury is anxious to make itself conspicuous in a similar direction. The local branch of anti-vaccinators there have, it is asserted, devised a new plan for opposing and stultifying the Vaccination Acts: they have opened an office a few doors from the public vaccination station, where they offer to supply gratis a mixture of borax and hot water for the purpose of washing out the vaccine matter immediately after the operation has been performed. If this statement be correct, and it has been publicly announced, it will be singular indeed if the law should be found powerless to deal with the offenders.

The Volunteer Ambulance Department, which was formed eighteen months ago, with the permission of the Government, for the purpose of training volunteers in ambulance work, and thus creating for the Army Medical Department a reserve which might be depended upon in time of war, is progressing in a very satisfactory manner. No less than 300 certificates of efficiency have already been awarded; and last week the classes conducted by Surgeons F. Egan and Norton were inspected at the Guildhall by Surgeon-General Munro, C.B., in the presence of the Lord Mayor. At the close of the inspection Dr. Munro expressed his satisfaction at the manner in which the men performed their duties, and his desire that volunteer medical officers should be drawn into closer connexion with the medical service of the regular army. He considered it expedient that a Volunteer Medical Department should be constituted; and he stated that the subject had been submitted to the Government, who had promised to give it their favourable consideration. If established, the department would form a reserve to take the place of the Medical Department of the Army in the event of large numbers of the latter being sent out of the country in any great emergency. The proceedings terminated with the issue by the Lord Mayor of the certificates of proficiency awarded on the occasion.

The adjourned inquest concerning the death of the young woman which recently took place in St. Mary's Hospital from glanders, resulted in the following special verdict: "That Emily Susan Hulbert died in the St. Mary's Hospital from the mortal effects of glanders, contracted at 16, Colville-mews, Bayswater, her sister having previously died of the same disease. The jury are further of opinion that the provisions of the Contagious Diseases (Animals) Act of 1878, with reference to the outbreak of glanders and to the treatment and disposal of the carcases of horses suffering from such diseases, have not been duly carried out. It further appears that the provisions of the Slaughter-house (Metropolis) Act of 1874 have been violated by the carrying on of a trade by an unlicensed knacker. The jury further desired that the facts given on evidence should be brought before the Privy Council, and such steps taken to avoid, if possible, the recurrence of such accidents as these in future."

A very praiseworthy effort has been made in Worcester to obtain for that town the advantages of a staff of trained nurses. An influential meeting was held there last week, under the presidency of Earl Beauchamp, who was supported by Sir E. A. H. Lechmere, M.P., Canon Barry, Lady Beauchamp, and Lady Lechmere. The chairman, in advocating the establishment of such an institution, explained the steps it was proposed to take—viz., to provide a home for thoroughly trained nurses, to be employed in nursing both among the poor and in private families, and to supply nurses to dispensaries, poor-law unions, and charitable institutions; to train up nurses, and to encourage the formation of district nursing associations among the sick poor. Resolutions were passed, before the meeting separated, for carrying out the views of the promoters.

The Council of King's College have decided to name their physical laboratory the "Wheatstone Laboratory," in honour of Sir Charles Wheatstone, who was for some years Professor of Experimental Philosophy in the College, and to which he bequeathed his valuable collection of physical apparatus. The laboratory was established in 1868, and about 250 students have already been trained in it in the various branch-

of practical physics. There are special practical classes, which have been well attended, for the Bachelor of Science and the Preliminary Scientific M.B. examinations of the University of London, and also special classes for evening-class students who are engaged in business during the day-time. In all the classes there are not less than forty students at present engaged in practical work in physics in the "Wheatstone Laboratory."

The members of the Metropolitan Asylums Board last week visited the Stockwell Asylum to inspect the improvements which have recently been made in the small-pox wards. These wards have been closed since June last for necessary repairs and cleaning, the South London cases being meanwhile treated in the other asylums of the Board. Dr. Bostick, C.B., conducted the visitors over the hospital, and pointed out the improvements which have been effected. It is now intended to re-open this hospital and the Homerton Asylum, in order that the Hampstead Asylum (which contains nineteen patients), the Fulham Asylum (which contains eighty-four), and the Deptford Asylum, (which contains 119) may be relieved, and if possible closed, in order that they may be thoroughly cleansed. The visitors expressed their entire satisfaction with the work which has been carried out, and pronounced the hospital to be in thorough working order.

We much regret having to record the untimely death of Dr. Frederick Lyndon Attwood, M.R.C.S. From the evidence adduced at an inquest held by Dr. Hardwicke on the remains of the unfortunate gentleman, it appears that he committed suicide at Hampstead Heath by shooting himself. Mr. J. M. Maddox, solicitor, of Pall-mall, deposed that he had known the deceased for years. The last time he called at his office he seemed in a very low and despondent state, and said that he was going to Sudbrook Park to put himself under the care of Dr. Lane. Mr. Maddox had no doubt that the deceased was of unsound mind at the time he killed himself. It will be remembered that Dr. Attwood was in charge of an ambulance during the late Russo-Turkish war, and was taken prisoner by the Russians, enduring great sufferings before he was given up. The jury having heard all the evidence produced, returned a verdict that the deceased committed suicide whilst of unsound mind.

Last week, Mr. George Clive, M.P., in the presence of a large and fashionable company, laid the foundation-stone of a new cottage hospital for Ross, which is estimated to cost several thousand pounds, and, according to the plans, bids fair to be a very handsome and useful building.

THE PHARMACEUTICAL SOCIETY *v.* THE LONDON AND PROVINCIAL SUPPLY ASSOCIATION.

This case, heard before the Lord Chief Justice and Mr. Justice Mellor (sitting in Banco), was an appeal from the County Court of Bloomsbury. The action was brought to recover penalties under the Pharmacy Act, 1868, against the defendants for retailing poisons, they not being duly registered under the Act as chemists. The Association carries on business as a co-operative store, and keeps, amongst other departments, a department for the sale of drugs, and is registered and incorporated under the Joint-Stock Companies Act; and the first question raised was whether the above Act applies to corporations or incorporated associations, as well as to "any person." Further, the Association has in its service duly registered druggists for the sale of medical drugs, and in the present case the sale was by one of these duly qualified druggists; and thus another question arose, whether, even supposing the enactment to apply to incorporated associations, it applied to such sales by registered druggists. On the part of the Pharmaceutical Society it was contended that the enactment applied to all persons, corporate or non-corporate, and that the Association, as a "person," was liable for keeping open a shop for retailing poisons, even though the sales were by duly registered assistants. In these circumstances the question arose, whether the penalties were incurred by the Association by a sale of a poisonous drug by one of its duly registered assistants. The Court below had given judgment in favour of the defendants. On the 23rd inst. the Lord Chief Justice delivered a written judgment to the effect that the Association was liable for the penalties. He observed that the object of the enactment was to prevent any shop being kept open for the sale of poisonous drugs, except under the control of a duly qualified chemist and druggist, and this object was not attained unless the master or principal was himself such a duly qualified druggist. Suppose such a shop kept in partnership by a grocer and a druggist—there would be no security that, in the absence of the druggist, the grocer might not dispense the poisonous drugs. And so as to duly qualified assistants—their employment did not relieve the principals from the penalties incurred by keeping open such shops, they themselves not being duly registered. The Association came within the scope and object of the enactment, and the case came within the mischief and evil against which it was directed. It was objected, indeed, that the enactment did not apply to the Association, as it was not "a person"; but upon a consideration of the scope and purpose of the Act, he thought the objection could not prevail, and that the enactment was fairly applicable to an incorporated association. He thought, therefore, that the Association was liable for the penalties sued for in this action, and it must be borne in mind that it was only a civil action for penalties, and not in the nature of a criminal proceeding. A written judgment of Mr. Justice Mellor, which arrived at the same result, was also read. Leave was given to the defendants to appeal, as the question involved is one of great importance to co-operative associations, for if the judgment is upheld it must greatly interfere with, if not entirely close, the drug departments of such associations and societies.

THE DENTAL LICENCE OF THE ROYAL COLLEGE OF SURGEONS.

It is said notice has been given that at the next meeting of the Council of the Royal College of Surgeons of England a motion will be made to admit to the "examinations *sine curriculo*" for the dental licence of the College all dentists on the Dental Register, or at least all candidates for the licence who were in practice as dentists in England at the time of the passing of the Dentists Act. At present, by the regulations of the College, all candidates "who were in practice or who commenced their education as dentists before September 8, 1859, and who at the time of the passing of the Dentists Act were practising in England," are admitted to examination on the production of certain certificates, such as—of moral and professional character, of not having employed advertisements, and of other particulars. But by the regulations of the Edinburgh College of Surgeons, candidates "who were in practice in Scotland before August, 1878, and apprentices who commenced their education in Scotland before August, 1875," are admitted to examination on production of certain certificates; and the Irish College admits candidates to examination up to August, 1881, on the production of certain certificates, "if they have been in practice in Ireland five years before the date of application." In the regulations of the sister colleges is to be found, we imagine, the exciting cause of a motion proposed to be brought forward before the Council of the English College. We can hardly believe, however, that the proposal will really be made, much less that it will be seriously entertained, for it would be

obviously most unjust to those dentists who have gone to the labour and the expense of time and money required to obtain the dental licence. Every man who has since 1859 chosen to become a dentist has known perfectly well the terms upon which he might obtain the L.D.S. of the College, and so take rank as a professional man; and, if he ever thought or inquired about the matter, must have known that the portal to the "dental profession" would year by year be made narrower, rather than wider and more easy. Comparatively few men indeed have selected to undergo the labour and expense of the curriculum and the examination for the dental licence; but we must refuse to believe that the College can, regardless of its own dignity and reputation, be so flagrantly unjust to these few as to now fling open its doors, and admit to its "examinations *sine curriculo*" for its dental licence any man who has obtained admission to the Dental Register, and who can produce the certificates required by the regulations of 1859.

THE DISCUSSION AT THE OBSTETRICAL SOCIETY ON THE USE OF THE FORCEPS.

THE following is a *précis* of the argument for discussion on the use of the forceps, to be introduced by Dr. Barnes at the meeting of the Obstetrical Society of London, on May 7:—The theme set by the Council is "On the Use of the Forceps and its Alternatives in Lingering Labour." The terms exclude from discussion the use of the forceps to expedite labour on account of convulsions, hæmorrhage, prolapse of the cord, or other accidental complications. The forceps comes into competition with its alternatives—expectancy, ergot, lever, or compression of the uterus—under two leading orders of cases—1. When the head is delayed in the pelvic cavity; 2. When the head is delayed at or above the brim. The chief contest turns upon the use of the forceps in the second order of cases. This involves discussion of questions—1. Does lingering labour occur so as to entail danger to mother or child during the first stage of labour? 2. Is the application of the forceps ever necessary or useful before the full dilatation of the cervix uteri? It will be contended that those who rarely use the forceps more frequently resort to ergot or craniotomy, especially where the head is arrested above the reach of the short forceps. *General Propositions*: 1. In lingering labour, when the head is arrested in the pelvic cavity, the forceps will almost always be better than its alternatives. 2. In lingering labour, when the head is engaged in the pelvic brim, and where it is known that the pelvis is well formed and the head normal, the forceps will be generally better than its alternatives. 3. In lingering labour, where the head is resting on the pelvic brim, the liquor amnii discharged, and it is known that there is no disproportion or only a minor degree of disproportion, even although the cervix uteri is not fully dilated, the forceps will generally be better than its alternatives. 4. In proportion as the head is high in the pelvis, in the brim, or above the brim, the necessity, the utility, and the safety of the forceps become less frequent. 5. As a corollary under the conditions of the preceding proposition, increasing caution is called for in determining on the use of the forceps, and greater skill in carrying out the operation.

DEATH OF DR. C. MURCHISON, LL.D. EDIN., F.R.S.

THE profession will learn with great surprise and regret that Dr. Murchison died, suddenly, on the 23rd inst., at his residence in Wimpole-street. Only three short weeks ago we announced, it will be remembered, that Dr. Murchison had been appointed Physician-in-Ordinary to the Duke and Duchess of Connaught and Strathairne. It was the latest of the long list of honours and rewards which, beginning during his student-days in Edinburgh, Dr. Murchison had gained by his talents, and his remarkable industry and energy; but certainly, had his life been longer spared, it would not have been the last or the highest of the honours his work would have won from the profession and the public. Dr. Murchison was best known to the profession at large by his works on "Fever" and "Diseases of the Liver," but to those who live in London he was, perhaps, most markedly designated by his indefatigable exertions on behalf of the Pathological Society. Meanwhile, all we can do is to give an expression to the grief which all must feel for such an untimely termination to what was, comparatively speaking, only the opening of a brilliant career.

THE SPREAD OF ZYMOTIC DISEASES.

IN his annual report on the health of the Cannock district, Wolverhampton, during the past year, Mr. F. E. Manby, the Medical Officer of Health, remarks that zymotic disease was not unduly prevalent in the neighbourhood. This class of disease, he adds, is called preventable, and so, theoretically, he admits it is, but until a complete registration of sickness is compulsory, and a much greater degree of intelligent assistance is accorded by the public generally, he thinks we can only hope to limit, not exterminate its ravages. Mr. Manby suggests that if a medical certificate that each child was in good health, and had not been exposed to any known zymotic influence during the holidays, could be required at both public and private schools at the commencement of each term, and if a systematic inquiry could be made, say at the beginning of each week, in each school, as to causes of absence, a very great step would be taken towards the checking of zymotic diseases, since it is certain that the gathering together of children at schools is the principal means of spreading these amongst the population. The suggestion, though undoubtedly a good one, is scarcely capable of being carried into effect, since parents, especially among the humbler classes, would object to the expense which would be entailed upon them by having to employ a medical practitioner to examine their children and furnish the necessary certificate.

THE HEREFORD COUNTY AND CITY LUNATIC ASYLUM.

THE report of the Medical Superintendent of the Hereford County and City Lunatic Asylum (Mr. T. Algernon Chapman) for the year 1878 is again satisfactory. The death-rate of the establishment did not exceed the average, viz., 7·6 per cent. on the average number of patients resident, and there was a total absence of zymotic and contagious diseases during the period under notice. The admissions were of fully as unfavourable a type as usual: of 71 admitted only 27 presented any probability of recovery; nevertheless, during the year 25 patients were found to have improved sufficiently to justify their discharge, and at the date of the report 8 males and 7 females were stated to be in a fair way to recover. The only unusual death recorded during 1878 was that of an old man, who accidentally fell and fractured his thigh. The weekly charge for patients during the year is stated to have been nine shillings and sixpence per head during the first quarter, and ten shillings during the last three quarters, or an average weekly cost of about ten shillings and twopence per head for the whole period.

TYPHUS FEVER AT BERLIN.

SINCE January 1, 1879, there has been a rather disquieting number of cases of exanthematic typhus at Berlin. Up to March 19, 295 cases had been reported with forty-two deaths, and though the majority of cases occurred in prisons and workhouses there were thirty-two in private dwellings. From March 20 to 26 there were thirty-two new cases. It is interesting to note also that on March 1 there were distributed among the larger hospitals of Berlin eight cases of

relapsing fever, and fourteen of trichinosis. Lecturers on medicine should keep their eyes open, and take a run to Berlin occasionally, to study, from the life, diseases which they have to describe to their class, and have not always seen for themselves.

THE HEALTH OF DUBLIN.

We understand that a Government inquiry is shortly to take place into the sanitary condition of Dublin and the high death-rate in that city. It is also, we believe, arranged that the Commissioners to be appointed for the purpose of holding the inquiry are—Robert Rawlinson, Esq., C.B., C.E., Chief Engineering Inspector of the Local Government Board for England, and Dr. F. Frederick MacCabe, Inspector of the Local Government Board for Ireland for the Cork District. The time for the holding of the inquiry has not yet been fixed.

PATHOLOGICAL SOCIETY OF LONDON.

On account of the large number of communications waiting over, there will be an extra meeting of this Society, on Tuesday, April 29, for the transaction of ordinary business.

MEDICAL PARLIAMENTARY AFFAIRS.

Incidence of Rating for Sanitary Purposes.—Mr. A. Brown, commenting upon the method of levying rates for sanitary purposes under the Public Health Acts, said that the present system worked unequally in certain localities, and interfered with the carrying out of necessary works for the disposal of sewage and the improvement of water-supply. There were great difficulties in the way for the formation of special drainage districts. In urban districts the local authority has power to make separate assessments for certain districts, and this power ought to be extended to rural districts. Those who directly benefited by improved drainage and water-supply ought to bear the chief burden of the expense, as recommended by the Committee appointed to consider the provisions of the Water Act. Those who urged that the parish should be the unit for rating purposes had not put forward, he thought, sufficiently strong reasons for supporting their views. If the cost of drainage works were to fall upon those who derived benefit from them, he believed the opposition aroused in villages would be greatly diminished. At Liverpool and elsewhere there were local acts by which the cost of drainage works fell only upon those who were benefited thereby. He concluded by moving for the appointment of a Select Committee to inquire into the matter. Mr. Sclater-Booth remarked upon the difficult nature of the proposal, and said that the subject was carefully considered by the Local Government Board. He recommended that the motion be dropped for the present session, and a more concise and definite Bill on the subject be introduced next session.

Vaccination.—On Monday, April 21, in Committee of Supply, on the vote of £381,123 for the Local Government Board, Mr. C. Denison asked what had been the number of vaccination prosecutions undertaken during the last year, and whether the opposition to vaccination was increasing throughout the country. Mr. Sclater-Booth explained that the working of the Vaccination Act was generally satisfactory, and the total vaccination returns were within 5 per cent. of the total birth returns of the country, the deficiency being mainly confined to the metropolitan district, and being accounted for by the enormous population of that district. Now that attention had been drawn to that defect, he believed a considerable improvement would be shown for the future. No prosecutions were instituted by the Government, but only by the local boards of guardians, who, in certain cases, might have allowed their zeal to outrun their discretion. Resistance to the Act was not at all on the increase, though no doubt some people would never cease their opposition so long as they lived. In answer to further questions put by Mr. Whitwell, the right hon. gentleman went on to say that the next report of the Local Government Board would contain a good deal of information on the subject of vaccination, and he would take care that some review should take place of the mode in which lymph was collected. There would also be some statement of the experiments made with a view to satisfy the desire of many people who thought an attempt should be made to get fresh vaccine matter from the cow. All possible means were taken to secure that the vaccine matter should be of proper quality, and that it should be perfectly free from the slightest taint of impurity. It was subject to the most rigorous examination, and everything that was not perfectly pure and transparent was immediately rejected. It must be remembered, however, that in addition to the lymph supplied by the department, much vaccination was done from arm to arm. The vote was ultimately agreed to, as was a vote for £15,064 for the Lunacy Commission.

On Tuesday, April 22, the Rivers' Conservancy Bill passed through Committee of the House of Lords, with a few amendments, chiefly relating to the incidence of rating for improved drainage.

In the House of Commons, on Wednesday, April 23, Dr. Cameron obtained leave to bring in a Bill to encourage vaccination by providing facilities for the optional use of animal vaccine.

FROM ABROAD.

DISORDERS OF THE BLADDER IN FEMALES.

A CLINICAL lecture on this subject, delivered by Dr. Goodell, Clinical Professor of Diseases of Women and Children at the University of Pennsylvania (*Boston Medical Journal*, February 6), contains some observations well worthy of notice.

These affections, Prof. Goodell observes, vary considerably from those of the male, and therefore call for separate attention. Thus, cystitis or catarrh of the bladder is far more frequent in them; but, on account of the absence of a prostate, and the short and capacious urethra, they are, as a general rule, less seriously affected by it. Affections of the bladder may, in women, arise from precisely the same causes as in men; but some uterine disorder, acting on the bladder, either directly or through reflex action or irritation, is by far their most common source. Next in frequency is, perhaps, hysteria; and, thirdly, is the class of injuries sustained by the bladder during labour. It is by no means always easy to ascertain the cause when a woman complains of frequent or painful micturition. When this arises from catarrh of the lining membrane of the bladder, the recumbent posture gives but little ease; while, when displacements or tumours of the uterus are the cause, it gives marked relief. The bladder should be sounded for stone, while its base is examined by the index finger passed up into the vagina. Large stones can be felt and even outlined through the anterior wall of the vagina, while a small one will rarely escape detection by this double manipulation.

In allusion to a case of urgent and frequent micturition which he had ascertained to depend upon the pressure of the body of a heavy retroverted womb, delivery having taken place a year before, Dr. Goodell observed that the remedy here is a pessary; but when there is great tenderness of the neck of the bladder, the Smith-Hodge pessary, which is the best of all, is too hard. The softest pessary that can be found should then be used (Gariel's air bag being one of the best), and belladonna in some form should be administered. "Let me say, in passing, that cases of frequent and painful micturition often occur in overtasked girls, or in sterile women of feeble frame, whose wombs are of natural size but anteflexed. Now, I do not think that, in the majority of these subjects, the dysuria is due to the pressure of the fundus of the womb on the bladder. On the contrary, I believe the anteflexion to be the natural condition of the womb in virginity and sterility, and therefore needing no local treatment. Vesical distress in these cases is neurotic or emotional, and arises from nervous exhaustion, produced in the one by brain-cramming, and in the other by sexual excess. The bladder is hysterical, if so you choose to call it; and the motto of a hysterical bladder, as regards local treatment, should read *noli me tangere*. Building-up remedies and antispasmodics are here needed, together with belladonna by the mouth to allay the local irritation. And let me here say that belladonna is a good stand-by in almost every form of vesical irritation. I usually give it according to the following prescription, which I can recommend:—Atropiæ gr. j.; acid. acetic. gtt. xx.; alcohol, aquæ, āā ʒiv.—

four drops before each meal in a wineglass of water; to be increased or diminished according to the constitutional effect."

But the most troublesome and obstinate of all affections of the female bladder is chronic cystitis, which usually arises from lesions produced by labour. It may, however, arise from other causes. "The worst case I ever saw came from a simple over-distension of the bladder." In the case used for illustration of the lecture the cystitis was produced by prolonged pressure of the child's head on the neck of the bladder; and the great suffering of the patient was relieved, after all the usual means had been tried in vain, by forcible dilatation of the urethra. After her second labour the patient applied in order to undergo dilatation again, owing to the recurrence of the cystitis, she having to pass her water thirty or forty times during the day and many times in the night.

"This treatment of cystitis by rapid dilatation of the urethra is somewhat empirical, although not entirely irrational. It presupposes the presence of a fissure in the neck of the bladder, which may or may not exist. But it over-distends and temporarily paralyses the urethral and vesical sphincters, permitting the escape of the urine with as little pain and spasm as possible. In the majority of cases the dilatation is followed by great relief—often by a lasting cure. In the latter case we would attribute success to the previous existence of a fissure, healed, as are analogous anal fissures, by over-stretching. Since the fact is generally admitted that fissure of the sphincter ani often succeeds labour, it is by no means improbable that, in like manner, fissures may be formed in the urethral mucous membrane. But you must take this on trust, for I have never yet been able to feel what I could swear to as a fissure in the neck of the bladder. Let me show you how to perform this operation. First etherise the patient, for the pain it causes is otherwise unbearable. Next, pass in a uterine dilator, and gently stretch open the urethra. It distends readily, so as to allow me to coax in very slowly my little finger, which has been well greased with carbolated oil. I can feel the sharp edge of the vesical sphincter give way before it, and now it is wholly in. Withdrawing it, I slowly work in my index-finger, which will sufficiently distend the urethra, and which goes in still more easily. Now I am able to feel the inner surface of the bladder, which is not thickened or rough, as one would suppose from the severity of the symptoms, but smooth and velvety. I always take this opportunity to explore the bladder for stone or other foreign bodies; for the finger is a sound with brains in it, and therefore worth much more than the ordinary metallic sound. Usually, the upper margin of the meatus is slightly lacerated by the operation, and sometimes free bleeding takes place. This, however, I have always been enabled, with one exception, to stay by a piece of absorbent cotton moistened with Monsell's solution. . . . . Candour compels me to mention one objection to this operation—the possibility of permanent incontinence following it. In my own cases this has never happened; but I saw one example of it, in which the thumb had been forced into the bladder.

"But supposing that the dilatation does no good. Put the woman to bed, and drain off the urine by a self-acting catheter, as the Skene-Goodman. It is so short that it barely goes in beyond the neck of the bladder, and the holes in its bulb are so small that the thickened and softened mucous membrane is not likely to be sucked and torn off, as it will be in the ordinary catheter. If this should fail, try a milk diet and rest. Inject into the bladder, though never more than an ounce at a time, a solution of the nitrate of silver, slowly increasing the strength by two grains every other day until thirty grains to the ounce are reached. Keep the solution in the bladder not longer than five seconds, and, if the pain be great, use a hypodermic of morphia. Weak solutions of carbolic and salicylic acids are highly spoken of, as are a two-grain solution of quinia and a five-grain one of chlorate of potash. Braxton Hicks lauds a two-drop solution of hydrochloric acid, injecting an ounce at a time daily, and repeating it until the urine flows off clear. He then follows it with one ounce of water in which from one to two grains of morphia are dissolved. One hint about the use of the ordinary flexible catheter in these cases. When drawing off the urine do not let the tip of the instrument go much beyond the neck of the bladder, else the mucous membrane will flap down violently upon it and be bruised. When fluids are injected, the tip of the catheter need not enter the bladder at all, but preferably should stop just short of the neck. Sometimes every kind of treatment will fail, and then we may be obliged to put the bladder at rest by making an artificial vesico-vaginal fistula.

"There is one more disturbance of the bladder peculiar to females, and that is incontinence of urine, which may be found to follow even such slight succussions as are imparted by coughing, laughing, or running. This generally happens in women who have borne many children, but I have seen it in unmarried women of weak fibre. Apart from ferruginous preparations, the best remedy that I know of for this infirmity is a combination of tincture of belladonna, fluid extract of ergot, and the tincture of nux vomica. If this fail I should recommend the application of carbolic or even of nitric acid to the urethra, with proper hygienic treatment."

REVIEWS.

Ueber die Folgen der Verletzungen auf Eisenbahnen, insbesondere der Verletzungen des Rückenmarks. Von Dr. JOHANNES RIGLER. Berlin: G. Reimer. 1879. Pp. 124.

On the Sequelæ of Railway Injuries, especially Injuries of the Spinal Cord. By Dr. JOHN RIGLER. Berlin: G. Reimer. 1879. Pp. 124.

THE author of this interesting *brochure* has obviously had considerable opportunities for observing the sequelæ of railway accidents. He relates the effects of various kinds of accidents on railway *employés* themselves; in this respect it differs from most other works of the kind, which treat of the effect of similar accidents on the general public. The writer believes that, as the result of their occupation, there is a peculiar tendency among railway officials (drivers, brakesmen, guards, etc.) to acquire, in varying degrees, a predisposition to nerve disease—a disease which may be described as "irritation of the nerve-centres," and which shows itself in a greater or lesser degree almost as a natural consequence of their occupation. This disease, as a result of some unusual shock from any cause, may come on very early and in a severe form. Drivers are more affected than those whose occupation allows of their riding in carriages, the springs of which, as well as the cushions, tend to lessen that perpetual jarring which is inseparable from the best built engine that runs. This acquired "nervous irritation" is even more remarkable when we consider that all railway *employés* are selected from the strongest and healthiest of their class.

It may also be worthy of notice that, since the railway companies in Germany have been rendered liable by law for compensation, the number of persons who sustained permanent damage has greatly increased, and in a ratio out of all proportion to the number of accidents. Thus, in the five years preceeding 1871, six persons only are supposed to have been permanently damaged in thirty-four accidents, while during the five years succeeding 1871—during which year new and more stringent legislation came into force—thirty persons were permanently injured in nineteen accidents. A careful study of the individual accidents of the first-named period showed them to be not less serious than those of the second period; and the only conclusion at which we can arrive is, that the increased liability of the companies has given rise to increased demands on their resources, often in cases, perhaps, where such demands ought not to be made.

The most frequent causes of the kind of injuries here described are either collisions, or trains running off the rails: the former may vary very widely in severity, from the merest jolt to fatal concussion; the latter, seldom fatal, is, however, generally more prolonged, and may, and does, lead to serious consequences, according to the speed at which the train is travelling, and also to the nature of the "way." It would seem to us that should a traveller escape immediate death or injury, he is more likely to escape entirely after a collision than a traveller who, in consequence of a train getting off the line, is severely shaken; for though such a shake is very unlikely to prove immediately fatal, it is more liable to be followed by after-consequences. This is paralleled in gunshot wounds: when a man is struck by a ball travelling at a high rate of velocity, it produces a less serious wound and less nervous shock than a ball travelling at a low velocity. A ship of war is more shaken by a shot which cannot penetrate its side, than by one that pierces it. In the

first instance, the part struck bears all the brunt; in the second, the whole body or the whole ship applies itself to resist the enemy. Mr. Erichsen, we believe, teaches a similar doctrine—that a man who gets a broken leg is less likely to suffer from spinal concussion than another who, under similar circumstances, seems to have escaped injury: no doubt the broken leg represents the effect of the shock, its direction, and its intensity. Leaving comment, however, we must apply ourselves to an abstract of the author's work.

The author has divided the book into two parts. The first treats of external injuries, and of injuries of the viscera (excluding brain and cord). Of this little need be said. The second treats of nervous injuries and their sequelæ. This part is divided into three sections, the first of which gives a series of cases in which the nerve lesion was obvious. The second contains a series of cases in which nerve disease was proved to have been only simulated; and the third section contains cases where it remained doubtful whether organic disease of the cord had occurred, or whether it was merely malingering. The difficulties of such cases, as everyone knows, are immense. When we find an apparently strong man, as the result of a slight shake, complaining of deep-seated pain in his back, of shooting pains and pins and needles in his legs; of not being able to hear the whistle of a railway-engine without having rigors; of inability to apply himself to his work; of sleeplessness,—and yet looking the picture of health and with a good appetite,—our faith is naturally exercised, and it is almost impossible to resist the suspicion that the man is trying to humbug us. This feeling is largely kept alive by well-known cases, in which, after a successful verdict with damages, the said symptoms have gradually yielded to a treatment which, before the verdict, had proved worse than useless.

On the other hand, our author, a railway surgeon of many years' experience, admits that, as the result of their occupation, railway-engine mechanics become the subjects of an altered nerve condition, which he calls "irritation of the nerve-centres." It is the perpetual jarring, and shaking, and noise, which lead by degrees to this change, and which, under the influence of some unexpected shock, as in an accident, still further or more completely upset the nervous equilibrium, which ends, so to speak, in the condition known as "railway spine." This mental condition he names "Siderodromophobia,"(a) and defines it as "a more or less intense spinal irritation, coupled with a hysterical condition and a morbid disinclination for work, which, as the result of shock, occurs among railway *employés*, who, in consequence of their occupation, are specially predisposed to it." The author is unable to state whether this irritation is simply a congestion of the spinal cord, or whether it is to be referred to a dynamically altered nerve condition.

He sums up, as quintessence of his researches, as follows:—

1. Localised anatomical lesions of the spinal cord may occur as the direct result of railway accident, even without any visible (external) evidence; or in the form of the so-called "railway spine," but only when the injured part is turned towards the point from which the concussion proceeds.

2. Injuries of the cord and its membranes, such as occur in railway accidents, when they do not immediately kill or tend to death, generally tend towards cure, so that the power of working may be recovered to a considerable extent, although it is never entirely regained.

3. Railway officials, as the result of accident, often become the subjects of a morbid bodily, as well as mental condition, siderodromophobia, which chiefly manifests itself as "spinal irritation," so called; and which may very easily be confounded with disease due to anatomical lesions of the cord.

4. Clever simulation (of disease) by those who have been concerned in railway accidents has, in consequence of the new laws, become remarkably common; previously existing disease has been falsely attributed to accident on the one hand, while, on the other, real (but slight) injury has been grossly exaggerated.

5. A single examination, indeed, repeated examinations, often do not suffice to qualify a surgeon to pronounce an opinion on a given case. Long and repeated observation of the alleged injury, and an accurate knowledge of the previous general health, as well as a conscientious weighing of all concomitant circumstances, are always needed.

(a) Σιδηρόδρομος—railway. (Modern Greek.)

On the Neglect of Physical Education and Hygiene by Parliament and the Educational Department as the Principal Cause of the Degeneration of the Physique of the Population, of the Excessive Infantile and General Mortality, and of many Diseases and Deformities. By Dr. Roth. London: Baillière and Co., 20, King William-street, Strand. 1879.

The aim of this pamphlet, as avowed by its author, is to show that Parliament, the Vice-President of the Committee of Council on Education, and several scientific societies, have been in vain appealed to, during the last five-and-twenty years, to introduce a branch of education which would improve the physique of the population, reduce mortality, disease, and deformity, and lessen the expense of maintaining hospitals and workhouses. He shows that £100,000 is spent annually in teaching children to sing, in the elementary schools, whilst nothing is expended on scientific physical education and hygiene. Dr. Roth has instituted inquiries in many continental cities, and in the present pamphlet he gives the result of these, and a history of the development of physical education in various foreign countries. No one can deny that there is much truth in the views expressed by Dr. Roth, and it is to be hoped that his efforts to induce Parliament to vote a sum to carry out the branch of education which he advocates so warmly, may ultimately be crowned with success.

FOREIGN AND COLONIAL CORRESPONDENCE.

AMERICA.

PHILADELPHIA.

Yellow Fever: Question of Value of Quarantine, and Hygienic Regulations; Recommendations of the Board of Medical Experts—Pleuro-pneumonia of Cattle: Measures of Prevention—The Ambulance System in New York—The Sale of Bogus Diplomas in Philadelphia.

In brief continuation of my previous allusions to the yellow fever investigations, I may state that experiments will probably be instituted to prove the effect of artificially produced frost in limiting the spread of the disease. A lady who had already interested herself pecuniarily in furthering the investigation made by the American Public Health Association—Mrs. Elizabeth Thompson—has offered to assist the effort to substantiate the proposition of Professor Gamgee, of London, to provide a refrigerating ship, to be propelled by steam, and fitted up with powerful refrigerating and ventilating apparatus, to be stationed at New Orleans, and moved thence from point to point as required, and test the effect of low temperature in extinguishing the germs of fever on board infected ships, and in other localities. It is urged that the proper means should be placed without delay in capable hands, to prove, once for all, whether frost actually kills or only temporarily stuns the deadly virus. The question is interesting and important, and as such deserves all possible investigation. So far as non-intercourse with infected ports is concerned as a means of prevention, Dr. Vanderpoel, Health Officer at New York, has recently given his views that such a procedure is unnecessary, as it would seriously endanger the interests of commerce. He believes that communication might still be kept up, provided that all vessels be subjected to strict quarantine. He considers yellow fever a disease of exotic origin, and that a strict observance of hygienic laws will keep it away from any locality, provided the germs of the disease have not been carried into it under favourable conditions of heat and moisture. The primary evil in the southern towns in the recent epidemic was in their imperfectly managed quarantine, unsatisfactorily, capriciously, and incompletely extemporised to meet the exigencies of the hour. He claims that the principal centre of propagation is Havana, whence it spreads to other West Indian ports. This city is notoriously defective in its hygienic conditions; the merchant marine are compelled, by the peculiarity of the location, to lie in the focus of all the impurities and stifling exhalations, and, as a result, no vessel can remain there any length of time without becoming herself infected, and the crew the victims of the malady. It is to be hoped that some international arrangement will be entered into by Spain and the United States, with a view to

examine the sanitary surroundings of Havana, and their relations to the propagation of the scourge. From the month of June, 1878, until the end of September there was not an interval of three days without cases of yellow fever being in New York bay. During all that period not the slightest excitement or alarm was manifested in the immense community of New York at its near proximity, so perfectly were the quarantine regulations enforced.

The Board of medical experts, authorised by Congress to investigate the epidemic, have recently submitted their report to the Congressional Committee on the same subject. They recommend also that the inquiry should be extended to West Indian ports, and that two medical experts be authorised to proceed to the West Indies, there to make a more thorough study of the disease than has yet been undertaken, and that they be accompanied by an experienced microscopist. In a single season (1878) more than a hundred thousand of our people were stricken down with the fever, and twenty thousand lives sacrificed. According to the testimony of existing records, yellow fever has invaded the present territorial limits of the United States in eighty-eight different years. In seventy-seven of these eighty-eight years there is evidence, more or less complete, of importation, and in seventy-one of these the evidence points to the West Indies as the source of the infection. In four years it was traced to Mexico, and in scattering years to Honduras and Demerara. Every epidemic of yellow fever that has occurred in the United States has been in chronological sequence to the increased prevalence of the disease in countries to the south of us, with which at the time we were in commercial communication. There are no facts which establish the proposition that yellow fever has become indigenous or epidemic in any part of the United States; yet facts seem to warrant the inference that in some of our southern cities the specific poison of the disease, hidden away from the cold in sheltered places, may live through a mild winter, and give rise during the succeeding summer to scattered cases of the fever. It would seem to be theoretically probable that these scattered cases would in their turn give rise to an epidemic. But the proof that they have ever done so is not conclusive.

The Board of experts, under a full conviction that the legal enactments of different countries in respect to the sanitary management of ships, and the sanitary memoranda from time to time distributed for the guidance of owners and masters of ships, have all failed in accomplishing the great end of making them healthy, and that they still perform the unenviable *rôle* of pestilence-carriers, find that the recommendations most worthy of confidence are:—1. Surveillance of ships at the time of sailing from infectious ports to any part of the United States. 2. Their inspection, detention, and disinfection (when found necessary) upon reaching our coast. The following scheme of quarantine, constructed from a purely medical standpoint, is recommended:—Two classes of medical officers are suggested—one class for foreign service, and one class for home service. The former are to be stationed at the various foreign ports having commercial relations with the United States, where yellow fever, cholera, or other epidemic infectious diseases prevail. Their duties would be to acquaint themselves thoroughly with diseases at any time prevalent in or around the respective places to which they are assigned, and to report accordingly to the proper authorities at Washington. They should also obtain the medical history of ships trading to or from their respective ports in regard to any previous occurrence of yellow fever or cholera, etc., on board. So far as local sanitation is concerned, there is much testimony to show that the effluvium emanating from the bodies of the dead may be associated with infection. Prompt interment of those who die from yellow fever is recommended, and the assembling of persons at funerals is discouraged. No drugs are known which can be relied on as preventives of yellow fever or cholera. The estimate is that perhaps 20,000 deaths occurred during the late epidemic. Of this number about three-fifths were minors and two-fifths adults, representing a loss of 12,600,000 dollars, according to a basis of valuation of life adopted by the Committee. It is believed that at least 120,000 cases of sickness from yellow fever took place during the same period. The loss of time of these patients was a public loss, and should be considered in any computation on the subject, being estimated as amounting in all to 1,500,000 dollars. To this sum should be added the value of the labour diverted from production or useful activity by attendance upon 120,000 sick persons—say 600,000 dollars. The total losses to the country are estimated at from 100,000,000 to 200,000,000 dollars.

A prohibitory ordinance of the Canadian Government against the importation of American cattle has recently revived the discussion of the subject of pleuro-pneumonia. I see it stated that the Principal of the Ontario Veterinary College, who is considered excellent authority on the subject, says that the disease is perfectly unknown in Canada in a contagious form, and that it is also unknown in the Western States of the Union. The alarm seems to have arisen from the reported examination of cattle at Long Island by three veterinary surgeons, from which they inferred that pleuro-pneumonia had a foothold on the Atlantic coast. One of these had been commissioned by the Canadian Government to make the examination; and his report, telegraphed to England, caused the first sensation on the subject. It is said that the western cattle, which mainly are exported, are free from the affection. The disease now seems to be confined to such narrow limits as to be easily controlled, and is not likely to extend, if placed under proper inspection, with power to quarantine the infected localities and to slaughter the diseased animals. The Governor of New York has issued an order to the Sheriff of Queen's County, ordering that strict quarantine be made in such cases, the animals not being allowed to leave the premises, nor the milk to be sold. An official has been appointed by the Governor, who will examine into the conditions of the cattle and their housings in every country of the State. The work will be an immense labour, but is likely to be well done. The disease is said to be so contagious that even men attending the cattle affected with the disease have been known to carry the contagion a distance of several miles, and spread it among cattle removed even that distance from the infected place. The cattle plague is also exciting the attention of Congress; and a committee is now taking testimony on the subject, at the same time that the New York inspectors are vigorously at work slaughtering the infected animals. It is said that the first case of pleuro-pneumonia observed in cattle in this country was introduced as far back as 1848; and since that time several State Commissions have made the disease an object of inquiry, with special reference to prevention. Some years ago carbolic acid was pronounced a specific for disinfection of stables and by admixture with the drinking-water; but although the New York Commissioners have advocated its employment, its claims as a specific have not been universally recognised. It is supposed that the best measure of prevention of the spread of the disease is the more radical one now adopted near New York, of quarantining inspected cattle and slaughtering diseased ones, at the State's expense.

The ambulance system has become so thoroughly organised a branch of the public service, in New York especially, that I am induced to make some allusion to it, inasmuch as it constitutes one of those quiet, efficient means of benevolent relief that is not brought prominently into popular notice. The application of the system in times of peace was an extension of usefulness based on the good results that attended its employment during our great civil war by the Northern Army Service. The Department of Charities and Correction of New York introduced it in 1869, by the equipment of a single waggon. At the present time Bellevue Hospital alone has eight of these ambulances in constant use, provided with conveniences for the transportation of two patients at a time, and it sometimes happens that two are picked up by the same waggon on one trip. These ambulances are supplied with all necessary medical and surgical facilities, which the surgeon, who invariably accompanies each waggon, can at once apply. A sliding stretcher enables the patient to be moved without pain or inconvenience. It is the duty of every patrolman of the police force to report the particulars of every case of injury under his observation. A brief despatch is telegraphed to the Central Police Office, which is repeated to the most convenient hospital. A regular series of signals is established to facilitate this intercommunication, and an understanding exists between the hospitals as to the localities to which ambulances are to be sent. The horses are kept harnessed to these vehicles at the hospitals, and the attending surgeons and drivers are on the alert at all hours of the day and night. During the prevalence of excessively high temperatures, as in the heated term of last summer, they were kept in constant employment.

As inquiries are frequently made as to the sale of diplomas in this city to those who have not attended lectures, and as the respectable medical colleges of Philadelphia are affected by the scandal attached to the disreputable conduct of one irregular school, I will, as briefly as possible, state the conclusions at which the Mayor of this city has arrived, as the result of an investigation into its legal status. This gentleman has recently received much praise from the Philadelphia County Medical Society, for his sympathy in this matter with the best men of the profession here, although he has been powerless to remedy the evil, and it is doubtful whether any legal measures can be taken as yet against the institution in question, until its charter is repealed. The Mayor finds the following Acts of the Legislature relating to the College:—

February 25, 1850.—An Act incorporating the Eclectic Medical College of Philadelphia.

May 7, 1855.—A supplement to this Act, omitting the word "Eclectic."

March 21, 1865.—A supplement providing that the titles of the American College of Medicine in Pennsylvania (previously incorporated) and the Eclectic Medical College shall be changed to the Philadelphia University of Medicine and Surgery. (This was doubtless intended to create a confusion of identity with the respectable and time-honoured University of Pennsylvania.)

February 18, 1870.—A supplement conferring additional powers of teaching in all branches of the arts and sciences, of conferring the usual degrees, of establishing a hospital, etc. (It would puzzle almost any member of the profession to state the location in which either college or hospital pursues the tenor of its way, from his own knowledge of the fact.)

March 22, 1872.—Two Acts reciting that a Committee of the Legislature has ascertained that the Philadelphia University, or American College of Medicine, and the Eclectic Medical College of Pennsylvania have been engaged in the unlawful sale of medical diplomas to persons not qualified, etc., and repealing the two charters and supplements.

An appeal was taken to the Supreme Court, and it was decided that the Legislature had no right to repeal a charter, but the proper course to pursue was to apply for a writ of *quo warranto*, and set out the particular instances of grievance. This has not been done, and the College is, therefore, virtually in existence still. Both branches of the State Legislature, however, adopted, a few days ago, resolutions calling upon the Attorney-General to proceed legally against this irregular school, with a view to secure the repeal of its charter. As was stated in one of our local papers recently—"The career of this institution has been infamous, and it is rather a sad commentary upon the laxity of our laws that, despite the earnest efforts of reputable physicians, backed by the Councils and press of Philadelphia, a clique of scoundrels should have so long disgraced this city by their open trade in degrees and diplomas which enabled the holders to pursue, under cover of law, a business that must have resulted in untold suffering and many deaths. In this city there are several men who purchased diplomas at the Pine-street mill, having previously been shoemakers, painters, gamblers, etc. Almost without exception they settled down as professional fœticides."

Prize Questions of the Royal Belgian Academy of Medicine.—1. The Academy offers a gold medal of 800 fr. for the best essay on "The History of Stricture of the Urethra, under the triple point of view of its etiology, of its pathological anatomy, and of the relative value of the different modes of treatment." 2. A prize of 5000 fr. for "The elucidation of the History of the Diseases of the Nervous System, and principally of Epilepsy." 3. A medal of 1000 fr.—"Determine, supported by precise observations, the Effects of Alcoholism, in its material and psychical point of view, both as regards the individual and his descendants." 4. A gold medal of 800 fr.—"A comparative investigation of Rachitis, Osteomalacia, and the *Cachexie Ossifrage* (the etiology, symptomatology, nature, and treatment) in the Domestic Animals, supporting the opinions advanced, as far as possible, by preparations of pathological anatomy." 5. A medal of 1000 fr.—"Determine the nature of the Influence of Innervation on the Nutrition of Tissues." The essays to be written in French, Latin, or Flemish, and forwarded to the Secretary of the Academy, Brussels.—*Gaz. Hebd.*, April 18.

REPORTS OF SOCIETIES.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

Wednesday, March 19th, 1879.

S. Cartwright, F.R.C.S., Vice-President, in the Chair.

On Cysts of the Mouth.

Mr. Francis Fox read a paper on "Cysts of the Mouth." After alluding to the oral mucous membrane being not infrequently the seat of cystic disease, owing to the numerous small glands and follicles in this situation, and that the mere occlusion of the duct of one of these may give rise to the formation of a more or less extensive tumour, Mr. Fox observed that these cysts may be congenital, or may arise subsequent to birth in consequence of some morbid action set up in the mucous membrane. The term "ranula" has been, and still is, applied to all cystic formations in the sublingual region, and he could not suggest a more appropriate appellation, provided we do not associate the name with any special pathological change, but regard it as simply descriptive of the impression which such tumours make upon the observer. Ranula, then, may depend upon (*a*) obstruction of the outflow from the minute follicles or conglobate glands; (*b*) it may be connected with the Whartonian, or one of the larger ducts, or (*c*) it may be in no way connected with the mucous structure itself; (*d*) it may depend upon inflammation of the bursa, which is placed between the genio-hyoglossi muscles. Similar cysts to these ranulæ occur in the mucous membrane of the lips and cheeks, and are often met with on mucous surfaces in other regions of the body. Their treatment is simple. If due to local inflammation, a small puncture will quickly effect a cure; or, if the orifice of the duct can be discovered, a small probe may be inserted; or if arising from a salivary calculus, an incision into the duct will permit the easy removal of the concretion. If the enlargement be excessive, a seton of a few threads of silk may be passed through the tumour, so that the contents will gradually escape, and inflammation be set up. This may give rise to an excessive amount of inflammation, and occasion much secondary mischief, and a better course of procedure might consequently be to puncture the tumour, and then apply caustic to its internal surface. It may be necessary to remove a portion of the cyst-wall, in which case the more vascular portion of the tumour should be avoided. Ranula connected with the duct of the submaxillary gland is dependent upon dilatation of its coats, in consequence of obstruction at its orifice or in some part of its canal. Calcareous deposit is the commonest cause of obstruction, and these salivary calculi attain often a very great size, and are amenable to the same treatment already mentioned. There is still some difference of opinion with regard to the exact pathology of these sublingual cysts. Some maintain that they are invariably connected with the large salivary glands; others, that they occur quite independently of these ducts, and are, or nearly resemble, "mucous cysts." The fluid which they contain does not resemble saliva in its chemical composition, and there is an entire absence of the sulpho-cyanide of potash, which is so constantly found in true salivary secretion. Ranula situate in the submucous tissue is generally larger, and closely resembles sebaceous tumours, and contains a thick putty-like substance composed of epithelial scales, cholesterine, and oil globules. It is of rare occurrence, and the cyst-walls are usually very thin and more or less adherent to the neighbouring tissues. The removal of the entire sac and contents is the most satisfactory treatment where practicable. Ranula arising from an inflamed bursa should be treated on the principle of destroying the secreting surface, and thus curing the disease. Sanguineous or venous cysts are of rare occurrence in the mouth; when, however, they do occur, they are usually seen on the lips near to their free border. Sir James Paget regards them as "dilated portions of the bloodvessels shut off, as it were, from the main stream." They are usually congenital, and as a rule do not increase in size. When small and superficial they may be dissected out, but when deep-seated a ligature or seton will often effect a cure. Cysts known as dentigerous cysts are

usually confined to the alveolar portions of the maxillæ, and do not come within the scope of the present paper. Cysts formed in the tongue itself, and consisting of dilated mucous follicles, are difficult to diagnose, and may readily be mistaken for malignant disease. A puncture with a grooved needle will generally solve any doubt as to their nature. Their treatment consists in opening the sac, and irritating the lining membrane by means of a probe or otherwise.

Mr. Ranger showed a contrivance consisting of an artificial palate with gold wire septum and guttapercha pad, to support the flattened nose of a patient the subject of syphilis, who had lost portions of the hard palate and cartilages and bones of nose.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 8.

John Erichsen, F.R.S., President, in the Chair.

Discussion on Croup and Diphtheria.

(*Continued from page 439.*)

Dr. Wilson Fox said that the report itself contained a complete discussion of the whole subject. Moreover, the Committee were not asked for their opinion: that would have been merely the views of a certain number of individuals. In point of fact, the great difficulty had been to get the evidence on which to found the report. He would also point out, in reference to what fell from a previous speaker, that the disease called croupous pneumonia had no relation whatever to croup or diphtheria beyond a somewhat unfortunate name, nor was this kind of pneumonia always that which occurred in diphtheria. In membranous disease of the larynx, the membrane might be either a slough or it might be a mixture of fibrine with epithelium and leucocytes. From what he had seen when working at the subject he thought that most, but not all, of the forms of exudation from mucous membranes, especially in the throat, would be traced to zymotic causes; but he would appeal to one special disease to prove that this was not always so. The malady called membranous bronchitis was comparatively rare, but perfectly well known. It was essentially chronic, and rarely killed, yet the sloughs cast up were, in point of fact, identical with those found in diphtheria, consisting, as before said, of fibrine, epithelium, and leucocytes. Moreover, mechanical injuries could produce a similar membrane, as by injecting ammonia into the air-passages of a dog. In this way complete casts of the tubes could be obtained, often extending much further than the fluid could have gone. None of these inflammations were septic, yet they distinctly affected the air-passages, and they were unmistakably membranous. Nevertheless, it was hard to say whether any large number of cases of laryngitis were of this kind or not. In most cases it was scarcely possible to exclude the effects of bad air and water, and these were undoubtedly the most common causes of membranous laryngitis. Colds and catarrhs did not, as a rule, produce membrane; hence the great difficulty was to exclude the possibility of all septic influences. Nevertheless, from analogy, he believed that simple membranous laryngitis could and did occur.

Mr. Holmes was surprised at Mr. Parker's criticism. The object of the Committee was to determine, if possible, whether such things as croup in the ordinary sense, and diphtheria, existed apart and separately. To that they had returned the very definite answer that croup as a symptom might exist without diphtheria, and diphtheria without croup; or, as was most frequently the case, they might coexist in the same individual.

Mr. McIntyre said that after years of practice and reading he had come to the conclusion that the two were distinct, but not of necessity separate. He also referred to certain cases occurring in his own family.

Dr. Sansom said that Mr. Parker seemed to conclude that zymoses were identical, but this was far from being the case. Membranous croup might be due to many causes, not to diphtheria alone; nor, though zymotic, need croupy symptoms be diphtheritic. As an illustration of this he narrated the cases of certain children. One had been long under treatment, and suddenly developed croupy symptoms; tracheotomy was performed, and death followed. There was a false membrane in the trachea, thin diffluent pus underneath, and an empyema in the chest which had probably given rise to the local mischief. Again, croupy symptoms might be due to other causes than membrane. Two children of the same parents had been ill for some time: both had croupy symptoms. In one, tracheotomy was performed, and some mucous material was ejected. The child died. There was no membrane, but intense injection of the bronchi right to the end of the tubes. The other child had similar symptoms. Here there was no tracheotomy, but death followed, and nothing was found beyond that in the other. The evidence of zymosis was strong, but there was no diphtheria.

On the motion of Mr. J. Hutchinson, seconded by Dr. G. Johnson, the discussion was then adjourned.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 15.

Thomas Bryant, F.R.C.S., Vice-President, in the Chair.

Adjourned Discussion on Lardaceous Disease.

Dr. Ralfe exhibited specimens showing the action of iodine on different forms of albuminous matter. It had been generally stated that while iodine deeply stained acid albumen, it had no action on ordinary coagulated albumen. He, however, showed a specimen of the latter, in which, although the general surface was unaffected, the ragged edges had been rendered brown by iodine. He had also brought specimens of de-alkalised albumen or syntonin, of ordinary blood-fibrine, and of alkaline albumen or casein, all showing staining by iodine, of a more or less red or brownish colour. The iodine staining he thought was a physical condition, and not a chemical reaction—the first specimen, in which the staining was seen only on the fractured edge, supporting this view. These facts proved that the iodine staining as a test for lardaceous disease has been much overrated. It only indicates the presence of some form of modified albumen, but cannot distinguish lardaceous material from allied substances. During the discussion there had been little reference to the fatty changes that are frequently seen in the lardaceous material. He would ask whether this fatty change was an essential part of the lardaceous disease itself, for the fatty products seemed to differ both in physical and chemical properties from those ordinarily resulting from impaired nutrition as a consequence of disease and obstruction of the small arteries. The suggestion Dr. Stephen Mackenzie had made at the last meeting, of a possible connexion between lardaceous material and the hyaline condition of vessels he described, he (Dr. Ralfe) thought a valuable one. The hyaline condition might be the first step in a departure from the healthy condition, resulting in lardaceous disease. Like Sir Joseph Fayrer, he also had seen cases of lardaceous disease of the intestines and other viscera without any history or evidence of previous suppuration or of syphilis, in persons who had been exposed to malarial influences.

Dr. Pearson Irvine was of opinion that the iodine test failed often in the post-mortem room from the fact that the viscera were beginning to undergo decomposition, ammonia and other gases thereby interfering with its action. In such cases the staining came out after the viscera had been kept in spirit for a time. As to the blood-changes occurring in lardaceous disease, he had recently seen a case in which, during life, the blood presented the characters found in leuksemia, the organs after death giving well-marked lardaceous reaction. He had brought with him microscopic preparations, showing very clearly fatty degeneration of lardaceous material—a degeneration which he believed to be common. He would still hold the view that the lardaceous material was the result of a degeneration, not of an infiltration process. As to the curability of the affection, there were frequent instances in surgical cases where, after operation and the stoppage of the suppurative processes, the enlarged lardaceous organs decreased greatly in size.

Mr. Carrington had examined the post-mortem records of Guy's Hospital in reference to the question whether lardaceous disease was general or local when found in syphilitic patients who had not had suppuration. During the last twenty-four years there had been thirty-six such cases of syphilis with lardaceous disease without any history of

suppuration or of bone disease, although eight of them presented slight scars. In 4 of these cases 4 organs were lardaceous, in 13 cases 3 organs, in 12 cases 2 organs, and in 7 cases only 1 organ was found affected. The disease would therefore seem to be general in such cases, and he found no evidence of any necessary connexion between the presence of gummata and of the lardaceous deposit in an organ.

Dr. DICKINSON, in reply, agreed with the last speaker as to the tendency of lardaceous disease in such cases to be widely distributed, and not confined to gummata or their neighbourhood. Alluding to the remarks of Dr. Gairdner and of Dr. Wilks, he said he had avoided historical points from a desire to be brief, otherwise he should have called attention to the researches of Gairdner, Hughes Bennett, and other Edinburgh workers, whose conclusions had been published about 1851, and are much more in accordance with the present doctrines than are those of the first German investigators of this subject. In reference to the iodine reaction, which had been criticised by Dr. Greenfield and other speakers, he said that, as regards lardaceous casts, he had found them both in the urine and also *in situ* in the kidney substance. But he quite agreed with a statement made by Dr. Grainger Stewart some time ago, that, though the casts sometimes give the reaction brilliantly, yet in the majority of cases of lardaceous kidney the casts give no reaction at all. They are usually found only when the disease is far advanced. He had also found, like Dr. Greenfield, that sometimes in non-lardaceous forms of Bright's disease the casts were stained brown by iodine; but the colour was not so deep as in the casts of lardaceous kidneys. The explanation of their staining, suggested by Dr. Greenfield, viz., prolonged soaking in acid urine, was probably the true one. He (Dr. Dickinson) had no experience of the aniline violet, though he had tried probably all other aniline dyes, most of which produced some faint staining. Indigo blue (sulphate of indigo) he had found the test next best to iodine, the blue indigo colour being retained for any length of time by lardaceous material, whereas on healthy tissues the blue became green; but this reagent was more troublesome than iodine, as requiring longer time for the colouration of the affected tissue. Though the iodine reaction was, on the whole, the best practically, it undoubtedly had certain disadvantages. The first was that there was not a new distinctive colour produced with lardaceous material, but only an intensification, or deepening, of the colour produced on non-lardaceous tissues. It presented, therefore, no definite line of demarcation between the two. And again, it was sometimes equivocal, for the reaction depends greatly on the degree of acidity, and hence non-lardaceous tissues, as albumen and fibrin, may show it when rendered acid. In the very early and the very late conditions of lardaceous disease of an organ, the reaction was often most unsatisfactory. A careful scrutiny by an educated eye would often detect the lardaceous condition of such organs when there was no reaction with iodine at all. In cases, also, where the organ is in process of getting rid of the lardaceous material, the test was often at fault. As to the question of infiltration *versus* degeneration, we must take care not to fall into a discussion about mere words. What he meant by saying that the change was of the nature of an infiltration was simply that in the disease there was an addition to the material tissues, which was certainly the fact, as was seen in the enlargement of the liver, spleen, etc., and, moreover, an extract of quite a distinct character could be got from the affected organs. Dr. Greenfield had put the question, why was the disease not universal if it were an infiltration? But almost all diseases had affinities to certain organs and tissues—a fact which could no more be explained than could the formation of particular secretions by the different organs. He had also been asked why he had fixed on the loss of potash by suppuration as a cause of the disease, to the neglect of the great waste of the white corpuscles of the blood. It is a fact that lardaceous material is wanting in potash, and in 1876 he had himself suggested that the lardaceous change might be largely connected with the loss of white corpuscles in suppuration. The white corpuscles contain most of the potash of the blood, the soda being in the serum. He had, however, found, as the result of numerous examinations of blood, that the white corpuscles, in spite of their great waste, were increased in suppuration, while the red were fewer and of a paler colour than normal. The white corpuscles were also increased in advanced lardaceous disease, while in cases where the lardaceous disease was retrograding the white corpuscles were fewer than normal. Dr. Pye-Smith had mentioned the fact that, if lardaceous material be exposed to the action of a caustic alkali, there would thereafter be no brown reaction with iodine, and he asked whether this did not depend entirely on the formation of a colourless iodide. Now, it was perfectly obvious that, if a lardaceous organ were soaked in potash, then the colourless iodide of potassium would be formed, but if the organ were washed quite clear of the potash, or even saturated with acetic acid, still the reaction would not return on the application of iodine, so that the addition of the potash must have caused a radical change in the lardaceous tissue. Dr. Pye-Smith had also spoken as if we knew pretty well the chemical constitution of lardaceous material, referring to its non-digestibility in gastric juice, and stating that by this property Kühne had separated it for analysis. But this process got only a nitrogenous residuum, and was far short of what we want, for all the salts had probably been removed in the process of digestion of the surrounding tissues. He (Dr. Dickinson) held that de-alkalised fibrin, or syntonin, had some affinity to lardaceous disease.. Dr. Pye-Smith had maintained that the former was soluble in weak acids and digestible in the gastric juice, and therefore quite different from lardaceous material. But he (Dr. Dickinson) had found, as a matter of fact, that de-alkalised fibrin was far less soluble than the ordinary fibrin, and was therefore nearer lardaceous material in this respect. Dr. Pye-Smith had also said the disease could not result from an infiltration of (modified) fibrin because the phenomena of inflammation were present when fibrin was exuded. But fibrin was often thrown out apart from inflammation, as in dropsical limbs, or on the valves of the heart without endocarditis. On the general aspect of the question nothing had been advanced during the discussion tending to show that lardaceous material is not some constituent deposited from the blood. Whether it is fibrin, or albumen, or something between the two, was still doubtful. It resembled albumen in its being sometimes found in epithelial cells, but differed markedly from it in its insolubility. It resembles fibrin in several points,—its insolubility in water, its tendency to affect bloodvessels, and to be found in sites where fibrin is also deposited, as in the forms of vegetations on the valves of the heart, and of renal casts. The material, however, had quite distinct characters of its own, an important one being the absence of potash. In regard to the causes of this affection, the discussion had made clear that by far the chief one was suppuration. It was also attributed to syphilis independently of suppuration. Of course these two causes were often combined, but he was of opinion that syphilis *per se* caused it. The remarks of Dr. Turner were important in this connexion. That gentleman had found a few cases of lardaceous disease with no history of suppuration or of syphilis. But one of these patients presented a large scar, and some of the others had admitted having had gonorrhœa, though not syphilis. His own experience was that patients would often acknowledge gonorrhœa, but deny the graver disorder, so that syphilis was not necessarily excluded in the cases referred to. These two causes, suppuration and syphilis, were practically the only ones recognised in the discussion. No speaker had attributed it to chronic rheumatism or indefinite cachexia, or had regarded it as occurring idiopathically. Some years ago he thought he had seen lardaceous disease developed in a few cases of chronic albuminuria from non-lardaceous kidneys. But he was now convinced he had put the cart before the horse in judging of the sequence of conditions in these cases. As to the way in which suppuration produces the disease, there is an enormous loss of certain constituents of the blood, notably of white corpuscles, carrying away potash, and the lardaceous material may be regarded as a deposit from the residuum. But how does syphilis act? Almost any impairment or change in nutrition might be caused by syphilis, and he would ask whether syphilis might not prevent the development in the blood of that which was removed by suppuration. It was quite likely there might be other causes than suppuration and syphilis, but he thought they must be very few, and relatively unimportant. Dr. Goodhart had referred to temperature as possibly an important consideration in regard to the development of this disease. He had been recently told by Dr. Moxon that

under feverish states, as in typhoid, large lardaceous organs may become small. Is the lardaceous material burnt up by the fever, as the healthy tissues are? As to the curability of the disease, he had seen some very striking cases due to syphilis, where, although the liver at one time was so large as to reach almost to the groin, complete retrogression to normal limits took place under the influence of iodide of potassium in large doses. In one case of his own of this sort, which he had at first regarded as hopeless, but which greatly improved under treatment, he had an opportunity of examining the viscera after death from another cause, several years afterwards, when he found the liver reduced to normal size and of healthy appearance. Neither it nor the spleen gave any reaction with iodine, though the latter organ was a little enlarged. He had often found that lardaceous disease affecting the kidneys was much less curable than when affecting other organs, as the liver or spleen, probably on account of the fibrous changes resulting in the kidneys. He had, however, seen one very striking case of widely pervading syphilis, where the kidneys were evidently lardaceous. There was polyuria, the urine containing half albumen, and there was dropsy of the face and legs, etc., but under the influence of large doses of iodide of potassium (forty-five to sixty grains daily), taken for two years and a half, the patient ultimately became, and has continued, apparently quite well, with no trace of renal mischief or of lardaceous disease elsewhere. When the disease resulted from suppuration, retrogression was less frequent than in the syphilitic cases, but many cases improved markedly. Sea-air certainly seemed beneficial, as had been mentioned by their President. He recollected the case of a boy with lardaceous liver and spleen as the result of hip disease. The liver reached almost to the groin, and the spleen to the umbilicus. He was treated with general tonics, and was sent year after year to a convalescent home by the seaside, and at the end of ten years the enlarged viscera had contracted almost to their normal size. A boy at present under his care had been treated for three weeks with cod-liver oil and general tonics, along with small doses of liquor potassæ, and in the time mentioned his liver had decreased by one inch in vertical measurement. In the syphilitic cases iodide of potassium was the great remedy; in the suppurative cases the salts of potash are often disappointing, but sometimes do good taken along with cod-liver oil, iron, quinine, and other general tonics.

The CHAIRMAN proposed a vote of thanks to Dr. Dickinson for his two able addresses in opening and closing the discussion. If nothing very new had been elicited in regard to lardaceous disease, the views regarding its causes, course, and terminations had been rendered more clear and precise.

RAPID HYPERTROPHY OF HEART.

Dr. GOODHART exhibited a heart taken from a boy, seventeen years of age, who had been admitted into Guy's Hospital under his care in February of the present year. The boy was pale, but had always enjoyed excellent health until three weeks before admission, when he was seized with acute rheumatism. His father had died of pneumonia, and one brother had cardiac disease. Patient lived only a few days after admission. There were found recent pericarditis and endocarditis, and the heart was greatly enlarged, weighing nineteen ounces. The interest of the case was in the rapidity of the hypertrophy, for there was no evidence of old heart-mischief; and though there was some inflammatory infiltration between the muscular fibres, the case was one not simply of acute swelling, but of true hypertrophy. There were few such cases of hypertrophy on record where the date of the origin of the hypertrophy could be precisely fixed. Dr. Quain and Dr. Peacock had each recorded a case, and Dr. Stone, in his recent lectures at the College of Physicians, had narrated a third case, and had calculated the average rate of increase of the heart at one ounce per week. But in the case now recorded the heart must have almost doubled its weight within a month, giving a rate of increase of quite two ounces per week. Given a muscle acting at double or triple its rate and force, there was no reason why there should not be a correspondingly sudden and extensive hypertrophy. In answer to Dr. Coupland, who asked whether the boy had been addicted to gymnastic exercises or other forms of physical exertion, Dr. Goodhart said the patient had been employed as a porter, but had never done heavy work.

PENETRATING WOUND OF HEART.

Dr. BOILEAU (of Netley) exhibited this specimen. A private soldier, when "skylarking" with his companions, received a wound in the chest from the blade of a knife, which flew out of the handle as the instrument was being brandished by another soldier. After the reception of the wound, the man went up fifteen steps, and then ran a distance of 200 yards in the direction of the hospital, when he fell speechless, and expired in five minutes. There was no external hæmorrhage, but the pericardium was found full of clotted blood. A punctured wound entered the right ventricle close to the septum, went through the septum, and passed out through the left ventricle near the apex. The cavities of the heart were empty. The interest of the case was in the length of time the man lived and in the movements he was able to accomplish, after the reception of so serious an injury.

Sir JOSEPH FAYRER said there was in the Pathological Museum at Calcutta the heart of a soldier who had been shot at the storming of Rangoon in 1852. The wound was in the left shoulder, and the lung was supposed to be injured. Sir Joseph saw the case at the time. After remaining in hospital for a fortnight, the patient recovered so much as to be able to go to a convalescent home, after six weeks' residence at which he died suddenly. At the necropsy the bullet was found in the left ventricle, but how it got there was a mystery. There was no appearance of injury to the cardiac walls, and the conjecture was that the bullet must have dropped into the cavity through one of the vessels.

SPECIMENS AND PHOTOGRAPHS FROM A CASE OF ADDISON'S DISEASE.

Dr. LEECH (of Manchester) made a communication regarding a case of Addison's disease in which there were characteristic changes in the left, and atrophy of the right supra-renal capsule, and a peculiar distribution of the pigmentation of the skin. The supra-renals, and also a large portion of the skin of the abdomen and thighs, were exhibited, along with illustrative photographs. The patient, an unmarried stone-quarryman, aged forty-three, was admitted into the Manchester Infirmary on December 10, 1878. Had never had syphilis and had always enjoyed good health. Two years ago, being then perfectly healthy, he observed brownish oval spots on the back of the middle and ring fingers of both hands. These spots by-and-by coalesced, and the discoloration gradually affected the arms, next the abdomen, then the legs, and lastly the face. The discoloration spread by the formation of small oval brownish spots near the margin of discoloured tracts. These spots increased in size, and merged with the parts already pigmented. Two months after the first appearance of pigmentation, his health began to fail. He soon became too weak to follow his employment, and he lost flesh. During the first part of his illness he often felt pain in the back, but had been free from this for six months until just before admission, when he complained much of pain across the loins, as well as of great lassitude. His appearance was worn and rather thin. The skin was dry, and in colour resembled that of a mulatto, but the intensity of the coloration varied much at different parts. The face was deeply bronzed; the chest but slightly tinted; the nipples, scrotum, and penis were intensely dark; a dark line was seen just anterior to the hair on the forehead; and the scalp itself appeared to be slightly pigmented. There were seen freckles over the chest, and over the buttocks and some other parts there were dark spots on the generally bronzed surface. On the eyelids, arms, legs, and scrotum were patches devoid of colour, oval or irregular in form, and varying in size from that of a split pea to that of a cheese-plate. Most of these patches were marked off from the pigmented portions by distinct lines of demarcation, though in some places the pigmented merged gradually into the non-pigmented area. Some of the patches, especially on the hands, were abnormally white; and in many cases the arrangement of the colour-free portions of skin was symmetrical on the two sides of the body. The pigmentation ceased abruptly on the prepuce and at the anus, leaving a small margin of natural skin adjoining the mucous surfaces. Though the coloration had altered little for several months, the face had become rather darker, and the body and legs lighter; and the pigmentation had disappeared from the

knuckles, where it was distinct at first. The hair was of a dark-brown colour. The tongue and other mucous surfaces were not pigmented at all. On the other hand, they were not pale, as in anæmia; the red corpuscles were not diminished in number, and the proportion of white to red was normal. The fundus oculi was natural, and the urine was free from albumen and sugar. He had two febrile attacks during his stay in hospital, suffering also from cough, and latterly from vomiting and diarrhœa. He died on February 15. Post-mortem, the skin seemed of a rather lighter hue than during life. Subcutaneous fat not deficient. Abdominal viscera congested. The great splanchnic on the right side was seen to be somewhat dark and large, and the right semilunar ganglion was of unusual size and distinctly red, the left one being also larger than usual. The right semilunar ganglion presented to the microscope intercellular fibrosis and atrophy of the ganglion cells. The mesenteric glands were not enlarged. The mucous membrane of the stomach and small intestine was injected, and some of the solitary and agminate glands at the lower part of the ileum were enlarged. Consolidated caseous nodules were found at the apex of each lung. No supra-renal capsule proper could be found on the right side, its position being occupied by a mass of substance chiefly fatty. The left supra-renal capsule presented thickening of its fibrous covering, with much fibrous development throughout the organ, and fatty change in the remaining proper glandular lobules. The central and lower portions also presented advancing caseation. The pigmentation of the skin was found to be limited to the lowest layer of the rete muscosum. Dr. Leech remarked that the complete atrophy of one supra-renal capsule along with the changes peculiar to Addison's disease in the other was rather a rare association. The abrupt transition from pigmented to non-pigmented portions of skin was also exceptional, the gradual transition being held to be characteristic of Addison's disease. In his case, the former condition made the resemblance to leucoderma very complete; and Dr. McCall Anderson, of Glasgow, had recently reported a case of a similar character, and pointed out the analogy of the two affections as depending on disease of the sympathetic nerve. The mode of progress of the pigmentation, if correctly described, was so unusual as to require confirmation.

Mr. Morrant Baker asked if the reporter believed there was really any true connexion between leucoderma and Addison's disease, or whether their similar appearances in these cases were accidental.

Dr. Leech said, that as in Addison's disease the important lesion was probably in the sympathetic nervous system, and not merely in the capsules, there was probably a real connexion between it and leucoderma, which also depended on sympathetic nerve-changes. Dr. McCall Anderson had also suggested a relationship with alopecia.

At a meeting of the Edinburgh Royal College of Surgeons, on Wednesday, Mr. William Bowman Macleod was recognised as "Lecturer in Dental Mechanics" in connexion with the Edinburgh Dental School in Chambers-street.

Poisoning by Misadventure in France.—A *pharmacien* of Avallon sold to Dr. Leriche, practising in that town, some false angustura bark in place of pomegranate, for which he had been asked. The two substances greatly resemble each other, but the angustura, containing brucine, is a very violent poison. With this Dr. Leriche himself prepared an infusion, and administered it to a patient, who died in consequence. The *pharmacien* and the doctor were both proceeded against for "homicide by imprudence." The question was debated, whether the doctor should not be exempt from prosecution, the *pharmacien* having alone committed the error which caused death, and for which he alone was responsible. The tribunal of Avallon, and after it the Paris Court of Appeal, decided that both the accused were guilty, maintaining that Dr. Leriche, being aware of the danger of confounding the two substances, ought to have carefully examined that which was supplied to him, especially as he admitted that he had observed that the infusion had a different appearance and smell to infusion of pomegranate. The local court condemned the *pharmacien* to a fine of 200 fr., and Dr. Leriche to one of 25 fr.; but the Court of Appeal sentenced the *pharmacien* to fifteen days' imprisonment in addition, and raised the doctor's penalty to 200 fr.—*Union Méd.*, April 17.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 17th inst., and when eligible will be admitted to the pass examination:—

Adeney, E. Leonard, student of Guy's Hospital.
Baker, William B., of the London Hospital.
Butler, George H., of the Charing-cross Hospital.
Champ, J. Howard, of Guy's Hospital.
Daniell, Charles H., of St. Bartholomew's Hospital.
Dashwood, Edmund S., of Guy's Hospital.
Daunt, Elliot, of St. George's Hospital.
Downing, Charles, of University College Hospital.
Fall, E. Armstrong, of University College Hospital.
Gross, Asher, of the Leeds School.
Hoyle, W. Evans, of St. Bartholomew's Hospital.
McDonagh, James S., of University College Hospital.
Moline, Paul F., of University College Hospital.
Mortimer, John D. E., of the Westminster Hospital.
Pounds, T. Henderson, of the Charing-cross Hospital.
Price, J. A. Parry, of Guy's Hospital.
Rimell, Alfred T., of King's College Hospital.
Shaw, Lauriston E., of Guy's Hospital.
Short, Frederick J., of St. Bartholomew's Hospital.
Smith, John, of the Charing-cross Hospital.
Sparrow, Horatio S. R., of King's College Hospital.
Tripp, C. L. Howard, of St. Bartholomew's Hospital.
Unsworth, Francis H., of the London Hospital.
Voss, F. H. Vivian, of the London Hospital.
Walker, William F., of the Charing-cross Hospital.

With this meeting of the Board the primary examinations were brought to a close; and it may be interesting to metropolitan and provincial teachers to add that out of a total of 213 candidates examined, forty-five were referred to their anatomical and physiological studies for three months, and seven for six months.

The following gentlemen, having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 22nd inst., viz.:—

Bell, Thomas A., L.R.C.P. Lond., Guernsey, student of Guy's Hospital.
Boisier, Arthur H., L.R.C.P. Lond., Clifton, of the Bristol School.
Coles, Donald A., L.S.A., Plymouth, of St. Bartholomew's Hospital.
Cowburn, G. H., Milner-street, Sloane-square, of St. George's Hospital.
Crooke, George F., L.S.A., Gainsborough, of Guy's Hospital.
Duncan, William A., L.S.A., Manchester, of St. Thomas's Hospital.
Gibbs, Alfred N. G., Bristol, of the Bristol School.
Hallam, William H., Newcastle, Staffs., of King's College Hospital.
Harvey, Alfred, L.S.A., Birmingham, of the Birmingham School.
Hill, Charles B., Hasler, Gosport, of University College Hospital.
Hebb, Frederick T., Brighton, of King's College Hospital.
Houlgrave, Augustine, Liverpool, of the Liverpool School.
James, T. J., L.S.A., Llandovry, Carmarthen, of the Middlesex Hospital.
Jones, Edward A., L.R.C.P. Edin., Kingaland-road, of Guy's Hospital.
Mennell, Zebulon, L.S.A., Shepherd's-bush, of St. Thomas's Hospital.
Money, Angel, Pemberton-road, N., of University College Hospital.
Oppenheim, Michael, Woburn-place, of the Middlesex Hospital.
Sainbury, Harrington, Clapham, of University College Hospital.
Seawcroft, Walter, Bolton, of the Manchester School.
Sheard, Charles, M.B. Trin. Coll. Toronto, Toronto, of the Toronto School.
Smith, George M., Clifton, of the Bristol School.
Suckling, Cornelius W., L.S.A., Birmingham, of the Birmingham School.
Tabb, John F., L.S.A., Redruth, of Guy's Hospital.
Tonks, Joseph, Willenhall, Staffs., of the Birmingham School.
Ware, John W. L., Barnstable, of the Middlesex Hospital.
Williamson, R. J., L.R.C.P. Lond., Wimbledon, of St. Thomas's Hospital.
Winter, Walter H. P., L.K. & Q.C.P. Ire., Torquay, Devon, of St. Bartholomew's Hospital.
Wolrige, Herbert E. B., Southsea, of the Bristol School.

The following gentlemen passed on the 23rd inst., viz.:—

Benthall, Winfred, B.A. Cantab., Sherborne, student of St. Thomas's Hospital.
Branson, Cecil L. S., Craven-hill-gardens, of St. Thomas's Hospital.
Damant, Arthur J., Cowes, Isle of Wight, of St. Bartholomew's Hospital.
Graveley, John G., Cowfold, Horsham, of Guy's Hospital.
Harvey, George H., L.S.A., Wivenhoe, of the London Hospital.
Morgan, Augustus K., L.S.A., Newport, Mon., of Guy's Hospital.
MacDonald, Greville M., Bournemouth, of King's College Hospital.
Mudge, James, Hayle, Cornwall, of St. Bartholomew's Hospital.
Pattison, Edward S., Walham-grove, S.W., of the Charing-cross Hospital.
Pearless, Edward M., L.S.A., East Grinstead, of St. Bartholomew's Hospital.
Redmayne, Hugh, L.S.A., Ambleside, of St. Bartholomew's Hospital.
Rich, Arthur C., Liverpool, of St. Thomas's Hospital.
Robinson, George S., Claverton-terrace, S.W., of St. George's Hospital.
Roper, George A., L.S.A., Harston, Cambridge, of St. Thomas's Hospital.
Savill, Thomas D., Brixton-road, of St. Thomas's Hospital.
Stathers, George N., Tredegar, Mon.
Sutton, Francis W., L.S.A., Reading, of St. Thomas's Hospital.
Vandrey, Edmund, Manchester, of St. George's Hospital.
Vlieland, Charles J., L.S.A., Highgate, of St. Bartholomew's Hospital.
Weakley, Arthur, Queenstown, Cape of Good Hope, of St. Bartholomew's Hospital.

The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery and Medicine submitted to the above candidates at the written examina-

tions on the 18th and 19th inst., viz. :—1. Describe the surgical relations of the male urinary bladder, when contracted and when distended. 2. Mention, in their relations to each other, the several parts which are divided in a circular amputation through the upper third of the forearm. 3. What constitutional symptoms would lead you to suspect strangulation of intestine? How would you investigate such a case? 4. Give an account of chronic enlargement of the prostate gland, its effects and treatment. 5. What is the *rationale* of the process of cure of aneurism? How may that process be induced by surgical means? 6. Describe the causes, symptoms, and treatment of acute iritis.—1. Discuss the morbid anatomy, symptoms, and treatment of diphtheria. 2. Give a chemical and pathological account of gall-stones. Enumerate the accidents to which they may give rise; and discuss the symptoms and treatment of these accidents. 3. Name the vegetable astringents of the Pharmacopœia; state their several special uses, and give the doses of their more important preparations. Write in Latin an unabbreviated prescription (with directions) for an astringent mixture for a patient suffering from chronic dysentery.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 17 :—

Colborne, William Wriothesley, Hilldrop-crescent, N.
Dalton, Norman, George Town, Demerara.
Evans, Theodore Charles, Castle Hill, Ealing.
Moorhead, Robert Lowry, Nottingham.
Pearless, Edward Montague, East Grinstead.
Pettinger, John Henry, Manchester.
Richardson, John Humphry Howard, Sparbook, Worcester.

The following gentleman also on the same day passed his Primary Professional Examination :—

Hooley, Arthur, Charing-cross Hospital.

In the pass list for April 10, the name of Walter Augustus Henne appears instead of Hume.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

HOBSON, L. J., M.B., B.S. Lond., F.R.C.S.—Acting Medical Officer to the Royal Northern Sea-Bathing Infirmary, Scarboro', *vice* Lycett, resigned.

MCCRACKEN, JOHN, M.B., M.C.—Assistant Medical Officer to the Glamorgan County Asylum, *vice* George Snell, resigned.

SNELL, GEORGE, M.R.C.S., Assistant Medical Officer to the Asylum, British Guiana.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—Staff-Surgeon George William John Sutherland, M.A., has been promoted to the rank of Fleet Surgeon, with seniority of April 8.

BIRTHS.

ADAMS.—On April 20, at West Town, Somerset, the wife of G. D'Arcy Adams, M.D., of a son.

BARTLETT.—On April 19, at 8, Sydney-place, Onslow-square, S.W., the wife of J. Prime Bartlett, M.R.C.S. Eng., of a daughter.

KENNEDY.—On March 18, at H.M. Penal Settlement, British Guiana, the wife of D. L. Kennedy, B.A., M.B., etc., of twin daughters.

KISCH.—On April 17, at 46, Portsdown-road, W., the wife of Albert Kisch, M.R.C.S., of a son.

MARTIN.—On April 18, at Abingdon, Berks, the wife of Paulin Martin, M.R.C.S. Eng., of a daughter.

MORGAN.—On March 25, at Fategarh, Bengal Presidency, the wife of Jerome W. Morgan, L.K.Q.C.P. Ire., A.M.D., prematurely of a son, who survived his birth but a few hours.

TRAVERS.—On April 16, at Upper Springfield-terrace, St. Leonards-on-Sea, the wife of Otho B. Travers, M.R.C.S. Eng., of a son.

MARRIAGES.

BROOKES—BUZZARD.—On April 16, at Lutterworth, the Rev. Charles Brookes, curate of Warmfield, Yorks, to Martha, youngest daughter of Marston Buzzard, M.D., of Lutterworth.

CARPENTER—HALE.—On April 19, at Eton, Philip Herbert Carpenter, M.A., Assistant-Master at Eton College, fourth son of W. B. Carpenter, M.D., C.B., F.R.S., to Caroline Emma, eldest daughter of the Rev. E. Hale, M.A., Assistant-Master at Eton College.

CUTHBERT—GRIMWADE.—On April 22, at Tulse-hill, Wm. Wood Cuthbert, M.D., Debenham, Suffolk, to Julia Emma, eldest daughter of S. Grimwade, Esq., Clevedon.

DABBS-PEET.—On April 19, at Borchurch, Isle of Wight, George Henry Roque Dabbs, M.D., to Nina Laura, widow of John Peet, M.D., Surgeon-Major H.M. Bombay Army.

FRAZER—ZEMP.—On April 16, at Langham-place, the Rev. John Findlay Frazer, M.A., son of William Frazer, F.R.C.S.I., of Dublin, to Lina, daughter of Antonio Zemp, of St. Peter's, Basle, Switzerland.

LEDGARD—HANCHETT.—On April 17, at Winksley, Ripon, William, Edward Ledgard, M.R.C.S., of Kirkby Malyeard, Ripon, to Lavinia, youngest daughter of the late William Hanchett, Esq., of Ickleton, Cambs.

MAGINNISS—GEARE.—On April 17, at Regent's-park, R. Maude Maginniss, B.A., M.D., of 158, Camden-road, N.W., to Mary Ann Edwards, eldest daughter of W. A. Geare, Esq., of 11, St. Mark's-square, Regent's-park.

MAHOMED—CHALK.—On April 10, at Neuchâtel, F. A. Mahomed, M.D., of 12, St. Thomas's-street, Southwark, to Ada, eldest surviving daughter of the late Charles Chalk, solicitor, of Brighton.

ORTON—MCRAE.—At Edinburgh, on April 15, Thomas Jerram Orton, M.R.C.S. Eng., Surgeon-Major A.M.D., to Margaret Anne McRae, eldest daughter of the Rev. John McRae, Edinburgh.

PALM—COLLAS.—On January 14, at Tokio, Japan, Theobald A. Palm, M.B., of Niigata, to Isabella Mary, eldest daughter of E. J. Collas, Esq., of Jersey.

PARNELL—OLDFIELD.—On April 17, at Forest Hill, Gerald Crecy Parnell, M.R.C.S. Eng., of St. Norman's, Forest Hill, to Mary Emily Langston, only daughter of the late Wm. Langston Oldfield, Esq.

PICKETT—CHAPLIN.—On April 16, at Forest Hill, Jacob Pickett, M.D., of 26, Colville-square, W., to Marie A. H., second daughter of the late R. J. Chaplin, of Beechwood, Deal, Kent.

SCOVIL—CATT.—On April 16, at Brighton, Francis S. Scovil, M.R.C.S.E., of St. John's, New Brunswick, Canada, to Mary Alice, only daughter of John Catt, Esq., of Brighton.

SMYTH—FERMOR.—On April 17, at Stoke Devonport, A. Vereker Smyth, L.R.C.P. Edin., Surgeon R.N., to Mary Josephine, eldest daughter of Charles Ellis Fermor, Esq., of Ashmansworth, Hants.

TAYLOR-THANE.—On April 15, at St. Andrew's, Holborn, Reginald Taylor, M.R.C.S., of Gray's-inn-road, W.C., and Lakeard, Cornwall, to Edith Emily, daughter of the late Charles Thane, Esq.

TREVOR—BROOKING.—On February 24, at Porvenir, Peru, Salusbury Lloyd Trevor, M.R.C.S., eldest son of E. S. R. Trevor, Esq., of Trvlosoced, Montgomeryshire, to Annie Hunt B. Brooking, eldest daughter of the late John Brooking, Esq., of Dartmouth, Devon.

WINCKWORTH—PHILLIPS.—On April 17, at Clapham, Charles Edward Winckworth, L.R.C.P. Lond., M.R.C.S., of Shefford, Beds, to Elisa Pauline, youngest daughter of Henry Phillips, Esq., of London.

YATES—HARDIE.—On April 19, at St. Helier's Church, Walter Peel Yates, M.R.C.S., of Jersey, to Olga, elder daughter of the late John Hardie, Esq., of Fassifern, Queensland.

DEATHS.

BARCLAY, FRANK MILES, Lieutenant 45th Sikhs, sixth son of Surgeon-General Charles Barclay, Madras Army (retired), in the Khyber Pass, Afghanistan, from the effects of a wound, on March 31.

COBBIN, WILLIAM INGRAM, M.R.C.S., Civil Surgeon, killed at the Intombi River, near Luneberg, South Africa, on March 12, in his 28th year.

DOUBLEDAY, ANNA, wife of Edward Doubleday, F.R.C.S. Lond., L.R.C.P. Edin., of Dovecote House, Long Clawson, Melton Mowbray, on April 9, in her 79th year.

HARRIS, WM., F.R.C.S., formerly Surgeon to the House of Correction, Wandsworth, at Maryborough, Queensland, in February.

LOW, ALEXANDER, M.D., Medical Inspector-General, R.J.M., at Le Coin, St. Brelade's, Jersey, on April 16.

MAY, JAMES EMANUEL, elder son of Emanuel Day, M.D., 103, Earl's-court-road, Kensington, W., killed in action on the Mhlobani Mountain, South Africa, on March 28, aged 23.

MORICE, DARLING GWENDOLINE, eldest child of Surgeon-Major John C. Morice, M.R.C.S. Eng., at Amritsur, Punjaub, on March 18, aged 4½ years.

MURCHISON, CHARLES, M.D., LL.D. Edin., F.R.S., suddenly, at his residence, 79, Wimpole-street, on April 23

ROSS, A. C., M.D., Surgeon-Major, late of the Royal Scots Regiment, on April 16, aged 50.

WOODTHORPE, RICHARD, M.R.C.S. Eng., Retired Staff-Surgeon, R.N., at Mortimer-road, Kingsland, on April 20, in his 86th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials as to character and ability, to Hugh Mason, Esq., Ashton-under-Lyne, on or before May 3. Applicants to state age.

DUDLEY DISPENSARY.—Resident Medical Officer. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, and hold a medical and surgical diploma and be registered. Applications, with testimonials, to the Hon. Secretary, Russells Hall, Dudley, on or before April 26.

NOTTINGHAM DISPENSARY.—Assistant Resident Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons, England, Edinburgh, or Dublin, or of the Faculty of Glasgow, and Licentiates of the Royal College of Physicians at London, Edinburgh, or Dublin, or Licentiates of the Apothecaries' Company, and duly registered. Testimonials to the Committee at the Dispensary, on or before May 5.

QUEEN'S COLLEGE, BIRMINGHAM.—Medical Tutor. Applications, with testimonials, to the Secretary, Mr. Joseph Lewis, 21, Paradise-street, on or before April 26.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Physician for the Diseases of Women, and an Ophthalmic Surgeon. The Physician must be a Fellow or Member of the Royal College of Physicians of London; and the Surgeon a Member of the Royal College of Surgeons of England. Both gentlemen will be required to give clinical instruction to the students of the London School of Medicine for Women. Applications, with testimonials, to the Secretary, on or before April 30.

SAINT BARTHOLOMEW'S HOSPITAL, CHATHAM.—Assistant House-Surgeon. Candidates must be registered medical practitioners. Applications, stating age, with testimonials, to the Clerk to the Trustees, on or before May 12.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, LOWER SEYMOUR-STREET, PORTMAN-SQUARE.—Physician to the Out-patient Department. Candidates must be graduates of a British university, or if graduates of a foreign university, Members of the Royal College of Physicians of England, duly registered as such and not practising pharmacy. Application, with testimonials, to the Secretary, not later than April 29.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Fylde Union.—The Poulton District is vacant; area 15,627; population 4317; salary £40 per annum.

Northallerton Union.—Mr. J. R. Gray has resigned the Borrowby District; area 475; population 3390; salary £10 per annum.

APPOINTMENT.

Wolverhampton Union.—James Wells, M.R.C.S., L.S.A., to the Second District.

In the list of candidates who passed the Primary Examination of the Royal College of Surgeons on the 15th, the name G. Norman Roberts, of St. George's Hospital, should have been G. Norman Robins; and J. Robertson Day, of University College Hospital, should have been J. Roberson Day.

PHOSPHATURIA IN RELATION TO SURGERY.—In a paper read at the Académie de Médecine, Prof. Verneuil narrated the case of a lady, still young, from the posterior part of whose thigh he removed a cutaneous fibroma the size of a walnut, the operation being easy and short. Still the patient was placed in danger, first by abundant hæmorrhage, and then by diffuse phlegmon of the thigh—the wound not healing for six or seven weeks, and complete recovery from so slight an operation requiring five or six months. Analysis of the urine exhibiting an enormous quantity of earthy phosphates. He referred also to three cases in which this "phosphatic diabetes" coincided with such fragility of the bones that either fracture took place from muscular action, or was delayed in consolidation. Prof. Verneuil thinks that in practice great care should be taken to ascertain the amount of phosphates discharged by the urine; for at present, even in cases of rickets and osteo-malacia, we have no exact knowledge on this point.—*Gaz. Hebd.*, April 11.

THE PARIS NIGHT SERVICE.—According to the quarterly report of Dr. Passant, for January to March, 1879, the total number of calls at night attended to by this service was 1385. Of these 466 were to men, 684 to women, and 235 to children under three years of age. In the corresponding quarter of 1878 there were 1097 calls. Any practitioner may inscribe himself in his arrondissement that he is ready to attend to these calls, and receives 10 fr. from the police officer who summonses him, this sum being afterwards recoverable by the authorities if the parties seeking assistance are in a condition to pay. In this quarter there were 149 cases of croup and affections of the throat, 94 of cerebral congestion and apoplexy, 48 of affections of the heart, 199 of affections of the chest, 19 of hernia, 16 of retention of urine, 70 of convulsions, 108 of neuralgic and nervous affections, 15 of epilepsy, 18 of insanity, 106 of hæmorrhage and wounds, 34 of fractures and dislocations, 14 of poisoning, 52 of sudden death, and 106 accouchements.—*Gaz. des. Hop.*, April.

CLIMATE OF NICE.—At the Therapeutical Society of Paris, Dr. Grellety read a paper somewhat damaging as to the repute of Nice as a proper place of resort in phthisis. In this he points out the great variations of temperature, which occur to such an extent that the thermometer is often at more than 40° C. at full midday, while it indicates only 9° or 10° in the shade. If Nice were as salutary in phthisis as it is reputed to be, this disease ought to be rare among the inhabitants. This it is far from being, for its mortality from this cause among them is very high compared to that of other cities. The statistics of the town, unfortunately, are purposely made erroneous, in order not to alarm visitors, and most cases of phthisis are registered as bronchitis, or as chronic disease. It is the same with regard to dangerous zymotic diseases, so that deaths in the epidemic of small-pox in December and January last were entered as occurring from acute disease or some other cause. Dr. Grellety states that the true triumph of the climate of Nice is found in the treatment of chronic gout—providing the subjects of this disease will renounce their bad hygienic and dietetic habits, live in the open air, and take plenty of exercise.—*Gaz. Hebd.*, April 11.

FRACTURES IN THE INSANE.—M. Mordret, in a paper read at the Société de Chirurgie, drew attention to the frequency with which fractures, and especially of the neck of the femur, take place among the subjects of dementia. Traumatic lesions usually are promptly cured, and, at all events, do not give rise to severe reaction; often pursuing their course without any traumatic or secondary fever or cerebral symptoms of any kind—which may be in part attributed to the indifference of the insane, and their ignorance of the gravity of the occurrence, and the quietude of mind respecting it. M. Mordret adduced five cases of fracture of the neck of the femur, four of which occurred in persons comparatively young, one of them being only thirty-two years of age. It would be an interesting point to investigate, by the aid of a larger number of cases, whether insanity predisposes to fracture by hastening the ageing of the skeleton. These subjects of dementia met with their accident by a simple fall of their own height, while epileptics and maniacs may fall from great heights without fracturing their limbs. Union is usually obtained in these cases without more deformity than occurs in healthy persons. It is desirable that the apparatus and manœuvres should in their cases be rendered as simple as possible, in order not to alarm them.—*Révue Méd.*, March 1.

OVARIAN PAIN IN PREGNANT WOMEN.—Dr. Budin, Chef de Clinique d'Accouchements, calls attention (*Progrès Médical*, No. 9) to a vivid pain which is sometimes produced during the latter months of pregnancy, and during labour, by a very moderate amount of pressure made on the abdomen by the ends of the index and medius fingers. The pain is sometimes so sharp that it causes exclamations or tears to start in the eye. It never occurs spontaneously, and its production is confined to the vicinity of a line drawn from the umbilicus to the anterior-superior spine of the ilium, sometimes a little above, and sometimes below this line, and at a distance varying from ten to fifteen centimetres from the umbilicus. At the seat of this pain so excited may be felt a movable body resembling the ovary in shape and size. Its presence is most frequently felt on the left side, the existence of a resisting surface—usually the back of the fœtus—being necessary in order for the body to be felt and the pain to be excited. Sometimes this can only be done during the contraction of the uterus. Dr. Budin thinks it possible that this "ovarian pain" has been confounded with certain neuralgias which several authors have termed rheumatism of the uterus, and with the pain sometimes caused by the pressure of the head on the uterine wall. It is sometimes very easy to distinguish also the round ligament, but pressure on this causes no pain. None of the women upon whom this tenderness has been produced were hysterical.

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

*** Mr. Reginald Harrison is thanked for his courteous letter.

J. Borrajo.—The scheme, however kindly meant, would be too liable to abuse.

The Ulster Epidemic.—It is stated that the Zurich physicians pronounce this epidemic—the germs of which are said to have been carried thither in a consignment of exotic birds—to be a species of pulmonary typhus, of decidedly Oriental origin. The patients suffering from it are carefully isolated, and no further extension of the disorder is apprehended.

The Celtic Chair, University of Edinburgh.—The subscription for the endowment of this chair has been closed; it amounted to £11,987 5s. It has, however, been decided to postpone the appointment of a professor for twelve months, in order that the capital fund might be augmented. The title of the chair is to be, "The Chair of Celtic Languages, History, Literature, and Antiquities," and the professor holding it is to be bound to teach the Gaelic language practically, so long as it is "a recognised medium of religious instruction in the Highlands."

A Numerous Progeny.—In a recent return to the Registrar-General of a marriage solemnised in the North of England, the clergyman states that the woman married, aged nineteen, is the thirty-seventh child of her father, by his fifth wife.

Drunkenness.—The quarterly report of the Chief Constable of Lancashire, presented to the Preston Quarter Sessions last week, showed that the arrests for drunkenness had been nearly 600 fewer, and the summonses on this charge 4/9 less than in the corresponding quarter of last year.

Specialist.—Yes; Herodotus tells us that the ancient Egyptians "so wisely managed medicine, that no doctor was permitted to practise any but his own peculiar branch. Some were oculists who only studied diseases of the eye, others attended solely to complaints of the head, others to those of the teeth; some again confined themselves to complaints of the intestines, and others to secret and internal maladies, accoucheurs being usually, if not always, women," as at present in Egypt. "They received certain salaries from the public treasury, and after they had studied those precepts which had been laid down from the experience of their predecessors, they were permitted to practise according to the prescribed rules," any departure from which was a punishable offence. Though paid by Government as a body, it was not illegal to receive fees for their advice and attendance, and demands could be made in every instance, except on a foreign journey and on military service, when patients were visited free of expense.

H.B.—The revenue is too considerable for Government to relinquish. In the discoveries made at Uriconium a patent medicine was brought to light, or rather, says Dr. Winter, "the seal of the physician who vended it,"—an eye salve, marked, like Rowland's Macassar, with his name, to prevent "unprincipled imitation," as follows:—"TIBerii CLaudii Medici DIALIBAnum AD OMNE VITium Oculorum EX OVO." Translated as "The dialibanum of Tiberius Claudius, the physician for all complaints of the eyes, to be used with egg."

*** We are indebted to Surgeon S. K. Cotter, M.D., M.Ch. Dub., for the following account of

"The Kafir Doctor and his Drugs."

The doctor pretty nearly rules his tribe. He is set apart from infancy for the profession. He spends his days and even nights in wandering in search of his drugs, which are in general harmless and disgusting. He always carries the severe aspect of Ingoldsby's Doctor Butts, and you almost fancy that he must have some axiom synonymous with "*Ars longa, vita brevis*," amidst his incantations. His personal appearance is not attractive, and he has pretty much the same tastes as to ornamentation as Medusa. His hair is long and resting on the shoulders; it is beautified by pomatum made with fat and dark or red clay. Round his neck and waist is a dirty cord, from which countless little filthy bags or sausage-skin sacks about three inches long are suspended, full of his sickening-looking-and-smelling drugs. He wears a piece of old sheepskin, apparently tanned with soot and grease, round his waist, covering him perhaps to near the knees. From the constant habit of keeping up a hideous glaring with his eyes, they seem projected beyond the brows. He gains unbounded veneration for his asceticism, and yet enjoys his time, whilst he lives, pretty well. The clergy, at all events at home, are not supposed to frequent the hunting-field or the ball-room. But the doctor (who is the nearest approach to anything clerical the Kafirs have) manages to evade this upon the very reasonable and plausible grounds that his presence keeps off evil influences, and so secures and sanctifies the whole affair. He goes to every big hunt, dance, and wedding, and nobody certainly excites such notice and "great admiration" as he does. He never performs any dance but a *pas seul*, and this is in itself a most terrific business, evidently, to the black spectators. He bounds in the air in all directions, and goes through a kind of exorcist's pantomime; everyone around shuddering lest the long, skinny fingers should point at him, for that often means great misfortune or death. There is very little festivity on either side during this gentleman's performance. It is far too personal a business, all round, to be anything but serious. The doctor is considered to be endowed with powers of divination. He is able to detect a thief, point out the position of goods lost or stolen, and in many cases is a producer of rain in dry seasons. Poor doctor! he has on the whole a hard time of it, and almost always meets a violent death, especially if he gets rich from the practice of his profession; and when the chief wishes to get a little ready money, he inveigles the medical gentleman into "smelling out," as it is called, the wrong man; upon which the chief comes down upon him for a heavy fine, and the wrongly accused does not forget to take vengeance on him, and between them he gets first robbed and then murdered.

Having known of so many cases of recovery of lost cattle, jewellery, etc., I cannot but believe that there is really something "uncanny" about these doctors. The respect they inspire is unbounded, and it is amusing to see these gentlemen swaggering along, everyone flying out of their way.

The chief antidote to snake-bites they call "Lebaba." It is a root the colour of satinwood. I believe it to be from some solanaceous tree, but they would not show me which. I closed my teeth on a chip of it, and experienced a most acrid taste, like the tobacco oil out of an old pipe. I felt nauseated and giddy even from that much. They give it internally in coarse powder, pounding it between stones, and also rub it into the wound after free scarification with a bit of glass or slate. A bit of broken bottle is their chief surgical instrument, and is called into requisition whenever a pain is in a joint or any internal organ, making regular cuts like a large-sized cupping scarificator over a patch from six inches to twelve inches square. They sometimes save a snake-bite case.

For my part I would rely more upon eau de Luce and brandy given without limit. A glass of brandy would make a Kafir girl hopelessly drunk; but I have known one to drink a whole bottlefull after a snake-bite without any apparent affect. If the wound is freely scarified at once, and sucked out, and ammonia used internally and externally, and plenty of brandy given, the case usually recovers. Without the brandy certainly they generally die.

The Kafirs have most of our drugs, but in very bulky form—such as the male fern, which they give in a huge dose, and for the same purpose as we do. They have, I believe, some few, but not many, drugs which we have not. Amongst the ground plants of South Africa there is a surprising amount of the Æsculapian order.

These doctors are close observers of nature and facts, though generally misinterpreting them. They generally can give some reason, fantastic or otherwise, for their theories. Amongst other physiological questions, I once asked a very shrewd doctor how he accounted for the foetal head coming first. He said that all animals which in copulation have their heads the same way, have the head presenting at birth. I instanced the sow as an instance to the contrary (I might have added the bitch, perhaps). He evidently thought this exception proved the rule. Before allowing me to see his abominable collection of iguanas' livers and snakes' tongues (his drugs), he made me promise on my word not to use any of them in my own practice!

Factories' and Workshops' Inspection.—Mr. Alexander Redgrove's fifty-first report has just been published. It is his first report as Chief Inspector of Factories and Workshops in the United Kingdom, and contains many interesting details of the work of factory inspection, which has, he states, become more varied and complicated year by year. When the first inspectors were sent out, in 1833, their chief duty was the enforcement of certain hours of work, but in the discharge of that they encountered determined resistance and difficulty. Now, however, the factory regulations are so generally complied with, that both employers and employed willingly co-operate in obeying and enforcing them, and the extension of supervision in the last few years has been comparatively carried into effect without difficulty. The Factory Acts, which were last year consolidated into a Factory Code, now embrace nearly every occupation. For the purposes of inspection, the country is divided into five districts. There are about fifty inspectors and sub-inspectors, and five of the former are superintendents of the districts. Mr. Redgrove's report clearly discloses the magnitude and the strict application of the present system of industrial supervision. That a vast, beneficial, and salutary effect, in a moral, physical, and sanitary point of view, will ultimately be produced by it, there can be no doubt.

The Colliers' Strike in Durham.—It is stated that the Hesleton Waterworks, near Seaham, which supply water to Seaham and Sunderland, are almost at a standstill for want of coals. Workmen refuse to provide coals for the works.

Farmers and the Dairies' Registration Order.—At the recent quarterly meeting of the Devonshire Chamber of Agriculture, presided over by Earl Fortescue, the Order in Council as to the registration of dairies was discussed, and it was proposed that an order should be issued, making it clear that farmers who only supplied milk to their neighbours should be exempt from the necessity of registering as dairy-keepers.

Street Accidents.—It is announced that a society is in course of formation for the prevention of dangerous driving, and those wishing to co-operate for the suppression of this evil are invited to communicate with Mr. Stokes, 17, Devonshire-square, Bishopsgate.

The Liquor Traffic, Ireland: a Protest.—A memorial to the corporations and boards of guardians in Ireland, and to the members of the House of Commons, has been signed by twenty-six representatives of trade-societies, strongly protesting against the proposal for further restrictive legislation with regard to the liquor traffic. Such legislation, they say, is not desired by the working classes, and would be detrimental to them individually, and humiliating and degrading to them nationally.

Rural Sanitary Works.—At South Petherton, Somersetshire, a system of sewerage is about to be carried out in accordance with plans prepared by the Engineer to the Yeovil Rural Sanitary Authority.——At Highfield, Salford, the storage reservoir, which has been in course of construction some time, is now very nearly completed. It is constructed to hold about eight millions of gallons of water. The total cost has exceeded £8000. ——At Bognor, Sussex, works of main drainage are being vigorously carried on.——Extensive works at Goodwood are being constructed, with the view of supplying water to the villages of Goodwood and Molescomb, and also Goodwood House. The water will be drawn from an existing well at the dog-kennels at Goodwood, and will be pumped to a reservoir capable of holding 100,000 gallons.—— The Dawlish Local Board have received the sanction of the Local Government Board to borrow £10,000 for works for water-supply.——The Town Council of Brighton, at their last meeting, had under consideration the appropriation of two large areas under the Artisans' Dwellings Act. Various suggestions were made as to the mode of covering the ground, whether by cottages or by model lodging-houses; and the surveyor was instructed to prepare plans and estimates.—— The Shropshire magistrates have been considering a report laid before them with reference to providing additional lunatic accommodation. The report was in favour of enlarging the present joint asylum at Becton by 200 beds, in preference to building another asylum elsewhere. The consideration of the question was adjourned.—— The Penrith Union Rural Sanitary Authority have just completed works for supplying water to the village of Langwathby. The supply is from a spring at Moor Breast—a mile and a quarter from the village. The total cost has been £568.

A New French Hospital at Constantinople.—Hitherto France has been without anything better at Constantinople than a number of wooden shanties which are scarcely worthy of the name of "hospital," while England, Germany, Italy, Austria, and Russia have all built excellent hospitals in that city. The French Chamber of Deputies has now, however, voted an adequate sum of money for the erection of a building suitable for the position which France occupies there.

The Grant Medical College, Bombay.—The Bombay "Mayo Memorial Fund" is to be partly devoted to establishing a Demonstrator of Physiology at this College.

COMMUNICATIONS have been received from—

Mr. W. H. Poole, London; Mr. John Chatto, London; Dr. Allchin, London; Mr. D. Colquhoun, London; Dr. Robert Barnes, London; Mr. B. R. Wheatley, London; Mr. R. W. Parker, London; Mr. Jonathan Hutchinson, London; Dr. G. E. Herman, London; Dr. Cheyne, London; Mr. Charles Higgens, London; Mr. T. M. Stone, London; Messrs. H. A. Williams and Co., London; Dr. Clement Godson, London; Dr. B. W. Richardson, London; Dr. J. Collins Warren, Boston, U.S.A.; Mr. George M. Robins, Gillingham; Dr. William Pearse, Plymouth; Mr. W. Bowman Macleod, London; The Registrar of Apothecaries' Hall, London; Mr. Reginald Harrison, Liverpool; Dr. Russell, Birmingham; Mr. J. Borrajo, London; Dr. Douglas Powell, London; Mr. W. A. Hume, Hounslow; Dr. Byrom Bramwell, Edinburgh; Mr. J. R. Day, London; Dr. Edward Sparke, Mentone; The Secretary of the Medical School of St. Mary's Hospital; The Registrar-General, Edinburgh; Dr. J. W. Moore, Dublin; Mr. G. B. Fraser, London; Dr. J. Milner Fothergill, London; The Secretary of the Royal Institution.

BOOKS AND PAMPHLETS RECEIVED—

Robert J. Lee, M.A., M.D. Cantab., Notes for Students: Pathological Anatomy, part i.—Freedom in Science and Teaching, from the German of Ernst Haeckel, with a Prefatory Note by T. H. Huxley, F.R.S.—Dr. Delefosse, Leçons Cliniques sur la Contracture du Col Vésical—E. Bibby, Invalids Abroad: Hints on Travelling, Nursing, and Cooking—Mrs. W. T. Greenup, Questions on Food and Clothing—Ralph Richardson, M.D. Edin., On the Nature of Life: an Introductory Chapter to Pathology—Lectures on Bright's Disease of the Kidneys, by J. M. Charcot, translated by Henry B. Millard, M.D., A.M.—James Tyson, M.D., A Guide to the Practical Examination of Urine.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Index Medicus—Giornale Internazionale delle Scienze Mediche—Brain—Guy's Hospital Gazette.

APPOINTMENTS FOR THE WEEK.

April 26. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. H. H. Statham, "On the Leading Styles of Architecture Historically and Æsthetically considered."

28. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. Cockle, "Clinical Cases." Dr. Sutherland, "Remarks on Cases of Slight Deviation from Healthy Mental Standard." Dr. Percy Boulton, "Cases of Uterine Hæmorrhage." Mr. Knowsley Thornton, "Aids to Diagnosis of Rotation of Ovarian Tumours." Dr. John Brunton, "A Case of Nævus treated by Sodium Ethylate."

29. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society (Extra Meeting), 8½ p.m. Mr. A. Barker—Caries of Spine affecting Hip-joint and Aorta. Mr. John H. Morgan—Subperiosteal Tumour. Mr. Walsham—Suppurative Phlebitis following Cystitis. Dr. Miller Ord (for Dr. Kraus, of Carlsbad)—Spontaneous Disintegration of Calculi. Dr. J. Ross (of Manchester)—Sections of the Cord, Medullary Pons, etc., of Four Cases of Tetanus and of Hydrophobia. Drs. Tilbury and T. C. Fox—Histology of Xanthelasma. Dr. Thin—1. Specimens of Discrete Sebaceous Tumours; 2. Erythema Circumscriptum; 3. Eczema from the Horse. Mr. Butlin—Growth in the Left Ventricle, with Embolism of Brachial and other Arteries.

Royal Institution, 3 p.m. Mr. Ernst Pauer, "On Mendelssohn." (With Musical Illustrations.)

30. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

May 1. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Harveian Society, 8½ p.m. Dr. Cleveland, "Case of an Excessive Dose of Chloral Hydrate." Mr. A. J. Pepper, "Tubercular Testis." Dr. Day, "Diseases of Children." Mr. Walter Pye, "A Case of Nerve Stretching."

Royal Institution, 2 p.m. Annual Meeting.

2. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; [illegible]'s, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

[illegible] Institution (Weekly Meeting, 8 p.m.), 9 p.m. Prof. John G. [illegible]drick, "On the Physiological Action of Anæsthetics."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 19, 1879.

BIRTHS.

Births of Boys, 1404; Girls, 1299; Total, 2703.
Average of 10 corresponding years 1869-78, 2324·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	916	841	1757
Average of the ten years 1869-78 ...	789·6	739·5	1529·1
Average corrected to increased population ...	...	...	1636
Deaths of people aged 80 and upwards ...	...	...	78

Nots.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	2	4	5	5	8	...	...	1	2
North ...	751729	5	10	8	4	20	1	...	...	3
Central ...	334369	...	2	3	...	3	...	...	...	...
East	639111	...	21	2	4	19	2	4	...	2
South	967692	6	12	8	6	22	..	5	4	5
Total	3254260	13	49	26	19	72	3	9	5	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·492 in.
Mean temperature	40·1°
Highest point of thermometer	58·3°
Lowest point of thermometer	30·2°
Mean dew-point temperature	34·0°
General direction of wind	Variable.
Whole amount of rain in the week	0·62 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 19, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending April 19.	Deaths Registered during the week ending April 19.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2703	1757	58·3	30·2	40·1	4·50	0·62	1·57
Brighton	105608	44·9	72	39	50·2	33·0	39·8	4·34	0·67	1·70
Portsmouth ...	131821	29·4	85	37	...	...	...	...	...	...
Norwich	85222	11·4	78	39	58·0	32·0	39·4	4·11	0·50	1·27
Plymouth	74293	53·3	51	41	54·5	31·0	39·9	4·39	0·79	2·01
Bristol	209947	47·2	159	103	54·7	30·0	38·7	3·72	0·48	1·22
Wolverhampton ...	75100	22·1	60	39	49·6	24·1	33·5	0·84	0·69	1·75
Birmingham ...	388884	46·3	322	206	...	...	...	...	...	...
Leicester	125622	39·3	92	48	...	...	...	...	...	...
Nottingham ...	169396	17·0	107	76	49·3	28·9	36·0	2·22	0·53	1·35
Liverpool	538338	103·3	392	325	53·1	30·4	38·7	3·72	0·13	0·33
Manchester ...	361819	84·3	259	218	...	...	...	...	...	...
Salford	177849	34·4	146	93	...	...	...	...	...	...
Oldham	111318	23·9	79	52	...	...	...	...	...	...
Bradford	191046	26·5	129	89	45·2	28·0	36·2	2·33	0·24	0·61
Leeds	311860	14·5	261	157	47·0	30·0	37·5	3·06	0·16	0·41
Sheffield	297138	15·1	233	145	50·0	28·0	36·8	2·67	0·50	1·27
Hull	146347	40·3	118	76	50·0	27·0	36·6	2·56	0·26	0·66
Sunderland ...	114575	41·4	105	51	51·0	32·0	39·8	4·34	0·42	1·07
Newcastle-on-Tyne	146948	27·4	121	72	...	...	...	...	...	...
Edinburgh	226075	53·9	160	82	49·5	28·7	37·6	3·12	1·14	2·90
Glasgow	578156	95·8	443	275	53·0	30·0	39·6	4·23	0·33	0·84
Dublin	314666	31·3	184	199	58·5	26·0	41·2	5·11	0·42	1·07
Total of 23 Towns in United Kingdom	8502896	38·6	6359	4220	58·3	24·1	38·2	3·44	0·49	1·24

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·49 in. The lowest reading was 29·31 in. on Tuesday afternoon, and the highest 29·77 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACTS OF CLINICAL LECTURES

ON ABSCESS IN SPECIAL REGIONS AS DETERMINED BY FASCIÆ.

By EDWARD BELLAMY, F.R.C.S.,
Surgeon to Charing-cross Hospital, Lecturer on Anatomy and to the Science and Art Department.

No. I.—The Axilla.

Gentlemen,—There have been several cases of deep-seated abscess under my care lately, in which the arrangement of complex fasciæ has played a very important part in their diagnosis and determination. The study of fasciæ is singularly neglected, both in our anatomical manuals and in our dissecting-rooms, and I venture, in the few remarks I propose making on this subject, to give you the result of my own dissections and preparations, applying them, as indeed they apply themselves, to the cases I bring before you.

I am aware that pus does not quite do all it might be expected to do, and is not the respecter of fascial envelopes which, perhaps, anatomical pedantry might assign to it. Yet there is no doubt that an accurate knowledge of the normal arrangement of fasciæ in any region must facilitate, at the outset, your diagnosis in cases where the nature of the contained fluid is not so evident, whether it be pus, a rapidly growing neoplasm, or a blood tumour, aneurismal or otherwise; moreover, you have a greater facility in detecting its actual position. Pus, although pent up in, or directed by, fascial laminæ, finds its way past the course of the blood-vessels and nerves perforating such fascia by causing the giving way of the loose areolar tissue connexions at these various points of perforation; and we shall see that pus exerts a peculiarly destructive power over cellular tissue generally.

I propose to direct your attention to these points as applied to the axilla.

First, then, as to the arrangement of the axillary fasciæ. Remember, that although the axilla varies greatly in outward form during the various movements of the arm and thorax, and its various compartments become reduced or increased in capacity, the *relations* of the fasciæ are constant; and that the vasculo-nervous cord formed by the axillary vessels and plexus is also a constant as regards the arm and chest-wall. I mention this, as you may have to deal with abscess or growths in this region with an anchylosed shoulder-joint, as has happened to myself. The axillary space is, after all, inseparable from the cervical region, both with respect to its fasciæ and cellular tissue, and, of course, is surgically continuous; but the result of suppuration may be so localised in the armpit that I propose to-day to consider it by itself.

The pectoralis major is covered by a strong lamina, which is attached to all the subcutaneous bony eminences, and after assisting in forming the sharp anterior fold of the axilla, where it is very tough, it spreads out as a thinner but perfectly continuous lamina, which forms the fascial floor of the axilla, and, covering the latissimus dorsi and teres muscles, passes upwards and backwards, and becomes developed into the dense deltoid and scapular aponeuroses, whilst anteriorly and externally it is continuous with the brachial fascia. A deeper layer is given off at the anterior axillary fold, which passes upwards and forms the posterior layer of the sheath of the pectoralis major. The superficial pectoral aponeurosis sends down a process between the pectoralis major and deltoid, which becomes continuous with the costo-coracoid membrane, and supports the cephalic vein and some branches from the acromial axis. We have lately had a patient where a large abscess formed beneath the integument and superior to this pectoral lamina, and which, though very extensive, was prevented by it from burrowing into the axilla.

Next, the most important and interesting. The middle lamina of the deep cervical fascia, after having split to enclose the subclavius, re-unites, is attached to the clavicle, coracoid process, and fascial covering of the serratus magnus, forming the costo-coracoid membrane, which covers in the axillary vessels and nerves and clavi-pectoral triangle. Again dividing, it encloses the pectoralis minor; reblending at the lower edge of this muscle, it becomes incorporated with the superior pectoral fascia and the anterior fold of the space, forming the *suspensory ligament of the axilla*, a most important factor in the disposition of abscess, and the existence of which is too frequently ignored or undescribed; hence it completely isolates the vasculo-nervous cord from the anterior compartment of the axilla, its internal border being continuous with the sheath of the pectoralis minor, and its external with the brachial aponeurosis.

The pectoralis minor is enveloped in a zone of loose areolar tissue, which is most favourable for suppuration. Hence the pus may exist between the pectorals, or below the pectoralis minor: in the former case it would "point" at the anterior border of the axillary fold, or in the furrow between the deltoid and pectoralis major; in the latter, the pus being behind, and bound down by the clavi-pectoral fasciæ, would have a tendency to surround the vasculo-nervous cord and ascend into the neck, infiltrating the cellular space, and ultimately find its way into the superior aperture of the thorax, and so into the anterior or posterior mediastinum. There is a great tendency for the pus to find its way beneath the latissimus, and burrow into the subscapular fossa, whence it may involve the articulation of the shoulder. In some instances the pus will extend down as far as the brim of the false pelvis.

I have been a little minute in my description of the *probable* course taken by matter. I had under my care a case in which the pus formed in the different localities I have here mentioned, and in exactly the same rotation. The evacuation, in fact, consisted in "chasing" the pus from cavity to cavity. Finally, when the pus in contact with the thoracic parietes causes a separation of the tissues, either by absorption or perforation, fatal pleurisy may occur.

We all know the causes of infection, and some of us have been personally acquainted with abscess. Any simple injury in a lymph-track in the hand or finger, or a fissure in the breast, will produce it. With regard to the course of the affection of the lymphatics, the gland over the internal condyle is, as a rule, the first to become inflamed, although I have known several instances where the glands in the axillary space were infected at the outset: this happened to myself. In whichever of the interfascial spaces the capsule of the affected gland gives way, the spread of suppuration is singularly rapid, although I may remark that in cases of tuberculous abscesses there is not such a tendency to diffuse suppuration. Occasionally abscess may occur spontaneously, in the cellular tissue, without inoculation from without. Abscess once formed must be evacuated, and that at once. Great care and appreciation of tissue is necessary in this operation. Beware of "plunging" your scalpel into these collections of matter. No matter what your skill, you know not how the abscess-sac has disposed of the *branches* of the axillary vessels which traverse the space. Hence always adopt Hilton's method of merely dividing the *skin* with your cutting instrument, and of afterwards pushing your blunt director or dressing forceps gently onwards until pus leaps or wells up. The finger is the best probe, and can do no harm. I need hardly say that this pus-evacuation should be performed antiseptically; and I have noticed that the troublesome sinuses which so frequently occurred after opening these abscesses before the introduction of Lister's method, are now prevented. This, and the precaution of keeping the arm bound to the thorax so as to maintain a constant relation of the contents of the space, should entirely prevent this complication.

Another complication I have observed is, that if there has been destruction of the cellular and muscular tissue of the serratus, the nerve of Bell becomes involved in the ensuing cicatrisation of the parts, and a partial paralysis is the result for awhile; but as the patient shakes off the poison (it may be many months afterwards) it is wonderful how the muscle recovers itself, and plays its former *rôle* almost as well as ever, with the exception that in forward extension of the arms with the palms together the tips of the fingers will not quite meet.

The Vomiting of Pregnancy.—At the Philadelphia Episcopal Hospital the following prescription has been found useful:—℞. Cerii oxalat. gr. j., ipecac. gr. j., creasoti gtt. ij. To be taken every hour.—*New York Med. Record*, March 1.

ORIGINAL COMMUNICATIONS.

A CASE OF

COMPLETE OBSTRUCTIVE SUPPRESSION OF URINE FOR TWENTY DAYS, FOLLOWED BY COMPLETE RECOVERY.

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

THE following case is almost without precedent as regards the length of time during which the discharge of urine was suppressed; and, I believe, entirely so in the circumstance that the patient not only preserved life, but recovered his ordinary health, after a period of complete anuria of twenty days' duration. The evidence on which the credibility of so unusual an occurrence is based, must answer to the importance of the fact to be established. I did not see the case myself, having been absent on my holiday at the time when I was applied to by my friend Mr. Turner to visit the patient with him; my friend and colleague Dr. Rickards went over to Wordsley in my place. His testimony is in perfect agreement with other evidence up to the twelfth day. My chief witness is, of course, Mr. Turner himself, who had charge of the case, and took great interest in its course. He watched the patient very closely, visiting him twice every day, and sometimes three or four times. The man's wife is also clear and positive as to the facts of the matter; she or her daughter were in constant charge of the patient, and she carried out the plan directed by Mr. Turner for detecting the appearance of any urine. So carefully were the instructions obeyed, that on the occasion of the two warm baths the patient had, he kept a male urine bottle applied to his person that no urine might pass away unawares; I have noted elsewhere the other precautions employed. The patient himself, whom I have seen as I am writing these notes, has no doubt on the subject, though of course his testimony is of less value; and, finally, the patient was visited by several surgeons in the neighbourhood, who regarded the case with much surprise and interest.

Of the correctness of the two dates—that of the beginning of the suppression, and that of its termination—there can be no possible question; any doubt must be involved in the inquiry whether any urine was passed during the intermediate period. Mr. Turner has complete faith in the precautions adopted and in the vigilance exercised. Dr. Rickards on the twelfth day saw no reason for doubt. The wife, an intelligent woman, is decided in her testimony.

It may be remarked, in passing, that, given the two dates—that of the establishment of an obstacle to the outflow of urine *outside* the bladder sufficient to give rise to protracted anuria, and the date of its removal—the question as to the secretion of urine in the interval appears to be of minor importance as regards viability. But to this subject I shall return below.

But there is important testimony to the accuracy of the statement as to the duration of the suppression in the very large quantity of urine voided by the patient in the course of the first twenty-four hours after the restoration of the discharge; far more important, however, in the character of that urine, as described by the patient's wife. "It was not like urine; it was quite white—more of a silvery white; clear, and very bright." This description, entirely unprompted, is precisely that applicable to the urine voided during or immediately after the operation of an obstruction placed on the kidney side of the bladder. Of course the quality of the urine just described leaves open the possibility of other urine having been passed previously, but it goes far to prove that practical obstruction had remained up to that period, and therefore that the passage of urine previously would probably not have much influence on the progress of the case, so far as the patient was concerned. "The passage of a few ounces, or even two or three pints, of a dilute urine does not seem to extend the time of survivorship beyond a few hours." This is the observation of Dr. Wm. Roberts ("On Urinary and Renal Diseases," 1876, page 45), and his third case affords a striking illustration of the accuracy of the remark: the patient died after complete anuria of only five days, occasioned by a calculous obstruction; for the fortnight preceding the period of anuria the urine had been passed in its usual quantity, but the patient's wife told Dr. Roberts that it had changed in character—from having been high-coloured, it "was as clear as water." In Dr. Roberts' succeeding case (the fourth), in which death occurred on the fifteenth day, a considerable quantity of pale clear urine had been voided, averaging altogether about two pints daily, but discharged irregularly.

It would appear, then, from clinical observation that an amount of backward pressure sufficient to suspend, or greatly to lessen, the passage of urea into the renal cavities, is yet insufficient to arrest the flow of aqueous fluid to a corresponding extent. As the pressure increases, the delivery of water also ceases; and thus may doubtless be explained why considerable lumbar pain sometimes inaugurates the attack of anuria, and ceases in twenty-four or thirty-six hours. Of course the cessation of the urine entering the cavities of the kidney has a conservative tendency; but it has a grave disadvantage also: it removes the principal means, the *vis a tergo*, by which the obstruction can be removed; hence probably the reason why obstructive suppression, at least from calculi, is so fatal an occurrence.

Nine quarts of urine were voided during the twenty-four hours which succeeded the issue of the calculus. This quantity is not more than that passed by certain diabetics during the same period; it has, indeed, been far exceeded by occasional sufferers from that disease; and urea is a most powerful diuretic. One thing, however, should be noted: the quantity of urine voided in diabetes is accounted for by the fluid imbibed; so far as I could learn, such was not the case in the present instance. The first quantity parted with was probably furnished by a distended bladder; and the idea may present itself that the bladder had been filling for a somewhat longer period. The account given by the wife points, however, very distinctly to a painful change having taken place in the region of the bladder during the night, the urine having been voided early in the following morning. Discomfort was so great that fomentations were applied during the night, and no doubt facilitated the passage of the stone through the urethra. This incident emphasises the important difference in the effect upon the urinary secretion and upon the expulsion of the obstructing body, according as the body is situated behind or in front of the bladder. In the former position its effect is at once felt by the renal tissue, and secretion of urine is checked; in the latter the bladder receives the secreted fluid, which distends it more and more, and produces a steadily increasing *vis a tergo* to clear away the obstructing body.

One question suggests itself in connexion with this copious flow of fluid from the urethra: Was the case an instance of double hydronephrosis?—Dr. Roberts believes that a case he quotes was an instance of this kind (page 41)—or was it a case of single hydronephrosis, the other kidney having been disabled by some other cause? The obstruction in my case being caused by a calculus negatives such a supposition, which could only be tenable on the hypothesis of the obstruction which produced the suggested hydronephrosis having been of a much more permanent character. Neither Mr. Turner nor Dr. Rickards discovered the presence of such a condition. When I saw the patient first, two months afterwards, I examined the abdomen, but I neglected to make a note on the occasion; I have, however, repeated my examination at the present time, Mr. Turner having kindly brought the man over, and I find the abdomen perfectly healthy. The patient has just voided for me some clear yellow urine, specific gravity 1011, presenting a faint cloud of albumen, and containing urea in the proportion of 4·8 grains to the ounce. The nearest approach to the condition just suggested, in a case of anuria from calculous obstruction, is afforded by a case related by Dr. Bence Jones, in the *Pathological Transactions*, vol. iv.; but the circumstances differ altogether from those attending the present case.

Referring for a moment to the cases on record in which anuria from obstruction has persisted through a lengthened

period, I may note that Ebstein briefly refers to a case by Salgado, in which the patient, a female, recovered on the escape of a calculus the size of a bean, after complete anuria for thirteen days ("Ziemssen's Cyclopædia," xv., 711). Dr. Wm. Roberts quotes a case from Rayer, in which the patient died after twenty-five days; and he refers to the case by Sir James (then Mr.) Paget, in the *Transactions of the Clinical Society* for 1869, page 174. The patient lived twenty-two days, and passed urine once only, on the fourteenth day—a considerable quantity. In this, as in other cases, and in my own, the symptoms of uræmic poisoning were mild; the patient travelled from London to Hampshire on the ninth day of complete suppression, and it was not until the seventeenth day that muscular twitchings made their appearance. He died gradually of asthenia.

I might take Dr. Roberts' third case as holding the next place in the duration of life, if, as already suggested, the first fourteen days of urine "clear as water" be added to the five days of perfect anuria. With these exceptions, I only find two cases in which the duration of the disease has exceeded twelve days: in these two it reached fifteen days; both were fatal.(a) Two cases of recovery are recorded, after seven and nine days of suppression respectively.

The small size of the concretion which is capable of producing such serious symptoms is worthy of notice. I do not know the weight of the stone in my own case; it was, however, small enough to pass along the urethra. But in more than one instance mentioned by Dr. Roberts the calculus did not exceed a grain and a half in weight. The obstruction in these cases was at the point where the ureter passes through the walls of the bladder; and the chance of a fatal result being brought about by so small a body of course constitutes a serious danger in cases of renal gravel. Illustrations of fatal obstruction from calculi of much larger size will, however, be found in the *Pathological Transactions*, vols. iv., xi., and xiv. Ebstein mentions a case in which the patient was the unfortunate possessor of a single kidney, and this kidney became the seat of obstruction.

There is one point of considerable importance in the history of my patient which requires notice: vomiting was a prominent and persistent symptom throughout. This symptom is not of frequent occurrence in the history of recorded cases. Whether the vomiting exerted any influence in saving the patient from the most serious consequences of his attack, it would be unsafe to say, without the means of analysing the nature of the vomited matter. Analogy from what has been observed in the intestinal contents in cases of diminished or suspended secretion occasioned by Bright's disease would favour an affirmative reply. I cannot, however, find that vomiting, when present in obstructive anuria, appeared to exert much influence in the patient's favour, so far as the histories afford means of judging. Readers of M. Charcot's works will remember his lecture "De l'Ischurie Hystérique" ("Leçons," 1875), in which he describes the persistent and very copious vomiting attending the anuria in the case he describes in detail, and the analysis of the vomited matter by M. Gréhaut; fifty-two grains of urea were found in forty-nine ounces and a half of vomited matter (page 290). One thing further must be noted—that during the entire period my patient took no food capable of conversion into urea, or practically none.

The case I now narrate occurred, as already stated, in the practice of Mr. Turner, of Wordsley, near Stourbridge. The patient's age was forty-nine. He had been a fairly temperate man, in general good health. He had had rheumatism, but not gout. One of two brothers had gout; the other brother, his two sisters, and his parents, have been free from the complaint. From the patient's report I suspect the mineral constitution of his drinking-water not to be of a character suitable to a man with his tendency.

He has been subject to gravel for nine years; on occasion of the first attack he "played" eleven weeks. At that time he suffered severe and very characteristic pain on the left side passing into the testis and down the outside of the thigh, with frequent micturition and vomiting. The attack ended after he had passed nine or ten stones. Repeated attacks, ending in the passage of several calculi, but never laying him by, have happened since. He believes that the pain has been always on the left side, but his wife corrects him, and declares that he has complained of both sides. With all these attacks the passage of urine has never been suspended, though its quantity may have been diminished.

The attack which is the chief subject of this history occurred last August. The pain began in the left loin, just as in his first attack, and his urine "stopped all at once." Vomiting set in with the commencement of the attack, and grew more violent day by day, persisting to the last; on some days he vomited "half a dozen times, more or less." The matter vomited was sometimes bitter, sometimes sour; at first it was like phlegm; once or twice it was some "yellow stuff"; and later it contained what "looked like bits of liver." It does not appear that the total vomit exceeded a pint in each twenty-four hours. The bowels acted spontaneously, or were kept open by seidlitz-powders; the stools were not fluid. Dr. Rickards visited him in my place, on the twelfth day of suppression. There were then no uræmic symptoms, no muscular twitchings, and the pupils were but moderately contracted. He was only rather apathetic. The day was cold, and there was no fire in the room; nevertheless, the patient was perspiring profusely; the sweat stood in balls. Throughout the case the symptoms were remarkably free from urgency. The patient was constantly about, night and day. He describes himself as carrying his pillows about with him, trying all kinds of ways of lying down, but retaining none. Some delirium, principally at night, came on after the twelfth day. The pupils were never very greatly contracted. Neither Dr. Rickards nor Mr. Turner observed muscular twitchings, nor was there marked depression of muscular power. The man walked into his garden on the twentieth day. The pulse did not fail. The lower extremities became extremely œdematous. Throughout the illness he was very thirsty. He drank some brandy, ginger-beer, and champagne freely. Once he had the yolk of an egg in milk with some brandy.

Mr. Turner has afforded me information as to the length of the period of suppression; it lasted twenty days. The wife of the patient makes the same report. She was instructed by Mr. Turner to watch carefully for the appearance of any urine. The patient was desired to go to the night-chair when his bowels acted, and to use a glass for the reception of any urine which might make its appearance. These instructions were carried out, and the wife is positive that no urine could have been voided without her knowledge. Early in the morning of the twenty-first day of suppression the patient felt an urgent desire to pass urine. He had suffered during the night from severe pain in the vesical region. His wife placed a fomentation upon the part, and he fell asleep, almost for the first time since his illness began. On trying to pass water he failed to do so two or three times, then urine began to flow upon the carpet, much to his surprise; he called for a half-pint tumbler, and filled it five times. During the course of the twenty-four hours, nine quarts in all of urine were passed. The whole was measured in Mr. Turner's presence. "It was," said his wife, "not like urine, but of a silvery white, clear, and very bright." According to the information I received, he did not drink more than a pint during that day; he was exceedingly low, and indisposed to take anything. With the reappearance of the urine, the œdema, which had extended to the face, rapidly disappeared, and the vomiting ceased at once. On the day after, three quarts of urine were voided.

There is discrepancy as to the period when a calculus passed: the wife asserts that it fell into the vessel after the first five half-pints of urine had passed, and that a second followed next day; the man himself, as may be supposed, is in entire ignorance of the matter. The statement of the wife was very clear and explicit.

He came to me at the Birmingham General Hospital as an out-patient in the following October. He passed daily about three half-pints of urine of good colour. Some passed in my presence was yellow, and presented a cloud of albumen; it contained 4·8 grains of urea per ounce. The indisposition for which he came to me ended in the passage of several uric calculi, one of which I saw; and I have been lately informed that the patient has had partial retention for twenty-four hours, followed by the passage of a uric calculus (sent to me) weighing five grains. He has again recovered. At the present time he is in excellent health. As stated above, his abdomen is perfectly healthy, free from any evidence of enlargement in the renal region.

(a) I have omitted to notice a case quoted in the *Medical Times and Gazette* for March 22 of the present year, in which the patient died on the fifteenth day of complete anuria from calculous obstruction. The case is quoted from the *Gazette Hebdomadaire* of February 28.

THE TREATMENT OF "DISPLACED RETINA" BY OPERATION.

By CHARLES HIGGENS, F.R.C.S.E.,
Ophthalmic Assistant-Surgeon, Guy's Hospital; Lecturer on Ophthalmology, Guy's Hospital Medical School.

Case 1.—James F., aged thirty-seven, admitted December 5, 1877. Left eye: Considerable displacement of retina at lower part; vitreous cloudy; some floating opacities besides the displaced retina; optic disc visible, apparently healthy; central corneal opacity. Right eye: Some dimness of vision; eye is hypermetropic, 2 D.V. = $\frac{1}{2}$. Seton of fine gold wire passed through sclerotic and choroid, between the latter and the displaced portion of retina; the points of entrance and exit of the wire were situated between the external and inferior recti muscles, close to their insertion.

January 8, 1878: The seton caused no irritation; it could be plainly seen with the ophthalmoscope behind the displaced portion of retina. No improvement had taken place. The wire was removed; iridectomy performed downwards. 29th: Conjunctiva divided with scissors and turned back. A small piece of sclerotic removed with trephine, immediately behind the ciliary region and at a point midway between the insertions of the external and inferior recti muscles; the choroid which bulged into the opening made by the trephine punctured with a Graefe's knife. A gush of clear fluid took place. Wound in conjunctiva closed with suture. No irritation followed; the wound in sclerotic gradually contracted. On December 9, 1878, the retinal displacement remained the same; the opening made by the trephine appeared as a bluish nearly circular spot. The eye could count fingers in the lower and outer part of the field, the remainder of which was entirely wanting.

Case 2.—Elizabeth S., aged twenty-two, admitted October 22, 1878. Left eye: Retina displaced at outer and lower part. Both eyes highly myopic; considerable posterior staphylomata. Gold wire seton passed through sclerotic and choroid, behind displaced portion of retina. October 25: Much pain, chemosis, severe iritis. Seton removed; leeches applied to temple.

November 1: Chemosis has subsided; pupil dilated; anterior chamber deep; slight pain; perception of shadows; some iritis. 5th: Iritis has subsided; no pain. 29th: Mass of yellow deposit behind lens, probably lymph. January 3, 1879: Yellow deposit rapidly subsiding. 9th: With the ophthalmoscope a dull red reflection is returned from the upper part of the fundus; the lower part is obscured by opacity, apparently in the track of the wire seton. The eye can distinguish large objects in the lower part of the field only. Left the hospital. October 7: Re-admitted. Left eye, lens opaque, pupil irregular, anterior chamber shallow; eyeball painful, T — 1. Right eye, V. = $\frac{6}{18}$ c. — 7 D. November 18: Left eye still painful; has lately had attacks of misty vision in right eye. Left eye excised.

Case 3.—Elizabeth H., aged nineteen, admitted January 21, 1878. Left eye: Lower half of retina detached and floating freely about. Gold wire seton passed through sclerotic, about insertion of inferior rectus muscle. January 22: Pupil widely dilated and fixed; no sign of irritation. 24th: Pupil active; displacement appears about the same; seton cannot be seen. February 18: No change; upper part of field entirely wanting. Right eye, H. 2 D. V. = $\frac{1}{2}$. March 11: Vision the same; seton causes no inconvenience; no sign of irritation; displacement seems unaltered. March 18: Seton, causing some irritation, removed. April 8: No improvement of vision; displacement unaltered. The patient was seen several times after this date, but no alteration took place, and no note was made.

Case 4.—William F., aged forty-seven, admitted January 11, 1879. Has had imperfect vision as long as he can remember; is myopic. Left eye has failed considerably during the last month: cannot now count fingers; pupil smaller than right; a few posterior synechiæ. The ophthalmoscope shows a large detachment of the retina, extending from the optic disc downwards and forwards to the ciliary processes. Both eyes are myopic; there is a large irregular posterior staphyloma in the right. The fundus cannot be clearly examined in the left on account of the retinal detachment. Left eye: Conjunctiva dissected back; portion of sclerotic removed with trephine, between external and inferior recti muscles. As soon as the portion of sclerotic had been removed, the choroid bulged into the opening; it was punctured, when a considerable amount of clear fluid, followed by a bead of vitreous, escaped. January 27: Trephine wound filled with lymph; no sign of irritation; pupil active; displacement appears unaltered. March 8: Wound firmly cicatrised; marked by small brown spot. No improvement of vision; no alteration of displacement.

Case 5.—Kate N., aged thirty-two, admitted February 7, 1879. Left eye blind fifteen months; lens opaque; anterior chamber shallow; marks of past iritis; bare perception of light. Right eye: Sight failed rapidly yesterday; distinguishes large objects in upper part of field only. The ophthalmoscope shows a large detachment of the retina above and to the outer side. February 10: Portion of sclerotic removed with trephine, between superior and external rectus; choroid punctured; quantity of clear fluid escaped. February 18: No irritation. March 24: Has had some iritis, leaving posterior synechiæ; displacement has shifted to lower part of retina; no improvement of vision.

Remarks.—It was not without some misgiving that I proceeded to operate on cases of displaced retina, more especially by the introduction of the gold wire seton. Knowing the disastrous results which frequently follow the accidental lodgment of foreign bodies within the eye, I was quite prepared for what might follow the intentional introduction of a piece of wire; on the other hand, I knew that pieces of metal had often lodged in the vitreous and remained there without causing any irritation. In Cases 1 and 3 the wire remained in the eyeball for one month, and nearly two months, respectively—in the former causing no irritation, in the latter but little. In Case 2, however, what I feared occurred: within three days of the operation a violent irido-choroiditis was set up, which entirely destroyed the eye, rendering necessary its excision at a later period. Removal of a portion of the sclerotic appeared to be a much safer operation than the introduction of a seton, and in the three cases reported, no bad symptom followed. Both operations are extremely simple. For the introduction of the wire seton I used a curved hollow needle; a piece of gold wire about as thick as a human hair was pushed into the tube of the needle, just far enough to prevent it slipping out; the needle was then passed through the tunics of the eyeball into its interior, brought out again at a distance of about one or two centimetres from the point of entrance, and detached from the wire, the two ends of which were tied in a knot, and cut off short. The portion of sclerotic is removed by a small trephine having a screw fixer in its interior, upon which it works by means of a left-handed screw; it is an aural instrument, and was given to me by Mr. L. Purves. When the instrument is used, the conjunctiva is first divided and turned back; the screw fixer, protruded beyond the end of the trephine, is then screwed firmly into the sclerotic, and slight traction exerted; the trephine is then rotated from right to left, and passes down over the head of the fixer, by which the sclerotic is drawn into its mouth, and cut by being pressed against the trephine. As soon as the sclerotic has been perforated, the instrument comes away from the globe, the choroid bulges into the little circular opening and is punctured with a knife. Some clear fluid, perhaps followed by a small quantity of vitreous, escapes. I did not expect much from the operative treatment of displaced retina, but hoped that, at any rate, my patients would be made no worse; in this even—so far as the introduction of a seton goes—I was disappointed. The trephine did no harm, but, on the other hand, did no good. I have used it with beneficial results in some cases of absolute glaucoma where the globe was painful. Possibly further trial may give more encouraging results in displacements of the retina.

PROF. YANDELL ON INUNCTION.—Prof. Yandell urges the more extensive use of iatroliptic medication—that is, the rubbing into the skin of drugs and nutritious oils. He has had satisfactory results from quinia by mixing it with glycerine, ʒj. to ʒj., and rubbing in a sixth or fourth of this daily. He has cured diarrhœa by rubbing the abdomen with tannin and glycerine, and has seen it produced by the inunction of croton oil. He has great faith in the inunction of cod-liver oil, olive oil, or hog's lard in phthisis and anæmic conditions.—*New York Med. Record*, February 1.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

A CATHETER BROKEN IN BLADDER—REMOVAL BY THE MEDIAN OPERATION.

(Under the care of Mr. BRYANT.)

SAMUEL L., aged thirty-eight years, was admitted on April 1 with the following history:—In April, 1869, he received a kick in the perineum from a horse. This was followed by considerable swelling about the parts; and he passed some blood with his urine. After this he had difficulty in making water, which increased until in March, 1875, he applied for relief at Guy's Hospital. He was then admitted, and, some time in April, Syme's operation of perineal section was performed for the relief of his stricture. In the following month he left the hospital, able to pass a full-sized catheter into the bladder, but with a fistula in the perineum. This fistula remained until his admission in 1879. Since 1875 patient had been in the habit of occasionally passing a full-sized catheter for himself, and only once had suffered from retention, on which occasion he applied to the hospital, and was relieved by the passing of a No. 10 silver catheter. On the night of March 31 patient went for a short walk with a No. 10 gum-elastic catheter in the bladder. He had noticed a small crack in the instrument before inserting it, and after walking a short distance he found that the catheter had broken at that place, and that the anterior part was loose in his trousers, while the other part remained in the urethra. He then returned home, and until his admission to the hospital next day he found that he was unable to retain his urine, which dribbled away both through the fistula and through the urethral orifice.

When admitted, patient was a sallow, unhealthy-looking man. A fistulous opening existed in the perineum, and extending backwards from the scrotum, in the line of the urethra, a hard rounded body could be felt. The urine kept constantly flowing through the fistula and urethra. On the day of admission, patient was put under the influence of chloroform, and an attempt was made to withdraw the fragment of the catheter by means of the urethral forceps. The catheter, however, retreated towards the bladder, and an incision was then made enlarging the previously existing fistulous opening towards the bladder. The piece of catheter was then withdrawn by a pair of dressing forceps. It measured about four inches and a half, and the broken end was much blackened.

April 2.—Temperature normal. Patient complains much of pain. The urine passes only by the wound.

4th.—He can retain his water for about an hour, and has slept better. His temperature is slightly subnormal.

8th.—Patient has complained of a constant pain about the loins, worse on the left side. The bowels have been constipated; the urine is dark-coloured, contains ropy mucus, and is passed with difficulty.

10th.—There is still a great deal of straining in micturition, with very little result, only about three tablespoonfuls of urine being passed at a time. The straining is preceded by shivering and great pain. There is no marked increase of temperature. In the afternoon, not being able to introduce a catheter into the bladder, Mr. Bryant prolonged the perineal incision backwards and outwards to the left side into the bladder. A large quantity of foul-smelling urine was drawn off, and the bladder was washed out with a solution of iodine in water. A catheter was then introduced, and a sponge was placed over the wound.

11th.—Patient is much relieved of the aching pains of the last few days, but complains of shooting pains in the region of the wound. Temperature normal; tongue somewhat furred.

15th.—The sponge has been removed, and the catheter has been taken out of the bladder. Patient looks much better; his temperature is about normal; the urine passes entirely by the wound.

17th.—Patient can hold his water for about two hours. The wound is healthy, and in every respect the case is going on well.

21st.—Patient remains in hospital; the wound is healing well; he is in little pain, and convalescence now is merely a matter of time.

EPITHELIOMA OF PENIS—AMPUTATION.

(Under the care of Mr. BRYANT.)

Charles P., aged fifty-one years, was admitted February 17, 1879. There was apparently no family history of cancer. His father and mother both died very advanced in years, and had always been healthy. He himself had had very little illness, but always had a somewhat tight and long prepuce. He was married and had one son. His occupation was that of a mason in marble work. In March, 1878, he stated that he first noticed a few small warts round about the corona of the glans penis, and these by their growth prevented the foreskin from being drawn back. The warts increased in size, became inflamed, and then sloughed. About Christmas, whilst micturating, the whole end of the penis with a considerable portion of the foreskin fell off. Patient was presumably in poor circumstances and badly nourished, as he was admitted to Guy's Hospital from Shoreditch Infirmary.

On admission, the whole mass of the penis was blackened and presented a ragged, irregular appearance, apparently consisting mainly of prepuce. No structure could be made out. Under the influence of constant irrigation with carbolic acid solution, the sloughs partly cleared off, and the penis was seen to be covered with rocky fungating granulations. The sloughing extended into the scrotum and down the left side. The urine, which was retained well enough, when passed escaped by two openings in the ulcerated mass. There was no swelling of neighbouring glands.

Patient was put upon good diet, and quinine and iron were given internally.

February 21.—To-day Mr. Bryant removed the entire cancerous mass. Three needles were passed through at the root of the penis, two laterally and one vertically; cautery wire was then passed round the base of the growth, guided by the needles, and the parts were slowly separated. On section no trace of the normal structure of the penis could be made out.

22nd.—Patient seems to be none the worse for the operation. He has perfect control over the bladder. Temperature 100°.

26th.—The pulse and temperature are normal; the sloughs are coming away from the cauterised surface; the urine passes freely, and is retained perfectly between the intervals of micturition.

March 1.—The sloughing surface is decreasing in size. The general condition of patient is improving.

14th.—The sloughs have all come away, and a healthy granulating surface is left. It was feared that all the affected tissue had not been removed, but there is now no trace of disease anywhere.

Patient remained in the hospital until April 1, when he left. The wound had quite healed, and apparently, although at first sight the disease had seemed too extensive to admit of treatment, no trace of a malignant growth remained in the tissues.

STRUMOUS CERVICAL ABSCESS TREATED WITH THE GALVANO-CAUTERY.

(Under the care of Mr. BRYANT.)

Alice G., aged fourteen years, was admitted on April 1, 1879. There were no points of interest in her family history. About twelve months ago she first noticed a swelling on the right side, just below the angle of the jaw. She was then under medical treatment, and after a time had the swelling lanced. The wound discharged matter for some time, and then closed. About a week before admission the wound re-opened and again began to discharge. When admitted, patient was a somewhat strumous-looking but healthy girl. Just beneath the angle of the lower jaw on the right side was a cicatrix of an old wound, and an enlargement, apparently glandular. The skin over it was reddened. Under the chin there was a similar swelling about the size of a walnut. This commenced about two weeks previous to admission. There were no bad teeth nor could any other obvious cause of irritation be found. In other respects patient's condition was good. Menstruation had not commenced.

April 12.—To-day Mr. Golding-Bird treated the swelling on the side of the face by his method of galvano-puncture.

The apparatus used consisted of an oval plate of silver, about three inches in its long diameter, two inches in its short; with the centre of this was connected a copper wire, to which was attached a piece of zinc shaped like the blade of a dagger, for insertion into the gland. The zinc passed through an oval plate of vulcanised indiarubber, which was used to keep it in position. A piece of lint kept soaked with salt water, and placed on the chest, received the silver plate, and the gland having been punctured with a lancet, received the zinc terminal.

16th.—The apparatus has been kept applied until this afternoon. Patient has once or twice complained of pain in the gland, but has been easier to-day. A linseed poultice has been applied.

19th.—On removing the poultice last night, the destroyed glandular mass came away with it, and left a tolerably clean surface discharging a little pus.

21st.—A shallow healthy wound remains, which is being dressed with carbolic solution.

DOUBLE PSOAS ABSCESS, TREATED BY INCISION AND IRRIGATION WITH IODINE WATER.

(Under the care of Mr. BRYANT.)

Eliza L., a widow, aged forty-nine years, was admitted on January 13, with symptoms of double psoas abscess. Until about three years before, patient had always enjoyed good health. About that time, from having been in good circumstances, she became very poor, and had to work hard for her living, and her health became affected. She then noticed that she had considerable pain in her back, increased by movements of the spine. In about eighteen months she noticed three swellings—one in the right inguinal region, one in the right lumbar region, and one in the left groin. These swellings gradually increased in size, and three months before admission presented a pinkish appearance.

When admitted, patient was pale and not well nourished. On the left side in the groin, outside the femoral vessels, was a tumour about as large as a hen's egg, which upon pressure above Poupart's ligament gave distinct signs of fluctuation. Fluctuation could also be made out on deep pressure over the left hypochondriac, lumbar, and inguinal regions. On the right side there were two large swellings, the larger occupying the hypochondriac and lumbar regions, the smaller and more prominent one pointing close to the anterior-superior iliac spine. These were separated by a slight groove, but fluctuation was conveyed on pressure from the one to the other. Patient complained of great pain when the upper lumbar and last dorsal vertebræ were pressed. Patient's temperature was 99·2°. A good diet was ordered, and a mixture of quinine and iron was prescribed for her.

January 23.—To-day an incision was made on the right side over the lumbar portion of the swelling, parallel to the ribs, and about twenty ounces of pus were let out. The cavity was then irrigated with a warm watery solution of iodine, and lint steeped in terebene was placed over the wound.

28th.—Patient's temperature has twice reached 104° in the evening. This morning it is 99·5°. She complained of cold sweats in the night.

30th.—Another incision was made on the right side just below the crest of the ilium, and subsequently the two incisions were made to communicate. The treatment of irrigating the cavity of the abscess with iodine water has been continued.

February 8.—Since last note the temperature has not risen above 101°, and patient, although very weak, is going on satisfactorily.

12th.—There is now almost no swelling on the left side, the pus from that side evidently passing by the opening on the right. The lumbar wound has almost healed. There has been slight trouble with bed-sores.

March 6.—There has been nothing worth noting in the course of the case since last note. The temperature has never been much above normal; the discharge has been free, but not profuse, until a few days back, when it ceased. Patient has been in a very weak state. To-day an opening was made on the left side below Poupart's ligament, and about two pints of fetid pus escaped. The iodine water irrigation is being used.

13th.—Patient has improved since the last incision was made. Her appetite is better, and she sleeps well. The discharge comes from both sides, but is becoming less. Temperature is about normal.

25th.—Patient has on the whole been steadily improving. The discharge escapes from both sinuses, but is not excessive in quantity. A porous plaster jacket has been ordered for patient.

31st.—There is only a slight discharge from the left sinus; none from the right. The temperature is about normal, and patient, although very weak, is improving.

April 5.—There is a fair amount of discharge from the left sinus; otherwise the condition is unaltered.

12th.—The right sinus has nearly healed up, and there is not much discharge from the left. Temperature is normal.

21st.—Patient is able to sit up in the ward. The porous plaster casing is being worn to secure immobility of the spine. The discharge is now very little, and no further hospital treatment seems at present necessary.

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Medical Times and Gazette.

SATURDAY, MAY 3, 1879.

THE SUPPRESSION OF QUACKERY.

An address by any man of known ability, on quackery, would excite in some degree the attention of medical men, as their life-work necessarily makes them more intimately, widely, and exactly acquainted with the varieties and the evils of quackery than any other class of men can possibly be. But when a physician of Dr. Richardson's reputation, powers, and eloquence discourses on phases of quackery and medical defence, his utterances cannot fail to attract great attention and interest. We are sure, therefore, that his address to the Medical Defence Association, which we had the pleasure of publishing last week, has been widely read and studied, though it would, perhaps, have hardly been expected that even he would be able to say anything new on this subject. If, however, he had old things only to say, he was sure to say them in some new and striking way. Accordingly, when he describes the forms of irregular practice that have come under the notice of the Association, differentiates the various families of quacks, and portrays them, he does it so graphically that though he presents no species of quack not already known, his word-pictures are excellent reading. They may

lead medical men even to think that they know more now of the "terrorist family," the "homicidal family," the "nostrum-monger family," the "specialist family," and the "protected family" of quacks than they did before; while to the public they will convey new and, it is to be hoped, valuable warnings.

When, however, Dr. Richardson proceeds to speak of the "suppression of quackdom," whatever pleasure and satisfaction may have been excited in the minds of his readers by the preceding parts of his address will, we venture to think, be succeeded by disappointment and surprise. All will agree with him when he admits, though with regret, that legally qualified medical practitioners need, and have a right to, legal protection, and that the sick also ought to be protected against quacks; but we doubt very much whether the Legislature will ever do more in this direction beyond making the assumption of any false medical titles penal, and we do not see that Dr. Richardson suggests more than this. He speaks, indeed, of preventing quacks from "assuming false medical practice," and says that the Association has urged this on Government, and "with good effect." But he does not explain what this suggested amendment of the Medical Act is, and we must confess that we do not understand what the words "prevent quacks from assuming false medical practice" mean. Dr. Richardson says that, if the amendment suggested by the Association passes into law, "it will correct dangerous practices in surgery as well as in medicine, and it will supersede altogether the old and impracticable power of the Apothecaries' Company—a power always partial in action, uncertain in its exercise, and of little real use and authority." Such a result would be indeed a triumph for the Association, and we should be delighted to compliment that energetic and useful Society, and to congratulate the profession and the public, upon such an achievement. But at present this new bit of legislation seems to be "in the clouds," and we must take leave to doubt whether any English Government will ever venture to propose that people shall be forbidden to consult quacks if they choose to do so, or to forbid any man from giving medical advice to those who are fools enough to ask it, so long as he does not in any way represent himself as being a qualified medical practitioner.

Beyond that shadowy hope Dr. Richardson does not, so far as we see, suggest any new means of defence against the families of quacks that we have mentioned. But when he comes to treat of the "counter-prescribers," he does propose something that is certainly entirely new, and that will, we suspect, be generally thought an astounding mistake. He deals tenderly with this class of "irregular practitioners," and is of course quite right in observing that no one would dream of classifying them with the quacks before spoken of. He is right also in believing in the impossibility of altogether preventing counter-prescribing. To some extent and for some minor ailments it will always continue, by (to use Dr. Richardson's phrase) "the public determination," and no one can hope or wish to prevent it absolutely and entirely. But when Dr. Richardson goes on to propose to remedy the evils of counter-prescribing by converting practical pharmaceutists into a new and lower order of medical men, and so legalising counter-practice, he obliges us altogether to part company with him. His medical pharmaceutists are to be manufactured by the Apothecaries' Society and the Pharmaceutical Society. They are to be educated and examined by the latter Society, as the pharmaceutical chemists at present are, and they are further to pass all those parts of the present examination, with the exception of midwifery, for the licence of the Apothecaries' Hall, that are not included in the pharmaceutical examination; and then they are to confine themselves solely and entirely to counter-practice, never visiting out of doors—and of course, we suppose, never undertaking really serious cases. For years the profession have been endeavouring to elevate and enlarge the standard of medical education, and now Dr. Richardson proposes to re-create the old apothecary with an open shop. Can anyone, besides Dr. Richardson, believe that his new order of imperfect medical men would confine their practice within the prescribed limits, or that the public would always or generally distinguish between the medical man and the medical-pharmacist, or between the latter and any grocer or other tradesman who sells drugs? Dr. Richardson "ventures to think" that, by his plan, "the medical requirements of the community would be supplied on a sound and uniform basis." We venture to think that the scheme is a wildly mistaken and impracticable one, that it would injure and lower the medical profession, and would disastrously affect the public weal. Or, at any rate, such would be its effects till all mankind are so enlightened and so wise as to refuse to seek advice from either quacks or imperfectly-educated medical men; and neither this scheme nor any other kind of legal protection will then be necessary for either the public or the profession.

Dr. Richardson's proposal is based on the principle that the public necessity is of pre-eminent importance; and on "the open fact that what is best for everybody is best for our profession and for every profession"—which surely no one will deny. He is fully prepared, however, to be called a visionary for making it; but he adds, "the vision will certainly become, in time, virtually, if not in all details, actually the fact." Should he, however, have to bear being called a visionary, he will have the solace of finding himself in good company. His vision is "virtually, if not in all details," no new vision; and similarly, when he dreams of a day "when all the learned professions will cease to exist," the dream is no new one. Others besides him have believed in the perfectibility of man on this earth, and have taught that the time will come when everyone will do only that which is right and best; and long ages ago that grand seer, the Prophet Isaiah, described a vision of a city of which "the inhabitants shall not say, I am sick."

"TYPICAL" CASES.

THERE is perhaps no fallacy more common in medical literature than the publication of what are styled "typical cases." Not a year passes but some new method of treatment, some novel operation, or strange drug, is described in glowing language, vaunted as a never-failing cure for the disease, whatever it may be, and puffed in every medical print. And the usual language is, that the author has now used this means of cure "in a large number of cases, and with the best results" (terms too vague to be disproved), and then he goes on to give in illustration a few "typical cases."

Now, first we may remark that different persons have different notions as to what a large number is, and that therefore this term fails to convey any exact idea. Next, that if the number be known, it is just as easy to state it, as to say "a large number," and that therefore, when we find the latter expression used, we may fairly infer that the writer who is reduced to it has no exact record of his cases, and does not know how many, but is speaking from memory only; and in matters of this kind, memory, unchecked by written notes, is very apt to deceive, and to represent that which is past unduly coloured by the writer's present impressions. Next, that the term "the best results" may mean anything—it signifies only that the author's hopes were realised or exceeded. Now, the value of this, in a scientific sense, depends entirely upon what the writer expected. If he thought the patient was going to die, and his treatment was followed by cure, that he may certainly call "the best

result." But it may have been that the patient would have got well just as fast without the treatment, or possibly much faster and with less suffering. The value of these expressions, "a large number," and "the best results," depends upon what may be called the personal equation of the writer—his knowledge, judgment, and candour. They are absolutely worthless in a scientific sense. The using of such language shows that either the writer does not understand the conditions of scientific proof, and that therefore probably his judgment on a scientific question is not worth much, or else (if a man knowing the conditions of scientific proof, yet prefers to hoodwink the profession and the public with statements of this sort) that his sense of truth is not so keen as his love of fame. Statements of this kind are nothing more than expressions of opinion, and they should be frankly put as opinions, and not dressed up in the garb of facts.

This, however, may be thought a verbal criticism. What we wish here to point out is, that to call a case "typical" is to beg the whole question at issue. Let us suppose, that in a case of disease previously thought irremediable, the use of a particular medicine is followed by recovery. Then, if that case be really typical, there can be no doubt that the treatment in question certainly ought to be applied to every case of the kind. But if the treatment at issue is often followed either by failure or by consequences worse than the disease, then that case is not at all typical, but may be even quite exceptional; and it is inaccurate, and misleading—indeed, untrue—to call it "typical." Therapeutical questions are so complex; there are so many fallacies attending inferences as to the effects of treatment upon disease, that single cases, as a rule, teach nothing. The only way to prove therapeutic questions is to keep records at the time of every case treated in the given way; and when sufficient material of this kind has been accumulated, to publish in detail *the whole* facts of *every case*, whether successful or not. Memory is very fallacious; it is only records made at the time which can be trusted.

Let us give a sketch of the way in which the kind of therapeutical nonsense which we have criticised is evolved. To avoid any possibility of a personal application, we will take an instance purely imaginary. We will suppose that somebody thinks he has found out, that residence on a clay soil, combined with the administration of decoction of horse-radish, will cure phthisis. So he sends fifty people whom he thinks consumptive to a place built on a clay soil, and bids them take his new medicine regularly. He does not take any exact notes of them, for observers of the class we are describing seldom do. Five of his patients are suffering from some slight bronchial catarrh only, and, having no phthisical change in their lungs, recover. "Good!" says the author, "five completely cured!" Five others have exceptionally strong constitutions, or are otherwise under an accidental combination of favourable circumstances (perhaps living on a spot of gravel), and they get somewhat better. Our author sets down "10 per cent. completely cured, and 10 per cent. marvellously improved." Ten out of the fifty fluctuate, getting now better and now worse, but after three months or so of treatment have undergone no very marked alteration either for the better or for the worse. Our author reasons that these are no worse; but as phthisis is a progressive disease, these patients ought to have got worse, and would have done so on any other plan of treatment; therefore it is clear that they have been benefited. "Twenty per cent. greatly benefited," is the concise statement about these. Ten of his patients get decidedly and rapidly worse. "Well," says our discoverer, "this is only 20 per cent. worse, against 30 per cent. cured or in process of cure." Ten others die; but concerning these, remarks the physician to himself, "They were so bad they would have died under any circumstances; it is not fair to test the treatment by them." Ten find the treatment so disagree with them that they will not stop on the clay soil, or refuse to take the physic. As they did not give it a full trial, of course the author excludes them. Having, as we have said, no exact record of any of them, he tots them up in his head: "Let me see, I sent about fifty—A, B, C, D, and E cured; five nearly cured; ten greatly benefited; ten died (but they were moribund to begin with); only ten got worse; many greatly benefited. Yes, on the whole, the effects of the clay soil and the decoction of horse-radish on phthisis are wonderful!" And he publishes the five cases of bronchial catarrh as "typical" of the effect of clay soil and decoction of horse-radish upon phthisis.

This is, of course, purely a fancy sketch as to its subject, but it is truthful as to the point to which we want to call attention, viz., the method of arriving at results.

The extreme complexity of therapeutical investigations cannot be too much borne in mind. The pathologist, with the dead body on the table before him, and the microscope and the chemical laboratory at hand, often has to confess his ignorance of the nature of the morbid changes which he sees. Still more often has the scientific physician to admit that he cannot say exactly what is the matter with his patient; and our knowledge of the effect of drugs upon the healthy body is yet in its infancy. If then, as to these comparatively simple questions, we still need knowledge, how much more cautious should we be before we think we have solved a problem in which all these sources of error are combined! When we suppose that our treatment has cured a disease, it may simply be from our not understanding the natural course of that disease; or the supposed malady may not have been present; or the effects that we thought due to the remedy may have come from other causes.

Rational therapeutics is to be advanced only by cultivating the greatest exactness in the recording of cases and the estimation of results, and by reasoning cautiously and from wide data—*i.e.*, a large number of cases,—and, above all, by observing the most impartial truthfulness in the publication of our experience. Vague statements, and such a *petitio principii* as a "typical case," should be left for advertising druggists; they should have no place in scientific medicine.

We ought perhaps to add, lest we should be misunderstood, that our remarks do not apply to the describing of a case, as is often done by teachers to students, as typical, because it illustrates the well-known characters of a class; such cases may be really typical. What we have condemned is the recommending of imagined discoveries as to treatment by so-called typical cases.

THE WEEK.

TOPICS OF THE DAY.

The Royal Institute of British Architects recently invited a discussion on the subject of improved artisans' dwellings, and Sir James Watson volunteered to read a paper on the method adopted in Glasgow for carrying out the City Improvement Acts in that town. Mr. Charles Barry, the president of the Institute, occupied the chair, and introduced Sir James, who commenced his address by observing that it would be generally admitted that if we would seek to elevate the great mass of the industrial population in our large cities, we must endeavour to provide them with comfortable dwellings. If the home of the working-man be cheerless, dark, and unwholesome, he will naturally be driven to resort to the warm and well-lighted public-houses, where he must consume intoxicating liquors. Sir James then proceeded to explain the steps which had been taken in Glasgow under the Improvement Act of 1866, at which time the density of the population in some parts of the city

amounted to about 1000 per acre, and he described the introduction of a model lodging-house for the very poor, where persons unable to keep a house were provided with lodging, including fire and gas, and cooking utensils, at 3½d. per night, or 1s. 9d. per week, Sunday gratis. There are now five of these houses belonging to the Trust, which are well frequented and self-supporting; and two more are in course of erection. In the discussion which followed, the Chairman said the practical difficulty in London was to provide for the very poor class last referred to by Sir James Watson. Mr. McCullagh Torrens, M.P., urged the necessity for immediate legislation to put a stop to the indecent, dangerous, and horrible state of things existing in certain overcrowded parts of the metropolis. Sir Sydney Waterlow recommended that the cleared lots of land should be put up to public auction, and allowed to be utilised at their market value. Mr. Honyman expressed his belief that, by the adoption of different plans of building, a larger population per acre than had subsisted in the closes of Glasgow might be accommodated under healthful conditions.

A recent inquest held by Dr. Diplock has elicited a statement of an unsanitary condition of affairs in Chelsea which is almost incredible. The inquiry was held on the body of a child aged six, residing with its parents at 13, Green-street, Chelsea. The father, a letter-carrier, deposed that the deceased was taken suddenly ill with vomiting about five o'clock on the afternoon of the 18th ult.; in the course of a few hours it got rapidly worse, and, although medical assistance was obtained, it died early the next morning. Mr. C. W. De Lacy Evans, M.R.C.S., said he was called in to see the deceased, who was then in a comatose state. He did not think it necessary to make a post-mortem examination, as the cause of death was pointed out by subsequent illness in the house. On the same day that deceased died, five other children of the same family, and the mother, were attacked with diphtheria and sewage-poisoning of the most malignant type, the result being that in a few hours three more deaths occurred. The mother and one child were still in a somewhat critical condition. He took every precaution to prevent the further spread of the disease, and on inspecting the drains he found that one situate at the back of the house was stopped up, and a most offensive smell arose from it. There was another drain in a side passage near the back of the house, and that was also in a very offensive state. The water used for drinking purposes was very bad, and smelt strongly. The cistern was not properly covered in, and was lined with cement, which was coated with green filth to the extent of from a quarter of an inch to half an inch in thickness; it had evidently not been cleansed for a long period. In answer to the jury, the witness said that during the last few days the drains had been repaired, and the cistern thoroughly cleansed. There could be no doubt that the death of the deceased was caused by diphtheria and sewage-poisoning. The malignant character of the disease was shown by the fact that it proved fatal within a few hours of seizure; in one case the child was playing about at three o'clock in the afternoon, and in the evening was dead. A juryman observed that the body of a dead cat was taken out of the cistern. The jury, in delivering their verdict, strongly censured the owners of the property for not having kept the drains in proper order.

The late Sir Walter Trevelyan's legacy to Dr. Richardson has given rise to a great deal of discussion, and a correspondent of the *Times*, evidently regarding the matter from a legal standpoint, says:—"I should call Dr. Richardson's position a very neat dilemma. I have not seen the words of Sir Walter Trevelyan's bequest, but I take it that they create a trust. Dr. Richardson, therefore, must either sell the wine, and thus distribute poison and encourage vice; or he must waste the wine, and thus commit a breach of trust for which he will be personally liable. I hardly like to suggest the only way out of the dilemma, but I think that possibly Dr. Richardson might drink the wine, and keep a scientific record of the results."

The present Registrar-General, Mr. Graham, has taken advantage of the issue of his report for the year 1877, to announce his coming retirement from the post he has so ably filled for the past thirty-seven years. He does not wish to undertake the duties of compiling the returns of a fourth census, and he has decided to resign his appointment before the period for taking it falls due. He gives a short sketch of the alterations and improvements in registration of births, deaths, and marriages which have, with much advantage, been introduced since he accepted office, and he bears willing testimony to the ability and assiduity of the staff over which he has so long presided. In conclusion, he expresses his acknowledgments to Dr. Farr for the important services he has continuously rendered, and adds—"To his scientific researches and reports I attribute any reputation that may have accrued to the General Register Office of England and Wales from the time he accepted office in this department."

The application of Dr. Phillips for a new trial of his case against the South-Western Railway Company, on the ground of the inadequacy of the damages granted, was last week argued in the Queen's Bench Division of the High Court of Justice, before the Lord Chief Justice and Mr. Justice Lopes. After hearing the arguments, the Lord Chief Justice said: "I have no hesitation in stating that I think that the damages granted are inadequate; but it would not be right to send the case down for a new trial without previously laying down some rule for the guidance of the Judge, who might have to direct the jury in the case, and as the case is one of considerable importance, the Court will take time to consider."

The report of the water examiners on the metropolitan supply during the month of March last states that the water taken from the Thames by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, though of better quality than in February, was still suffering from organic contamination. The best water supplied from this source was delivered by the Lambeth Company, and the worst by the Chelsea Company. The last-named Company's water contained fungoid growths and moving organisms, in consequence of inefficient filtration. The water taken from the river Lea by the New River and East London Companies was of somewhat better quality; it was not, however, efficiently filtered by the last-named Company, and moving organisms were found in the water drawn from the mains of this Company. On turning to the record of the state of the water in the Thames during the month of March, it is found that it was indifferent from the 1st to the 7th of the month; it then became clearer, and remained in a good condition down to the 31st. In the river Lea, also, the water was indifferent during the earlier portion of the month.

We have more than once reviewed in these columns the annual reports of the United States Marine Hospital Service, and we have now to announce the appointment of Dr. J. B. Hamilton to be Surgeon-General and head of the Department, in succession to Dr. Woodworth, who has held that post since 1871. The appointment of Dr. Hamilton will insure the continuation of the valuable work so ably carried out by his predecessor. Prior to 1871 the Marine Hospital Service, like many others subordinate to the Executive Department of the United States Government, suffered considerably from political influence and intrigues: surgeons obtained positions through political friendships instead of through

merit, and Congress was annually called upon to make an appropriation for the support of the Service. Since 1873 no appointments have been made except upon examination, and the Service has been entirely self-supporting, whilst the number of surgeons employed has been considerably increased.

The monthly return of the Registrar-General for Scotland for March last shows that in the eight principal towns the births of 3799 children were registered, and 2488 deaths. This is the lowest number of deaths registered during the month for the last ten years, and, allowing for increase of population, is 674 under the March average for the same period. Of the 2488 deaths, 1026, or 41 per cent., were of children under five years of age. The mortality was at the rate of 19 per 1000 persons in Edinburgh, 20 in Leith, 22 in Dundee and in Aberdeen, 25 in Glasgow, 28 in Perth, 30 in Greenock, and 31 in Paisley. Whooping-cough continued the most fatal of the epidemics, having caused 148 deaths during the month, or 5·7 per cent. of the whole mortality. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 585, or 23·5 per cent. Those from consumption alone numbered 341, or 13·7 per cent. Three males and three females were aged ninety years and upwards, the eldest of whom (the widow of a master baker) was aged ninety-six years.

At a sitting of the Royal Academy of Medicine of Belgium on April 26, Mr. Spencer Wells was elected an honorary member "in consequence of his great services in scientific progress."

THE LATE DR. MURCHISON.

At the last meeting of the Clinical Society, before the usual proceedings of the evening began, the President, Dr. Greenhow, an old and valued friend of Dr. Murchison, took occasion to make the following remarks:—"Gentlemen,—I cannot proceed to the ordinary business of the evening without briefly referring to the great loss which we have sustained by the premature and sudden death of our distinguished associate, Dr. Charles Murchison; and I feel the more bound to do so because Dr. Murchison was one of the first hospital physicians who, at the invitation of the promoters of this Society, agreed to co-operate in its foundation. He was a member of our first Council, and diligently attended its meetings at a time when the success and prosperity of the new Society depended mainly upon the judgment and care with which the objects for which it was founded were carried out. At a later period he served the office of Vice-President, and we must all recollect with what ability and urbanity he presided at our last annual meeting. Nor was Dr. Murchison only a useful member of our governing body; at a very early period he took an active share in the proceedings of the Society. At our second meeting he communicated some cases of death with high temperature in rheumatic fever, as a supplement to a paper on that subject by Dr. Herman Weber. The debate which took place on that occasion first, I think, directed the attention of the medical profession of this country to this very important subject. I am, indeed, aware that several cases had previously appeared in the weekly journals, and notably some reported by Dr. Ringer, to whom we owe so much in reference to the scientific observation of temperature in disease, but these cases had not obtained so much notice as they deserved. Dr. Murchison was also a member of the Committee of this Society which investigated the influence of quinine in reducing the pulse and temperature of the body in high fever. Omitting several intervening communications, I may observe that the final paper in the last volume of our *Transactions*, upon the Period of Incubation in Scarlet Fever and several analogous diseases, was communicated by Dr. Murchison. Dr. Murchison had received a thoroughly good medical education, and this was undoubtedly the foundation upon which he built his subsequent reputation. He was educated in Edinburgh, and graduated with honours, having been awarded a University gold medal for his graduation thesis. It generally happens that when a man has made a mark in any subject, early in life, that subject is followed up in his subsequent career; but, curiously enough, Dr. Murchison's thesis was upon a surgical subject—tumours, I believe—and was based upon the observation of cases during the time that he was House-Surgeon in the Edinburgh Infirmary. Dr. Murchison was a pathologist in the true meaning of the word, for he was not only well acquainted with the morbid products found after death, but had also studied carefully the various disordered processes in the living body, of which these products are the result. He was also a very indefatigable, able, and intelligent clinical worker; the records of his cases, mostly dictated by himself, were models for clearness and brevity combined with completeness—no point of importance being omitted, and no irrelevant matter or useless words being inserted. He must, in fact, have made case-taking a subject of special study, in which we, the members of the Clinical Society, may advantageously strive to imitate him. Dr. Murchison was a most excellent clinical teacher, and practised the golden rule of teaching by 'line upon line, and precept upon precept.' The vast amount of work done by Dr. Murchison is well seen in the extent of his published writings. The mere list of his contributions to the Pathological Society occupies several pages of the index volumes to the *Transactions*; and, without referring to his other works, I may point to his classical treatise on Continued Fevers as being not only the most complete work that has ever been written on that important subject, but also as being an enduring monument to his memory, for no future writer can touch the subject without referring to his labours. I am sure that many present will cordially agree in the remarks that I have ventured to make. It seemed to me only right that some notice should be taken of the event which has removed from amongst us one of our most distinguished workers; and, although I see around me several gentlemen who would have performed the duty better than myself, I regarded it as at once my duty and my privilege, as your President, to act as your mouth-piece upon the sad occasion. In conclusion, I would venture to say to my younger friends who may be present—Do not follow Dr. Murchison's example as regards the amount of work you undertake (for I am persuaded he worked much too laboriously), but strive diligently to emulate his zeal for knowledge, and to perform with equal thoroughness whatever work you may attempt."

THE WORKING OF THE VIVISECTION ACT.

The report of Mr. G. Busk, the Inspector appointed under the Vivisection Act, showing the number of experiments performed on living animals during the year 1878, has recently been issued. The total number of licences in force during any part of the year 1878 was forty-five; but as of these it would seem that eighteen were not acted on, the number of licensees who need be specified is reduced to twenty-seven. The total number of experiments performed under these twenty-seven licences, and under the certificates, according to the returns received from each licence, was about 461. Of these 317 were performed under the restrictions of the licence alone, and the remainder under special certificates. Upon full consideration of all the experiments, and the mode in which they were performed, the inspector is of opinion that the extreme number of cases in which an amount of suffering worth notice was inflicted would not

have exceeded forty. In twenty-four of these cases the animals did not suffer from the actual experiment, but, as in the experiments instituted for the investigation of certain epizootic diseases, from the after-consequences only. In sixteen cases alone—and these were confined to two sets of experiments—is there reason to believe that any considerable amount of suffering was directly inflicted. As regards the experiments in which the animal is allowed to survive the state of anæsthesia, the amount of suffering, where any at all was inflicted, must have been very slight, in the majority of cases not being greater, probably, than that which necessarily attends the presence and healing of a wound of the integument. As a matter of fact, of the experiments performed under the licence alone, at least 200 appeared scarcely to come within the scope of the Act at all, and might probably have been performed independently of it, as not being calculated to give pain; but as they were performed under the licence they are included in the return. The number of experiments or demonstrations of physiological facts performed under certificate is forty-seven. This number, distributed amongst eleven physiological schools, gives an average of less than five for the instruction of each class, although the discretion of the teachers is unlimited as to the number of such demonstrations they may consider necessary. The Inspector for Ireland reports that the total number of licences in force during any part of the past year was ten; in five instances the licence was not acted upon; the number of experimenters was, therefore, but five. The total number of experiments amounted to twenty-four; of these four were under the restrictions of the licence alone, and the other twenty under certificate for experiments under anæsthetics, illustrative of lectures. From the returns received, it would appear that in no case has pain been inflicted, and that some of the experiments might have been legally performed without the licence under the Act.

DEATH OF PROFESSOR GUBLER.

Dr. Adolphe Gubler, Professor of Materia Medica and Therapeutics in the Paris Faculty, died in his fifty-eighth year, on April 20, at his country seat near Toulon, where he had been residing since October, from cancer of the stomach—the disease to which Trousseau also, his predecessor in the chair, fell a victim. Gubler had been Professor of Therapeutics since 1868, and his teaching had always proved most attractive to the students. Its scope was of the widest, his knowledge of all the branches of medical and accessory science being almost encyclopædical, and his power of communicating it very considerable. He was also a good clinical teacher, and retained his hospital appointment with his professorship. Having married a daughter of the celebrated sculptor David of Angers, he was introduced into a large artistic circle. We do not know whether an autopsy was performed; but such would have an incidental interest from the fact that many years ago he received from the hands of a lunatic, with whom he was travelling, a pistol-bullet which lodged in his chest.

THE SALE OF POISONS.

We last week remarked on the decision which had been come to in the High Court of Justice as to the sale of drugs and poisons by co-operative stores, the effect of which is to confine the monopoly already secured to pharmaceutical chemists. We might be the less troubled at this decision, whether reversed or not, were any special security granted to the public by this monopoly, but the narrative of a case which recently occurred in the Isle of Wight is interesting on this head. A gentleman afflicted with a certain degree of mental derangement, such as to necessitate treatment but not confinement, was under the care of Dr. Wright at Finchley. He left that place accompanied by a gentleman, as a companion quite as much as for the purpose of looking after him, and arrived in the island in good spirits. He had no suicidal tendency, and had no despondent turn; but, having for a few minutes eluded the vigilance of the gentleman with him, he entered a chemist's shop, and procured four ounces of laudanum—for, as he said, outward application. Of course he was a perfect stranger to the chemist, but apparently found no difficulty in procuring such a large quantity of opium. Next morning the bottle was empty, and the unfortunate gentleman dead. At the inquest the druggist treated the whole matter with indifference, and maintained that he had a perfect right to do as he had done. Legally, so he had; for, strange to say, laudanum is among those things which may be thus dealt with. Nevertheless, it seems to us that, if monopoly is to give such results, it might not be amiss to try free trade again.

THE ROYAL COLLEGE OF PHYSICIANS.

At the meeting of the Royal College of Physicians of London held on April 24, the following members of the College, having been nominated by the Council, were elected to the Fellowship, viz.:—Henry Stevens, M.D. Lond., Sutton; Frederick Bagshawe, M.D. Camb., St. Leonards; Arthur Wellesley Edis, M.D. Lond., Wimpole-street; George Charles Bright, M.D. Oxford, Cannes, France; William Squire, M.D. St. And., Orchard-street; Frederic Taylor, M.D. Lond., St. Thomas-street; Edward Isaac Sparks, M.B. Oxford, Mentone, France; John Williams, M.D. Lond., Harley-street; Stephen Mackenzie, M.D. Aberd., Finsbury-square; James Pearson Irvine, M.D. Lond., Mansfield-street; William Smith Greenfield, M.D. Lond., Palace-road, Lambeth; William Richard Gowers, M.D. Lond., Queen Anne-street. Three gentlemen who had passed the required examinations were admitted members, and licences were granted to twenty-one who had also satisfied the College examiners. The names of all these will be found elsewhere in our columns. The College resolved that it be referred to the Council "to consider and report to the College whether any, and if so what, alterations should be made in the regulations affecting the education and examination of candidates for the licence of the College." We understand that it has for some time been considered very desirable to have these regulations revised and the various alterations made in them collated and published, but that the work has from time to time been postponed on account of a belief that the establishment of the conjoint examination system was imminent. It must therefore be supposed that the College has lost faith in any proximate passing of a medical Act Amendment Bill, and in any early establishment of the English Conjoint Board.

THE SUSSEX COUNTY LUNATIC ASYLUM.

The twentieth annual report of the Sussex County Lunatic Asylum for the year 1878 records a larger number of admissions during the period than during any one year since the Asylum was opened. With a view, therefore, of providing increased accommodation, leave has been obtained from the Home Secretary and the Court of Quarter Sessions to alter and adapt the apartments now occupied by the Resident Medical Superintendent for the reception of patients, and to build for him at the west angle of the Asylum a semi-detached house, communicating with the main building by a covered way. This plan, which will give sixty-four additional beds, appears to complete the maximum amount of accommodation to be obtained in the County Asylum as at present constituted, and will postpone the question of making further provision by the county for its

lunatic patients for the next few years. Dr. Williams, the Medical Superintendent, reports that the health of the Asylum during the year has been satisfactory, the deaths up to the last six weeks of the period having been somewhat below the average; the severe weather of these latter weeks was, however, greatly felt by the aged and infirm, and several succumbed to it who might otherwise have lingered on for some weeks or months longer. This circumstance has caused the mortality for the year to be a little above the average. Financially, the past year is stated to have been a very satisfactory one, as the weekly maintenance was only 9s. 4¾d. per head against 10s. in the previous one, whilst the balance on the farm operations gives the substantial sum of £550.

CONFERENCE OF MEDICAL OFFICERS OF HEALTH.

A JOINT meeting of the North-Western, Northern Counties, and Yorkshire Associations of Medical Officers of Health was held on the 24th ult. in the Grand Jury-room, at the Town Hall, Leeds. Mr. S. W. North, of York, President of the Yorkshire Association of Medical Officers of Health, occupied the chair, and the meeting was very numerously attended by members of the different associations. In opening the proceedings, the chairman said it afforded the members of the Yorkshire Association the greatest satisfaction to welcome once again an associated meeting of the Northern and District Associations. He believed that it would bring them in contact with many persons whom they wished to know, and would tend to a great extent to stimulate their own labour, and increase the bond of sympathy and union which ought to exist amongst all men who were engaged in the public service. Dr. Goldie, Medical Officer of Health for Leeds, then read a paper entitled "A Retrospect of the Hygiene of Leeds"; and Mr. F. Vacher, of Birkenhead, contributed a paper on "The Diseases of Animals which do not necessarily render them unfit for the Food of Man." The reading of each of these papers was followed by a discussion. In connexion with this conference of medical officers of health, an exhibition of sanitary appliances had been arranged by Dr. Goldie, and was held in the Leeds Corn Exchange; the exhibition, though not very large, included articles from nearly all the local manufacturers of sanitary appliances, and was carefully inspected by the members of the different associations, who expressed their satisfaction at the show which had been got together through Dr. Goldie's exertions.

SUGAR IN BLOOD.

IN a recent paper read before the Royal Society, Dr. Pavy expressed the following conclusions as constituting the issue of the results recorded in the communication:—"That the results bearing on the physiology of sugar in relation to the blood derived from the application of the gravimetric process, and given in my former communication to the Royal Society (vol. xxvi., page 846), are confirmed by those yielded by the ammoniated cupric test, described by me in the *Proceedings*, vol. xxviii., page 260. That the disappearance of sugar from the blood after withdrawal from the system takes place in the gradual manner that might be expected from the effect of ordinary decomposition, and presents nothing to support any conclusion regarding the destruction of sugar in the blood as a physiological phenomenon. That there appears to exist a reducing substance besides sugar in the blood, which is of a sufficiently stable character to resist the effects of advanced putrefaction. Expressed as sugar, it amounts to from 0·200 to 0·300 per 1000. These figures, therefore, would appear to require to be deducted from those which have been given as representing the amount of sugar present in the blood. That the passage of a current of oxygen through the blood does not exert any appreciable effect in the direction of oxidation of the sugar."

THE VACCINATION BILL (IRELAND).

THE following petition has been presented to the House of Commons by the President, Vice-President, and Council of the Royal College of Surgeons in Ireland:—

"That your petitioners, being aware that the vaccination law of Ireland is in many respects defective, regard with satisfaction and approval the introduction into your honourable House of a Bill to amend the Vaccination (Ireland) Acts. That your petitioners are aware that the enforcement of compulsory vaccination in Ireland has been seriously impeded by the insufficiency of the arrangements for obtaining information respecting unvaccinated persons, and for the detection and punishment of offenders, and are of opinion that the changes of the existing system proposed by the said Bill will involve the performance of greatly increased duties by public vaccinators. That your petitioners observe with regret that no provision is made by said Bill for the granting of awards such as are granted under the law for England for successful vaccinations, and that the fee for each vaccination in Ireland, as proposed by this Bill, is much less than that paid for similar duties in England, and your petitioners believe that such proposed fee is wholly inadequate for the due performance of the duties devolving upon public vaccinators under said Bill. That your petitioners, therefore, pray that your honourable House may be pleased to amend said Bill, so that the provisions for the enforcement of vaccination in Ireland may be as far as possible assimilated to those now in force in England, and that the public vaccinators of Ireland may be granted remuneration similar in amount to that paid in England for identical service."

CLINICAL EXAMINATIONS.

AT the recent pass-examination for the diploma of membership of the Royal College of Surgeons of England there were some very instructive cases sent from the following metropolitan hospitals,—viz., St. Bartholomew's, Guy's, St. George's, and University College—as lipoma, necrosis of tibia, bones of the forearm and of the skull-cap, femoral aneurism, flat-foot, enlarged cervical glands, fibrous growth from epididymis, anchylosis of the shoulder-joint, carbuncle at the back of the neck, genu valgum, strumous disease of the elbow-joint, syphilitic ulcer on the back of the knee in a boy, epithelioma, dislocated clavicle, strumous abscess in the neck, hydrocele. There was an average each night of eight cases.

THE OBSTETRICAL SOCIETY.

WE beg to remind our readers that the discussion on "The Use of the Forceps, and its Alternatives in Lingering Labour," will be held at the meeting of the Obstetrical Society on Wednesday, May 7. The subject is one with regard to which the opinions of a large part of the profession have changed within recent years. The importance of the subject, and the reputation of Dr. Barnes, who is to open the debate, ought to insure a most interesting discussion.

DIPHTHERIA.

ELSEWHERE we publish as full reports as may be of the discussion on the subject of croup and diphtheria. Whilst dealing with the subject it may not be amiss to say that Langenbeck announced the other day to the German Surgical Society that the Empress had signified to him her intention of giving a prize for the best treatise on diphtheria, the competition being open to men of all nations. The exact regulations and conditions have not yet been announced.

THE RADCLIFFE INFIRMARY, OXFORD.

WE understand that after a long service of upwards of thirty years Dr. Acland has resigned the post of Physician to this institution.

THE GATHERING OF THE CLANS.

We have just received the following petition, addressed by the Royal College of Surgeons of Edinburgh to the House of Commons. Probably it is only the first of a series. What with one thing, what with another, the prospects of the Medical Bill are not grand. The petition runs as follows:—

That this Bill, amongst other matters, makes, in the system of licensing and registering medical practitioners, sweeping and fundamental changes, which your petitioners believe to be neither necessary nor expedient.

That the universities and medical corporations, which have hitherto enjoyed the privilege of licensing the medical practitioners of the kingdom, are to be virtually superseded in their most important functions, which are to be handed over to three conjoint medical boards, constituted by conjunction of the medical authorities, one in each division of the kingdom respectively, and acting under rules which are to be framed by the Medical Council under the sanction of the Privy Council.

That though a species of connexion—which is, however, merely nominal—is to be kept up between the medical authorities and those who are henceforth to be examined and licensed by these conjoint boards, yet that henceforth the medical authorities will be allowed to bear little or no part in the arrangements in regard to the education and examination of medical practitioners.

That the effect of this will be materially to damage the prestige, and probably to cripple the resources, of universities and medical corporations, against which it has not been proved by inquiry that they are unworthy of their privileges, and incompetent to the discharge of the duties hitherto imposed upon them in connexion with these privileges.

That the chief reason assigned for such violent and fundamental changes in the system of licensing medical practitioners is that the existence, as at present, of nineteen licensing bodies—universities and medical corporations—tends to favour downward competition among the bodies, and thereby to render the standard of education and examination not only unequal, but lower than it should be; and, in order to obviate this state of matters, it is proposed by this Bill to establish what is called a uni-portal system—a system, that is to say, constituting one entrance to the medical profession.

That to carry out this object the Bill provides that there shall be established in each division of the kingdom a conjoint board formed by the conjunction of the medical authorities there, by which board all persons seeking entrance into the medical profession are to be examined in medicine, surgery, and midwifery, with the view of thus securing greater uniformity and efficiency.

That your petitioners believe this to be a fallacy, seeing that though there are to be seemingly only three licensing boards, one for each division of the kingdom, yet, owing to the large number of examiners which each board must necessarily embrace, and owing also to the number of candidates to be examined by each board, these so-called conjoint boards must necessarily be subdivided into sectional boards, the result being that the actual number of examining boards will be little, if at all, less than under the present system, and not more easily supervised by visitation than at present.

That it can be proved that since the passing of the Medical Act, 1858, the examinations of all the medical authorities have been greatly improved, and rendered more extensive, more stringent, and more efficient; further, that no undue leniency has been shown by the examining boards is proved by the fact that the proportion of rejections has been increased, and at present averages about 23 per cent. of those examined; and that the result has been that the country generally, and the public services, are supplied with practitioners fully competent for the anxious, laborious, and responsible duties of their profession.

That perfect uniformity is, in the opinion of your petitioners, even if it were desirable, unattainable under any system that could be devised; but that there is great reason to fear that the proposed new system of conjoint boards, which in theory seems simple, expedient, and practicable, would be found in operation to be complex, cumbrous, and expensive, if not impracticable.

That even in England and Ireland, where circumstances seem more favourable for the establishment of conjoint boards than in Scotland, such is very likely to be found to be the case, but that in Scotland, from its peculiar local circumstances: as your petitioners believe could be proved on investigation, such will be found to be eminently the case; and in that country, if practicable at all, the conjoint system proposed in the Bill could only be carried out with enormous inconvenience and expense to all concerned, whether medical authorities, examiners, or students, and without adequate compensating advantage either to the profession or to the public.

That, even if it could be carried out, the uniformity of examination aimed at in this Bill would have a tendency to lead to uniformity of teaching, and thereby cramp the development of new views, and thus tend to produce a dead level, as teachers would be compelled to adhere to a system of teaching such as would fit their pupils for passing the examinations of the new boards.

That your petitioners would here call attention to this circumstance: that by the proposed Bill foreign and colonial degrees and diplomas are to be allowed a privilege which home degrees and diplomas are to be deprived of, and to be registered without the necessity of the holders of them having been obliged to pass as licentiates in medicine, surgery, and midwifery in this country, and that there is no guarantee that any equivalent reciprocal privileges are to be granted to British registered practitioners who may wish to settle abroad or in the colonies.

That your petitioners believe that it could be shown that every needful object of medical reform could be attained in ways more simple, more practicable, more economical, and more efficient, without it being necessary violently to dislocate existing interests, and to degrade the universities, and also the medical corporations, which, shorn of their status and of their powers, will henceforth be nothing better than mere clubs, holding out few inducements to medical men to become members of them.

That fresh medical legislation of the kind proposed in this Bill thus seems to be uncalled for at the present time; but that, under any circumstances, if there is to be a new Medical Bill, it should be preceded by a fair and full inquiry by a Select Committee of the House of Commons, so as by competent and reliable testimony to ascertain the real facts of the case, and thus obtain a sure basis for any legislative enactments which such investigation might show to be desirable.

ARMY, NAVY, AND INDIAN MEDICAL SERVICES.

The following are the questions which were set at the recent examination of candidates for her Majesty's Army, Navy, and Indian Medical Services:—

Anatomy and Physiology.—1. Describe the articulation and connexion of the ilium and ischium with the sacrum. 2. Give a full description of the nasal fossæ, enumerating the bones and cartilages forming their boundaries, and noting the sinuses and fossæ or other cavities with which they communicate. Describe also the different kinds of epithelium with which they are lined in different parts. 3. Describe the course, relations, and branches of the internal maxillary artery, and the dissection required to display them. 4. Describe the lumbar plexus, and enumerate in their order, from above downwards, the nerves arising from it, and their distribution. 5. Describe the phenomenon termed rigor mortis, and the condition of the muscles affected by it. Mention also the order in which different portions of the body are invaded by it, and the circumstances or conditions under which it is hastened, retarded, or apparently prevented altogether.

Surgery.—1. Describe the various steps in the lateral operation of cutting for stone, and the structures to be cut through. What are the dangers of this operation, and by what precautions are they to be avoided or overcome? 2. Describe the conditions which would probably occur in a case of neglected syphilitic iritis, from its commencement to its termination. What treatment should be adopted in a case which came under notice in good time? 3. Describe the characters, general and microscopic, of a myeloid tumour;

and at what period of life, and in what tissues, is it most frequently observed? 4. What are the various dislocations to which the elbow-joint is liable; and the most common complications attendant on these injuries? Describe the methods of reduction, and the subsequent treatment. 5. In a case of punctured wound of the right side of the chest, the result of some sharp-pointed instrument, and supposing the lung to have been wounded, but that the instrument had not passed right through the lung, what would be the probable symptoms and condition of the patient? Describe the treatment to be adopted in such a case. 6. What are the most common dislocations of the foot, *i.e.*, affecting and confined to the tarsal bones; and what the plan of treatment, and the dangers of non-reduction?

Medicine.—1. Analyse the symptoms recorded in the following case, so as to discuss fully the question of diagnosis. Sum up by stating what you consider to be the nature of the case, and the most probable cause to which the symptoms may be attributable:—"A man had been exposed to wet and cold, which produced a feverish attack with cough and difficulty of breathing. These symptoms were followed by dropsical swelling, so that he applied for hospital relief. After remaining under treatment for about two months, he began to improve, and he left the hospital, as he believed, quite relieved. He continued to enjoy tolerably good health, and continued to work at his trade (bricklayer) for eighteen months, when he was again attacked with cough and difficulty of breathing, accompanied by œdema (pitting on pressure) of the left side of the face, neck and chest, and left arm. The left external jugular vein, with its immediate branches, were engorged and prominent. In spite of the cough and dyspnœa, there were no stethoscopic signs to indicate any affection of the lungs. The heart was in its proper place; its pulsations were natural, and its sounds were also regular and natural. Above the heart, however, and extending upwards over the sternal region on the left side, there was considerable dulness on percussion; and, over that dull part of the sternal region, a systolic sawing murmur could be heard. There was no bulging, nor pulsation." 2. *a.* Define the following stethoscopic terms, and explain the pathological significance of each of them:—(1) "bronchial," "tubular," "amphoric," and "puerile" respiration; (2) "crepitant" and "mucous râles"; (3) "bronchophony" and "pectoriloquy." *b.* Describe fully the signs by which you recognise bronchitis extending into the minute bronchial tubes. 3. Name the common entozoa which affect the human subject, and the parts of the body in which they are found. Describe how and in what form they each find an entrance; also, how they are to be prevented from entering the body of man; and what are the appropriate methods or remedies for getting rid of them. 4. How would you ascertain the existence of pregnancy? How would you manage a case of foot-presentation? What are the chief diseases to be watched for in the first week after delivery? Describe their symptoms and give their treatment? 5. How would you treat the following diseases:—(1) Erysipelas of the head and face; (2) acute tonsillitis with great swelling; (3) diphtheria; (4) acute eczema of the face in children. 6. *a.* What are the usual doses of the following medicines:—(1) acidum arseniosum; (2) liquor arsenicalis; (3) acidum gallicum; (4) antimonium tartaratum—(*a*) as a diaphoretic, (*b*) as an emetic; (5) hydrargyri perchloridum; (6) digitalis folia—(*a*) powder, (*b*) tincture; (7) cannabis indica—(*a*) extract, (*b*) tincture; (8) colchici cormus—(*a*) the wine, (*b*) the extract; colchici semina,—the tincture; (9) tinctura ferri perchloridi? *b.* What are the medicinal uses of arsenic and of digitalis?

Natural History and Physics.—Zoology: 1. Describe the circulatory system and the course of the blood in a fish, a frog, and a mammal. 2. Mention the most important distinguishing characters of the cetacean skeleton. 3. Enumerate the orders of the class Reptilia, and give the distinguishing characters of each. 4. Describe the respiratory apparatus of the insecta. 5. Describe the changes which are undergone by a lepidopterous insect between the period of its escape from the egg and the attainment of its mature state. Botany: 6. What are stomata? Where do they chiefly occur? What is their supposed function? 7. Explain the following expressions:—"corolla gamopetalous"; "pericarp with loculicidal dehiscence"; "seeds exalbuminous." Adduce from the Pharmacopœia examples illustrating each of these characters. 8. What are the vascular flowerless plants? Why are they so called? Adduce an example from the Pharmacopœia. 9. Describe the inflorescence of Ficus. 10. Give the principal characters of the natural orders Euphorbiaceæ and Convolvulaceæ; and adduce from the Pharmacopœia an example of each. Physics: 11. What is the law of universal gravitation? 12. What is the centre of gravity of a body, and how would you proceed to find its position? 13. How does the boiling point of water differ according as it is noted at the foot or on the summit of a mountain? Explain the cause of the difference. 14. What is meant by electrical induction? 15. An electrical current is made to pass through a copper wire placed immediately above and parallel to a horizontally suspended magnetic needle: what is the effect of the current on the needle?

FROM ABROAD.

THE SEMEIOLOGICAL VALUE OF MYDRIASIS AND MYOSIS. At his ophthalmological clinic in Paris (*Gaz. des Hop.*, 1879, No. 18), M. De Wecker made the following observations:—

The functional changes of the iris, dilatation or contraction, may be of great consequence in the diagnosis of the diseases in which they are met with; and the exact analysis of their details is of importance in relation to the recognition of the causes that have produced them.

Mydriasis is a concomitant symptom of paralysis of the third pair of cranial nerves (the common motor ocular nerve). In these cases, however, it is not complete, for a still greater dilatation may be produced if atropia be dropped into the eye. Mydriasis, therefore, is not solely under the influence of the third pair, complete dilatation of the pupil being the result of paralysis of the common motor ocular, and of stimulation of the fibres of the great sympathetic, which is the dilator of the pupil. Mydriasis may therefore be of a paralytic or of a spasmodic origin. Mydriasis which results from *paralysis* is symptomatic of a *cerebral* lesion; while *spasmodic* mydriasis appears in affections in which *spinal* irritation plays the principal part. Besides these two quite distinct classes, it often happens that an irritation primarily cerebral may exert its maximum influence on the sympathetic system, while at the commencement of a meningitis there may be apoplectiform attacks. Traumatism, or a blow on the head, may produce both excitation and paralysis; or, in other words, the same and sole cause may induce at the same time paralysis of the common motor ocular, and excitation of the sympathetic. This variety has been produced a great number of times experimentally on animals. In children mydriasis is very often due to spinal excitation; and it is thus a frequent result of the irritation produced by intestinal worms, the inveterate practice of onanism, etc. For the same reason, it appears in the initial stage of hysteria and epileptiform attacks.

The treatment of mydriasis must evidently vary according to whether it is paralytic or spasmodic. All mydriases of *paralytic* origin are generally accompanied by a paralytic lesion of the ciliary muscle, while *spasmodic* mydriases ordinarily leave the muscle of accommodation intact. It will, therefore, most frequently suffice to investigate the *power of accommodation* in order to determine whether the probable cause of the mydriasis be paralytic or spasmodic. If a patient, the subject of mydriasis, presents no disturbance of accommodation, we may declare that the cause of the mydriasis is spinal; while, if the integrity of this be not preserved, the cause is cerebral. In this latter case the disturbances of accommodation are easily recognised. Thus, the subject of hypermetropia, not being able to accommodate the eye regularly, is unable to see distinctly, whether near or at a distance; in emmetropia there is no longer clear perception of near objects; and in myopia the faculty of reading is reduced to the vicinity of the *punctumremotum*. One or other of these conditions, according to the case, will, then, indicate a cerebral lesion as the cause of the mydriasis. Of course, all the subjects of mydriasis, whether paralytic or spasmodic, complain of the dazzling produced by light, dependent solely on the dilatation of the pupil; but this occurrence will not be confounded with disturbance in accommodation, properly so called. Mydriasis of *spinal* origin is a symptom of great value in prognosis, and often so in the diagnosis of these affections. Thus, it is anticipi-

patory symptom of locomotor ataxy; and in general paralysis it is also of great value. Still, it must not be forgotten that in these affections it is only transitory. We should abandon the modes of treatment formerly employed, the sole admissible indication seeming to be the dropping into the eye a solution of eserine or pilocarpin made into a collyrium with five centigrammes of distilled water. After using the collyrium we must observe how long the effect continues, as it is by the duration of its action in inducing contraction of the pupil that we should be guided—the interval of each instillation being rendered more and more long according to this duration. If, however, no change is observed, it is useless to tease the patient with an application which is scarcely palliative. Advantage may be derived also from the continuous electric current.

Myosis presents itself in two forms entirely analogous to those of mydriasis—a spasmodic form, determining the contraction of the sphincter by the excitation of the third pair; and a paralytic form, dependent on the sympathetic. The same effects on the accommodatory apparatus are also observed, the paralysis of the fibres of the sympathetic not influencing the muscle of accommodation, while the spasmodic irritation of the common ocular motor nerve gives rise to disturbance of accommodation. Spasmodic myosis is symptomatic of cerebral irritation, and the paralytic form depends on spinal affections. Paralytic myosis is especially of great value. A patient who as yet has presented no manifest sign of locomotor ataxy is the subject of very marked myosis. If this be due to ataxy, a remarkable fact is observable. He is still able to contract the pupil a little more than it is already. The iris, however, does not contract when the eye is submitted to an oblique light; but such contraction takes place when the patient, while looking at distant objects, is desired to regard near ones—that is, when we have caused him to put his accommodatory power into activity. Paralytic myosis may also arise from compression of the sympathetic by a gland, a goitre, or a tumour, and in this case it may be unilateral, ceasing when the compression disappears. It is obviously of importance to be able to make an exact diagnosis of the form. Unfortunately, with regard to treatment, there is not much to be hoped for, atropia having a very temporary action. The examination of the patient is especially useful in this sense, that it enables us to foresee an affection which is not as yet recognisable by the other clinical signs that are ordinarily pathognomonic, so that by the adoption of appropriate treatment its evolution may be somewhat retarded.

The Marine Hospital at Venice.

Professor Wilmart, of Brussels, furnishes in the *Presse Méd. Belge* (March 30), an account of this institution, with the working of which he is familiar. The Ospizio Marino Veneto was erected in 1870, on the shore of the Adriatic, far away from all habitations, surrounded by dense clumps of trees of all kinds, and consists entirely of wood. It has but a slight elevation, the whole being built on the ground-floor, the sandy site being cheap enough to admit of extension, while the inconvenience of staircases is avoided. It is rectangular in form, its long side facing the sea, a broad corridor extending between its two small sides, allowing of ventilation being graduated at will. The sudden changes of temperature, frequent at the seaside, are not felt here, or very slightly so, owing to the disposition of the walls of the building. These are all double—that is, formed of two partitions, exactly parallel, leaving a considerable interspace, within which the imprisoned air forms a bad conductor of heat. Taking the thermometer as a guide and the ventilation as a means, the temperature may be kept at a constant level. The object of the hospital is the treatment of scrofulous children, brought from any part of Italy, by sea-water baths, but as it has no revenue, every child must make a payment, which, however, is a very small one. The institution is only in operation during the bathing season. When Professor Wilmart visited the hospital there were from 200 to 300 patients, all presenting some of the manifestations of scrofula. It is under the direction of Dr. Levi, assisted by three other physicians. On admission each child is weighed, measured, and minutely described. The size of its glandular tumours is estimated, and its ulcers drawn; and its future progress is carefully chronicled. The employment of the baths constitutes the sole treatment, all other therapeutical agents being consigned to other parts of the year. The children take the first bath at 7 a.m., and then receive a ration of bread and milk. At 10 a.m. they have a frugal repast of bread and cheese. At 12 they dine with broth, vegetables, and boiled meat. At 2 p.m. they have bread and egg, and at 4 p.m. they take a second bath, followed by bread and roast meat. In the intervals they play on the warm sands. The physicians administer no medicine, but only attend to complications and intercurrent diseases. Speaking from a two months' visiting this hospital, Professor Wilmart states that the method pursued is attended with the most brilliant results, especially in Pott's disease.

GENERAL CORRESPONDENCE.

INDIARUBBER TRACHEOTOMY-TUBES.

Letter from Mr. Morrant Baker.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have heard from two distinct sources during the past week that elastic tracheotomy-tubes are being manufactured without a canvas lining between the layers of rubber, and with so weak a connexion between the tube and its collar that these can be pulled asunder on making the slighest traction. A tube of this kind was, indeed, placed in my hands by a friend on Friday last.

If the question were one merely of good or bad manufacture, I should not, of course, have troubled you with any communication on the subject; but as the employment of these ill-made tubes would be always dangerous, and might be followed, if a tube broke while in use, by serious consequences, it seems my duty to ask you kindly to insert this note of warning.

The advisability of testing the strength and elasticity of the tubes may not occur to one using them for the first time.

I am, &c., W. Morrant Baker.

26, Wimpole-street, W., April 29.

A PATENT GRIEVANCE.

Letter from Mr. Francis Scott.

[To the Editor of the Medical Times and Gazette.]

Sir,—When visiting a patient a few days ago I was addressed by his wife thus:—

"Oh, Mr. Scott, I am taking bromide of potassium, fifteen grains at bedtime. The other day we were travelling from London, and in the carriage was a gentleman who told us that he was attached to the Privy Council Office (*sic*), and going to Warminster to make inquiries as to the prevalence there of small-pox. And he said to me, after prescribing for some fellow-travellers: 'You ought to take bromide of potassium. Let me see, how old are you? Ah, yes (on my telling him)—well, fifteen grains is not a large dose, but it is enough for you at your age. Put two drachms into an eight-ounce bottle and take a tablespoonful at bedtime.'"

I, sir, did not question my patient's wife too closely as to how she got into conversation with this gentleman, or was led so to describe her condition that he should declare that she "ought to take bromide of potassium." I gathered, however, that the prescriber, whoever he was, did not write any one of the prescriptions he seems to have bestowed so freely. In the present instance the memory seems to have served well enough, or, at any rate, to have led into no grave error. But who can say the same of the others? Surely, sir, if the Government Inspectors are generous enough to look after, in their spare moments, individual as well as public health, they should at least take care to *write* their prescriptions. But I would also fain ask (always supposing this gentleman to be such as he represented himself) whether in future he would not do well to apply himself to his special duties, and not deprive, by means of his gratuitous advice, his poorer or humbler brother doctors of any of their hardly-earned fees. Of the correctness of the above story there is no room for doubt.

I am, &c.,

Bridport, April 23. Francis Scott.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 22.

JOHN ERICHSEN, F.R.S., President, in the Chair.

ADJOURNED DISCUSSION ON CROUP AND DIPHTHERIA.

DR. GEORGE JOHNSON said that he had long taken more than ordinary interest in the question of the relation between membranous croup and diphtheria. For many years he believed that a false membrane in the larynx was the usual result of inflammatory croup. His belief in this theory received a rude shock when he met with two cases of fatal inflammatory croup in which no false membrane was found after death. This led to further inquiry. Mr. Ryland and Sir Thomas Watson mention the occasional absence of false membrane. A study of the volume of Memoirs on Diphtheria, translated by Dr. Semple for the New Sydenham Society, threw a new light on the subject. The French pathologists define true croup to be a disease attended by false membrane in the air-passages resulting from the specific disease diphtheria, and they distinguish this from simple inflammatory croup unattended by false membrane. Home, in his treatise on Croup published in 1765, and Cheyne, in his work published in 1809, have confounded under the term "croup" catarrhal laryngitis and diphtheria. Subsequent English writers have done the same. In 1870 he first directed attention to this subject in a paper in the *British Medical Journal*. At that time he was unaware that the late Dr. Hillier had expressed the same view in the *Medical Times and Gazette* in 1862. About four years ago he and Sir William Jenner had simultaneously published papers in the *Lancet* which had given rise to much controversy. We have now to thank the Committee of the Society for an able and valuable report—valuable rather for questions raised, than for a final and positive decision of them. It was easier for an individual than for a, perhaps not unanimous, committee to pronounce positive opinions. Mr. Holmes, quoting a passage at page 33 of the report as follows—"Croup may be membranous or not membranous, due to diphtheria or not,"—interpreted this as meaning that there was a membranous croup not diphtheritic; but he (Dr. Johnson) thought that in this statement there was no mention of a membranous non-diphtheritic croup. The main question was this—*Is membranous croup a form of diphtheria?* It was well known that simple catarrhal inflammation of the air-passages, no matter how intense, never resulted in the formation of false membrane. Simple bronchitis was entirely distinct from the so-called "plastic bronchitis," which was, in fact, not an inflammation. Then the diphtheritic poison had a tendency to attack inflamed or abraded mucous and cutaneous surfaces. Leech-bites and blisters on the skin, the fauces and air-passages inflamed by scarlet fever, measles, or typhoid, may become diphtheritic. A scarlet fever patient with a diphtheritic throat had two distinct infectious diseases. Two brothers had scarlet fever simultaneously in two different houses; in one the fever was complicated with diphtheria. When convalescent the two boys occupied the same room, and the result was the communication of fatal diphtheria to the one who had before been free from that complication. An infant was operated on for phimosis; the wound inflamed, and was covered by a diphtheritic membrane. He was taken to another house, and soon recovered; at the same time two or three servants in the house had sore throats, and one had diphtheria. Defective drainage was discovered, and corrected. If the boy had been exposed to cold and got catarrhal laryngitis, this might have resulted in membranous croup, excited by the diphtheritic infection. The Committee quote cases in which a false membrane followed mechanical or chemical injury of the throat. In each of these cases there may have been also infection by a septic agent. The lady in whom false membranes followed the introduction of eau de Cologne into her throat while she was fainting at stool (page 95 of report) might at the very time have been suffering from the infection of diphtheria. Solid nitrate of silver produces a good imitation of a false membrane, but this never spreads from the fauces to the air-passages, as in Dr. Fagge's cases, in which a hot potato, or hot-water, or a cut throat, had been followed by a far-reaching membranous exudation into the trachea and bronchi. The Committee state that in the purely laryngeal cases there is less evidence of infection, less frequent albuminuria, less glandular swelling, and less general depression, than in cases of faucial diphtheria. This might be expected from what we know of the disease. The false membrane being the medium of infection, the more extensive it is, the greater is the risk of infection by expulsion of the discharges, more especially from the fauces, whence they are more easily detected than from the interior of the larynx. Then, the greater the extent of exudation the greater will be the absorption of the poison by the lymphatics, with resulting glandular swelling, blood contamination, albuminuria, and constitutional disturbance. He quoted a statement of Dr. Wilks (page 51), showing the close relation between the purely laryngeal and the undoubted diphtheritic cases, and a case of Dr. Dickinson (page 128), in which a child with membranous croup and follicular spots on the tonsils gave unquestionable diphtheria to the nurse. The first two cases which he (Dr. Johnson) saw, occurred in two sisters, one of whom had membrane on the tonsils, which went no farther; the other had fatal laryngeal diphtheria, with no visible membrane above. In examining catarrhal throats with the laryngoscope, he had often seen the palate and fauces healthy, while the lower pharynx and larynx were much congested; in such cases the diphtheritic infection with the resulting exudation would be likely to have a similar limitation. In nearly every case membranous laryngitis may be traced either to direct contagion or to insanitary surroundings, but the cause must be diligently sought for. Some cases were given in illustration. In one an untrapped waste-pipe of a bath, in another an untrapped sink-pipe, in another an unsuspected cesspool beneath a drawing-room floor, were the causes of the disease. The poison of diphtheria was probably less specific than that of typhoid fever, and might be generated *de novo* in a cesspool. On one occasion several cases followed the opening of a cesspool a few yards from a house towards which the wind blew. The Committee admit (page 32) "that in a very large proportion of cases of membranous laryngitis an infective or zymotic influence may be traced." He would go farther, and maintain that in every case such an influence had been at work. If this were a fact, it was of the highest importance with reference to the selection of both remedial and preventive measures.

MR. HUTCHINSON said: In bearing testimony to the value of one of the ablest clinical documents which I have ever read, I must be permitted to express regret that the subject was submitted to the Committee in such a limited form. The question whether the words "croup" and "diphtheria" are to be held to mean the same thing is too much a matter merely of definition, and it would, I cannot but think, have been better worth the work of this highly skilled Committee if we had obtained the result of its investigation as to the real pathology of diphtheritic inflammations generally. It is indeed impossible to answer the minor question without first considering the major, and hence I think that the Committee has acted very wisely in declining to give any categorical reply, and contenting itself with simply a judicial summary of the facts. It is impossible to decide as to the relationships of "diphtheria" and "croup" until we know better what we mean by "diphtheria." Amongst the subjects which I specially miss from the report is that of the well-known diphtheritic inflammations of the conjunctiva. The facts respecting these would, I think, throw important light on the parallel affections of the pharynx, and would lend confirmation to several of the conclusions of the Committee. Let me very briefly state them. Pellicular conjunctivitis is much less frequent and less severe in England than on the Continent, just as pharyngeal diphtheria is. With us it never spreads as an epidemic, either in hospitals or out of them; but abroad it not unfrequently does so, and is the cause of the loss of many eyes, and occasionally, I believe, of life. The cases which I have seen have varied very widely in severity—sometimes only a few films of pellicle, at others a complete coherent cast of the whole conjunctival surface. In severe cases the surface bleeds if the membrane be detached. I have seen it in healthy children, and I have never seen it in connexion with croup or pharyngeal diphtheria; but abroad, I believe, it is often seen with them.

In one remarkable fact it resembles the latter affection—it is predisposed to by scarlet fever. The worst case I ever saw —one in which both eyes were lost, and every part coated by coherent membrane—was in a child very ill after scarlet fever. In another case I was asked to see an infant with "purulent ophthalmia," and was told that its mother had just died of scarlet fever. I replied, "Then the inflammation in the infant will be pellicular, and not purulent,"—and so it proved. I should also much like to know the opinion of the Committee as to the relationship between epidemics of contagious sore throat and true diphtheria. Most present will be conversant with epidemics of sore throat spreading from house to house, very severe for a time, but without any mortality. Are these minimised forms of diphtheria? May I be permitted to state a fragment of experience which came under my own notice. About two years ago, in a little village with which I am well acquainted, several deaths occurred, and were registered as diphtheria. The sanitary authorities met, and considerable alarm was felt. No more deaths, however, occurred, but during the next six months severe sore throats occurred in house after house of the surrounding districts. They occurred in farmhouses which were widely separated and under excellent hygienic conditions, and almost invariably several members in the same house suffered. I had the opportunity of examining six in one family. There were small white patches on the tonsils; great debility was present, and two children were dangerously ill. In several convalescence was slow. I could not assert that paralysis followed in any, but in one case it was certainly threatened. A member of my own family, who visited the invalids at the house referred to, caught the sore throat, had sudden fever, great pain, and symmetrical white patches on the tonsils, but was well again in four or five days. A medical friend, who saw these cases with me, told me that in a small country town, about twenty miles distant, exactly the same epidemic prevailed, and that the medical men of the district were divided in opinion: some insisting that it was "diphtheria," and others denying it that name because none of the cases died and none had extensive membranous formation. I was told that in this instance several cases of paralysis of accommodation had been witnessed. I suspect that I am relating facts the parallels of which are familiar to all. My wish is to elicit an expression of opinion as to their meaning. It is the disease referred to at page 31 of the report as "common membranous or fibrinous angina." Next to it comes what is known as "hospital sore throat"; and I confess to my own inability, excepting by estimate of degree of severity, to separate either from "diphtheria." Yet it is manifestly most arbitrary to admit degree of severity as part of a definition of a disease. It is obvious that the question submitted by the Society to its Committee was in part one of fact, and in part one of definition; and I have read with much interest the remarks made in the report as to the meaning in which the term "diphtheria" should be used. The difficulty of limiting it has evidently been strongly felt, and a laudable caution has been exercised. Sir John Cormack, in some very able papers on this subject written some years ago, wishing to emphasise his opinion as to the nature of the relationship between the two maladies, adopted as the title for one—"Diphtheria a disease: croup a symptom." This expression, I believe, conveys the present opinion of the majority of investigators. Yet, if I may, with great deference to our Committee and to this meeting, venture on a criticism, I would say that such an expression still needs emendation, and that, in truth, both are but symptoms. In many parts of the report I find such expressions as "the diphtheria poison," "a zymotic disease," and the like, and I feel bound to suggest that these are, in the present condition of our knowledge, scarcely warranted. Many are desirous to get rid of the word "croup" altogether, and I would venture to say that I think it would help very much towards clear views if we could be quit of "diphtheria" also; for I feel convinced that we employ that term with far too definite and restricted meaning. We apply it as if to a "fever," and in so doing we raise it to a dignity to which it has no right. My conviction is (again I hope I speak with great deference to the opinions of the many who will differ from me) that diphtheria is neither a specific fever nor zymotic, but simply a name which got attached to the more conspicuous result of a specialised type of contagious inflammation. It is not a contagious fever which produces a sore throat, but a contagious sore throat which produces a fever. It is not to be wondered at that the other opinion, erroneous as I hold it to be, has insensibly come into vogue, for the *primâ facie* facts are very misleading. An epidemic of "diphtheria" is remarkably like an epidemic of a specific fever. The disease clearly spreads by contagion or infection, it is attended by severe constitutional disturbance, by very peculiar local products, and by remarkable concomitants and sequelæ. But we must be careful in our inferences from these facts; and, in spite of the contagiousness, the membranes, the albuminuria, and the paralysis, I still contend that there is good reason for believing that diphtheria is not a specific fever. By the latter term we denote a form of illness which necessarily depends for its origin upon a specific poison, and which therefore cannot possibly begin spontaneously; which observes stages, and especially has a stage of incubation, during which the poison breeds in the blood preparatory to producing local symptoms. As to duration and severity, a specific fever can vary only within certain limits. To take *seriatim* the facts which are supposed to imply specificity in diphtheria, we have first its contagiousness. But many forms of local inflammation are contagious, a special example being erysipelas, which, like diphtheria, may originate spontaneously, and yet may become virulently contagious. Next, the production of membranes; but again, everyone admits that there are membranous inflammations—as after wounds, scalds, etc.—which are not specific fevers, and surely there is nothing in this special kind of inflammatory product which can prove such a point. The occurrence of albuminuria undoubtedly suggests the conclusion that the disease which it attends is cognate with scarlet fever; but certainly we must admit that albumen in the urine may be present under a great variety of conditions. I have known it occur within six hours of a severe burn, and it is frequent in burns, and also during erysipelas. It cannot for a moment be held to be conclusive as to the presence of a specific fever. I was much interested in hearing Dr. Johnson, in the able address which he has just concluded, state his belief that the albuminuria was in most cases proportionate to the severity of the sore throat. Lastly, we have the very curious sequel of paralysis. Respecting this, I allege that we as yet know too little of its real meaning to allow it to weigh as evidence on either side. It is very rare, and yet when it occurs it is very definite. It is never in proportion to the previous severity of the disease, and it rarely begins until the patient is convalescent. We do not yet know for certain what part of the nervous system is attacked, nor what the exact nature of the local change is. It is almost as easy to suppose a local inflammation inducing such a symptom as a specific fever. I will delay for a moment my main argument in order to mention some curious facts which have come under my notice in reference to paralysis after diphtheria. I have seen and published many cases in which the eye alone was affected, and this is probably by far its most frequent form. Such cases generally find their way to specialists, in the belief that the sight is failing. I have repeatedly seen cases of this ciliary paralysis in which it was stoutly denied that any diphtheria had occurred, and all that was admitted was a few days' sore throat. In reference to the identity of common contagious sore throat and diphtheria, the following fact is of interest. A little girl was brought to me from near Finchley, apparently in excellent health, but believed to be going blind. I found that suitable glasses wholly restored her sight, and that she had nothing but cycloplegia. Inquiring as to diphtheria, I was told that the girl, her sister, and a servant-maid had all had sore throats, and that sore throats had been prevalent, but the surgeon in attendance had denied that it was diphtheria, and had called in a physician to decide that special point, who had quite agreed with him in the opinion. In another instance a gentleman came to me with cycloplegia in one eye only. I asked as to diphtheria, and he said he had not had it, but added that he had just been nursing his child through a bad attack. I pressed him as to whether he had not had some degree of sore throat, and he admitted that one day he had thought that his throat was going to be sore. It had, however, passed off, and no treatment had been needed. Amongst the arguments against the hypothesis that diphtheria is a specific fever, and the throat complication only a symptom of it, are—that the severity of the fever or depression is usually in some ratio with the extent of the pharyngitis, that it has no period of incubation, but that sore throat is the first symptom observed. Of course

there is a period of development—usually a short one—during which the inflammation is establishing itself, and, at the earliest part of this, shivering and malaise may occur; but there is no period of incubation, properly so called, during which the patient is definitely ill, but has no local symptoms. In this, the advent of the malady resembles that of erysipelas. Next, I assert, as a strong argument against specificity, the remarkable variability of the disease. Excepting by the childishly easy method of excluding all but severe cases, no one can define diphtheria, or mark its boundaries from other cognate affections. Not only in isolated cases, but in whole epidemics, it may be either a severe and fatal malady, or is one of but little importance. If the old "croup with membranes" is, according to the judgment of some of the best authorities and of many of the Committee, to rank as diphtheria, then the latter is capable of spontaneous origin. Is it possible to believe that a malady which may arise spontaneously, may be catarrhal, may be caused by wounds, may follow scarlet fever, or be induced by emanations from drains, is yet itself a specific fever? Such multiplicity of possible causation is inconsistent with the idea of specificity, and supports the theory of local inflammation of peculiar but not specific type. I am glad to be able to count Trousseau as giving valuable support to this latter opinion, although he does not, I think, enunciate it. He says that he thinks the sore throat may be cut short by treatment, and the constitutional symptoms averted. Sir William Jenner dissents from this statement, but he, too, admits, in his able lectures, that the sore throat causes "septicæmia," and may thus bring about death. Some very interesting, and by no means irrelevant, evidence is afforded by what we observe in diphtheria of wounds. The first pellicular wound that I ever saw happened to a young gentleman, the son of a surgeon, in the country, who had a compound fracture of his leg. We used to peel off from the wound repeatedly thick pellicles of adherent membrane. Now, this youth had gone through a sharp attack of pharyngeal diphtheria during an epidemic six months before, and he was carried into a house where also diphtheria had recently prevailed. Since that I have seen many pellicular wounds in hospital practice, and chiefly in connexion with an epidemic of hospital gangrene which occurred ten or twelve years ago. The facts which I have observed would lead me to agree with Virchow in the opinion that there is a relationship between hospital phagedæna and diphtheria. They are both local inflammations of peculiar type, and can both become contagious. The facts as to diphtheria of wounds, like those as to conjunctival diphtheria, are wholly inconsistent with any other hypothesis than that it is a local disease. In conclusion, Mr. President, allow me to urge that this hypothesis very fairly covers and explains all the facts. Under it there is nothing puzzling in the circumstance that the disease originates from a variety of causes, and is of extremely variable severity. The true relations of sporadic croup, epidemic diphtheria, common contagious sore-throat, hospital sore-throat, conjunctival diphtheria, and pellicular wounds, are seen at a glance: they are all modifications of the same type of inflammatory action, developing their differences in reference to the part attacked, the proclivities of the patient as to race, family, or personal idiosyncrasy, or from the acquired severity of the epidemic. So far as I can see, if we persist in retaining the dogma of a specific fever, all our facts are in confusion; if we put it aside, all is clear.

Dr. Squire: The facts supplied by Mr. Hutchinson are of the highest interest and value. It is strange to hear the existence of diphtheria as a specific general disease called in question. None of the reasons for considering it to be a local disease seem to me sound. A febrile stage precedes the exudation in most cases. Infection must have been received by some other channel before the pellicle appeared on the sore in the foot in the case mentioned. It is a mistake to look upon the false membrane as a cause instead of a consequence of the disease; it is effete material, and can only be indirectly the carrier of infection. My attention was drawn to the great difference of the disease diphtheria, with croup as an accident of it, from croup as it was then understood in England, while following the clinique of Trousseau at the Hôpital des Enfants Malades. Ever since I have tried to harmonise my French and English experience. At first, one had to show the frequent presence of diphtheria in cases of croup; now it seems more necessary to maintain that there is a febrile croup very fatal to children which is not diphtheria. I have been at some pains to point out clinically how easily the symptoms of croup may mask those of diphtheria, and have sought to show by statistics how largely diphtheria is concerned in our most fatal cases of croup. In 1861 the prevalence of diphtheria in London doubled the mortality returns for croup: the numbers were 471 for 1860, and 848 for 1861; or, adding the returns for the last quarter of 1860, when the epidemic began, to those for 1861, and comparing that number with the returns for the previous five quarters, we have 461 against 1017 deaths from croup. It is not difficult to see that at least half of those deaths were from diphtheria. There can be no doubt that such cases were, and still are, included under croup, though the close connexion of diphtheria with croup as the most frequent cause of the most fatal cases receives general assent. Indeed, the tendency of diphtheria to affect the larynx and trachea is so well known, that we always provide against the possibility of croup as a result; so also in any severe case of croup we have to consider the possibility of diphtheria as a cause. The question, then, before the Society seems to be—Is there a form of croup independent of diphtheria? It is not a question of the identity of croup and diphtheria; that in one form is admitted. On the Continent, croup is taken to mean nothing else than diphtheria; there is no basis of difference, clinical or pathological, between croupal and diphtheritic products as those names are understood abroad. In France, "false croup" means exactly "spurious diphtheria"; those who would give up the true sense of our English word, and renounce all ideas of croup except as a form of diphtheria, may see in this a full admission that croup with us is not diphtheria, but something quite distinct. This may be called "stridulous laryngitis," but it is a croup in which patches of lymph and shreds of false membrane result, these may either be expectorated or collect into a fatal obstruction, and this independent of diphtheria. Admitting this question to be answered in the affirmative, a second arises—On what does the difference between the two diseases depend? Not certainly upon the pathological products alone, not entirely on pathological anatomy, but on the whole clinical history and pathological sequence observed. Severe cases of croup suddenly occur entirely unconnected with others, and on recovery do not give rise to others, are attended with very little glandular enlargement, and have no paralytic sequelæ. On the other hand, we meet with cases of slight sore throat with enlarged cervical glands, preceded by fever and followed by paralysis, where a connexion is found with more marked cases of diphtheria. The practical point is, need we or need we not isolate the patient? We often find infectious sore throat in schools, where the defective sight described by Mr. Hutchinson shows the presence of diphtheria, but cases of croup in that connexion are rare. I saw one such case in consultation with the President, which I considered to be diphtheria, and enjoined isolation; if we are only in doubt, isolation is proper. But are we, in another case, where the fullest inquiry has excluded the idea of diphtheria, to commence precautions when some false membrane is expelled, which, if relief had occurred at an earlier stage, would have been thought to be unnecessary? So little can the mere accident of false membrane decide the point, that I have seen layer upon layer of false membrane moulded on a child's tonsil, only one being affected, where the general conditions convinced me that separation was unnecessary, and that iron was not required in the treatment. The presence of false membrane is neither peculiar to diphtheria, nor essential to it; some cases of diphtheria, even cases of croup from diphtheria, may occur without false membrane. The report shows that all cases of membranous croup do not result only from diphtheria. The diagnostic significance given to the presence of false membrane cannot be maintained. For some time I thought a real difference was to be found in the state of the mucous membrane itself; but no absolute difference can be founded on the integrity of the mucous surface: when the epithelium is destroyed or removed, the exudation becomes fibrinous, deep-seated congestion liberates corpuscles readily reduced to fibrine on the surface, while the tissue choked with cells undergoes an interstitial necrosis. Just as membranous shreds occur in the products of acute bronchitis in children, so does ulceration of the mucous membrane in the athrepsia of children, or after many diseases other than diphtheria. After measles, besides ulcerative stomatitis, we often see patches of exudation which no one can

call diphtheria. The great majority of cases of croup secondary to measles are not diphtheria; we find one child in a family with measles attacked in this way, and none of the others, though they are then most susceptible of any new infection. Will anyone urging the new pathology be logical enough to say that such cases need to be isolated, even when false membrane is apparent? The four cases of mine mentioned in the report were all cases of secondary croup; only one of them could be supposed to be diphtheria. Fibrinous exudation is often seen in the throat where there is no diphtheria—this was pointed out by Bretonneau,—yet such cases are adduced as instances of diphtheria recurring five or six times in the same individual, just as croup is sometimes said to do. In this way we get confused notions of what diphtheria really is. The only part of the report to which I should take exception is that on the anomalous character of diphtheria as an acute specific disease. It breeds true enough; it is likened to typhoid, and typhoid does not often recur. To me the analogy is closely to scarlet fever; all the precautions necessary against the one should be used against the other. That part of the report referring to influence of season deals with numbers too small to be of value. It is ascertained by observations of large numbers over a series of years, both by Mr. Buchan and Dr. Mitchell for London, and by M. Besnier in Paris, that diphtheria always increases as an epidemic in the early winter. Diphtheria is much more prevalent in France and Germany than with us. Paris, with less than half the population of London, has more than double the number of deaths from this cause: this reached 2393 in 1877, and was 1995 last year; a week or two ago there were eight deaths in London, and fifty-five in Paris, from diphtheria. The returns from many towns in Germany, with a population about equal to that of our own large towns, showed 211 deaths from this cause in the last week of December, and 178 in the second week in January, while at the same time the numbers for English towns were 29 and 20. In American towns of about half the population, during the third week of January there were 151 deaths from diphtheria and 49 from croup; these numbers were 85 and 50 for the first week in March. Diphtheria corresponds with enteric and scarlet fevers as to the time of the year at which it is most prevalent; while croup, like whooping-cough, is always more severe in the spring. It is not cold, but sudden chill and change, that predisposes to the latter, as also to pneumonia and diarrhœa. Croup and infantile laryngitis, which Dr. Sansom's observations, as well as my own, show always to accompany it, do not follow the law of diseases of the respiratory organs, but have a periodicity of their own allying them with the zymotic, and not with local, diseases. Whatever the zymotic influence may be, it is distinct from measles and whooping-cough, and also, I contend, from diphtheria. Its relations are rather with influenza, diarrhœa, and cholera—diseases that may recur and have a short or indefinite incubation period. I would not insist on croup as a disease having a distinct entity any more than diarrhœa has, but I do insist on the importance of giving both a place among zymotic diseases.

Dr. SEMPLE recalled the attention of the Fellows to the fact that the report now circulated owed its existence to a paper read by himself, at a meeting of the Society held in November, 1875. On that occasion he expressed an opinion, and supported it by facts and arguments, that membranous croup and laryngo-tracheal diphtheria were one and the same disease. The conclusions he drew were not opposed; but the subject appeared to the Fellows to be so important that a committee was voted for, and subsequently appointed, with a view to consider the question as to the identity or non-identity of the two above-named affections; and the result, after three years' deliberation, was now before the profession. He thought he was justified in referring to the circumstances under which he formed the opinions he now maintained. In the year 1858 he was appointed by the Committee of the New Sydenham Society to edit and translate a series of memoirs on diphtheria by Bretonneau, Trousseau, Bouchut, Guersant, Empis, and Daviot, and he became, of course, acquainted with the French views entertained on the subject. It so happened that, at the very time he was so engaged, a very severe and memorable epidemic of diphtheria broke out in this country; and he had an opportunity of witnessing the course and termination of the disease, at Bagshot, in Surrey. He performed the post-mortem examinations himself, and brought the specimens so obtained to the very table before which he was now standing—Dr. (now Sir Thomas) Watson presiding on the occasion as President of the Pathological Society. He was struck by the exact resemblance presented by the cases, both in their clinical features and their post-mortem appearances, to those recorded so accurately by Bretonneau and his then pupils, Velpeau and Trousseau, as having occurred in and about the town of Tours, in France. After the great English epidemic at the period referred to, there was a lull in the virulence and extension of the disease in England, and he for some time saw very little of it; but a few years afterwards—namely, in the year 1865—as chance would have it, a case occurred in the practice of a dispensary to which he was attached as physician, presenting in its course and termination and post-mortem appearances the very same features as those he had observed before at Bagshot, although the case was a sporadic one and no infection or extension of the disease could be traced. This case he had also himself examined after death, and had presented the specimen so obtained to the Pathological Society. But on reflecting on this case, and comparing it with the descriptions found in the existing text-books, he became convinced that much error and confusion existed on the subject of so-called croup, and at the meeting of the Society in question he expressed his opinion that "diphtheria of the trachea was essentially the same as croup, the latter disease being, in fact, a variety of the former." He also then stated that the word "croup" in the systematic books really comprised, or rather confounded together, three separate diseases—namely, tracheal or laryngo-tracheal diphtheria, infantile laryngitis, and laryngismus stridulus. The first is characterised by the presence of a false membrane in the air-passages, and is most properly, as he conceived, denominated "diphtheria," the Greek word *diphthera* exactly representing to the mind the idea intended to be conveyed; the second is a simple inflammation of the air passages, in which there is no false membrane, although there is often considerable danger; in the third there is no false membrane, there is no inflammation, and the malady consists only in a spasmodic affection of the recurrent laryngeal nerve. Yet all these different diseases are confounded together in the text-books, as anyone may see by consulting those works, and he particularly referred to the Cyclopædia of the great medical lexicographer, the late Dr. Copland, who, in the article "Croup," distinctly confounds all these three maladies together. The opinions offered by himself (Dr. Semple) in 1865 were undoubtedly opposed, but they had since been adopted and expressed by Dr. George Johnson, Sir Thomas Watson, Sir John Rose Cormack, Sir William Jenner, Dr. Bristowe, and Dr. Morell Mackenzie. In making this statement he did not intend in the slightest degree to assert or to insinuate that any of those distinguished men had derived their views from anything he had done, spoken, or written; but he begged to state, with the same emphasis and distinctness, that he had not borrowed his opinions from them, but had pursued his investigations, whether clinically or historically, in an independent manner, having for his sole object the discovery of the truth. He had made all his post-mortem examinations himself, and he had recorded no case which had ended fatally without having done so. He had been represented as stating that croup and diphtheria were the same disease, but he had never been guilty of any such absurdity, for he was of course well aware that diphtheria, besides appearing in the throat, might attack the eyes, the nose, the ears, the anus, the glans penis, the vagina, and the skin; while croup, however vaguely the word was used, was applied only to some malady of the throat. What he maintained in 1865 he asserted still more strongly now—namely, that laryngo-tracheal diphtheria was the same disease as membranous croup. The disease commonly and popularly called "croup" was infantile laryngitis, of which he had seen multitudes of cases, especially among the children of the poor; but although in all his cases of death from this disease he had made post-mortem examinations, he had never found any false membrane, although there might be frothy mucus or pus. He then proceeded to make some observations on the appointment of the Committee for investigating the subject, and explained the course they had adopted in drawing up their report. He found himself associated in the task with a number of distinguished men whose abilities were unquestionable, and whose self-sacrificing and indefatigable industry

was beyond all praise. In now stating his opinions he did not presume to speak for his colleagues, but only for himself, although the impression made on his own mind was that the opinions he had expressed in 1865 were fully borne out by the results of the investigation. In drawing up their conclusions, it might well be conceived that the same facts might strike different minds in various lights, and hence of course it was often necessary, during the sittings of the Committee, that mutual concessions should be made with a view to the arrival at a unanimous vote, which termination was happily achieved. In obtaining information, the Committee in the first instance sent out about a thousand circular letters to medical men, not only in Great Britain, but, in fact, in all available regions of the civilised world, and the answers they received were comparatively very few. Those who did answer, undoubtedly, for the most part, expressed their opinion that "croup" and "diphtheria" were different diseases, but when the answers were analysed, it was found that in hardly any case were facts adduced or arguments used, although in a very few instances, as in that of Dr. Wilks, the writers had carefully considered the questions and had given categorical answers. It was evident, as may be seen by reference to the report itself, that those to whom the questions were addressed had for the most part considered croup as synonymous with infantile laryngitis, whereas the nature of the inquiry was to investigate the relations between "membranous" croup and diphtheria. Hence a great number of the answers were irrelevant and unsatisfactory, distinctions being drawn, which, although correct, did not discriminate between membranous croup and diphtheria, but between the latter and infantile laryngitis, the diagnosis of which admits of no doubt. Thus, some of the answers stated that croup prevailed in the winter and diphtheria in the summer; that the former was confined to the throat, and the latter to the fauces; that the one occurred in dry weather, the other in damp weather; and many of the other answers were equally untenable or irrelevant. It was impossible, therefore, from these materials to draw up such a scientific report as would meet the object for which the Committee were appointed, and they were therefore compelled to pursue the inquiry in a rather more limited but more accurate manner, and to request returns from large hospitals, and especially children's hospitals, where all the cases were carefully examined, and notes taken, and post-mortem examinations regularly made. The valuable materials thus obtained are to be found in the latter pages of the report, and, although they constitute very dry reading, they are of the highest scientific importance, and they prove beyond all doubt that in the great majority of cases the presence of a false membrane in the throat is due to a zymotic element, while in the numerous cases of infantile laryngitis there is no false membrane at all. In conclusion, Dr. Semple said that the question *Cui bono?* might be put, and it might be asked of what use it was to dispute about words which, after all, were of no consequence, but he thought that the settlement of the question was a matter of very great importance. In the first place, if the diseases now comprised under the general name of "croup" were described under appropriate titles, the utter confusion in the existing text-books would be removed, and students and practitioners, in endeavouring to understand the subject, would not, as they now do, find the symptoms of the so-called "croup" described under the heading of "Diphtheria," and *vice versâ*. Still more important was it in practice to determine the difference between tracheal diphtheria where there was a false membrane, and infantile laryngitis where there was none—the latter disease being easily cured in most cases; while the former, although sometimes slight, is a most dangerous, and often fatal malady. Again, in reference to tracheotomy, it was of the highest importance to distinguish between the two cases. In infantile laryngitis the operation was free from danger, and was generally successful. An aperture was made in the trachea, and air was introduced to support respiration, and, while the tube was being worn, the inflammation of the larynx was subsiding, and eventually the patient was restored to perfect health. But in tracheal diphtheria the danger was aggravated a hundredfold, for there was a false membrane in the larynx or trachea, and the operation was performed and the aperture made not merely for the purpose of introducing air, but also for removing this membrane which was choking the patient; and, even after the successful performance of the operation, death might suddenly ensue from syncope under the influence of the constitutional poison of the disease.

Dr. Lownds said that the French experience was not all like Bretonneau's. In Paris the sanitary condition was so bad that the treatment often had recourse to (by emetics) would not do. In many respects, his experience of the various phases of dysentery in India corresponded to that as regards diphtheria.

Sir William Gull said the question raised was not as to the nature of diphtheria, except as far as this could be conveyed in simple language. The broad question could not be settled. Nevertheless, they were indebted to many for drawing attention to the fact that certain cases of croup were due to diphtheria; but it was also true that some were due to membranous laryngitis of a simple kind. Dr. Semple said that we must look to the etymology of the word. In such cases etymology was of little use. Twenty years ago he had reported on the subject to Mr. Simon, and he then pointed out that *diphtheritic* and *diphtheria* were not the same. He believed that an inflammation might generate its own poison. To begin, it might be a purely local phenomenon, but this might be of all intensities, some being slight, some surely fatal. A child's larynx was very susceptible of inflammation of a membranous kind. The epithelium there in early life was more pavement than ciliated. One great question was this: Can we diagnose the two kinds of membranous disease? Perhaps not certainly; still with a moderate degree of confidence. If the child was under two years of age, very likely the mischief was idiopathic; if over two years, and especially if the fauces were affected, it would be more likely to be specific. Many cases, however, where what seemed membrane was developed on the tonsils were not really of the kind referred to. He had remarked to Mr. Simon that such were often seen with scarlatina. Another question was this: If we see plastic inflammation extending to the larynx from the fauces, shall we invariably give iron and the like remedies? He thought not, and had sometimes given mercury with good results. Plastic inflammation might be good elsewhere, but it was the worst form where the larynx was concerned; and he had tried to make it, so to speak, of a lower form, though at the same time the patient had to be sustained by wine and brandy. All this had a bearing on the mixed nature of the disease, but, as a rule, the enlarged glands, rapid pulse, and typhoid condition would give a clue to the case. At the beginning, however, these were often not manifested, and then one might blow calomel into the throat, and use wine. He had had a melancholy experience of the disease, for many of his children had died of it.

Dr. Poore said that the report showed that membranous croup was very rare. He had, as most others, been brought up in a different belief, but for himself he had never seen one case. It was remarkable that those who knew most of diphtheria seldom used the word "croup." He thought the existence of membrane was often inferred, and when supposed to be expelled was often nothing more than dried mucus. He referred specially to one case—a patient aged twenty-six, who had been ill and suffered from hæmoptysis, but who with a virulent east wind often expectorated what looked like false membrane.

The Council of the Poor-Law Medical Officers' Association announce that the annual meeting has been adjourned from May to June, the day and hour of which will be duly made known to the members.

Dr. Henry Cazin, the worthy son of a worthy father who resided and practised in Boulogne many years as a physician, and whose memory is perpetuated by his fellow-citizens by a bronze bust on a monument in the cemetery, has been appointed Resident Medical Officer to the Hospital for Scrofulous Children at Berck-sur-Mer. This institution is founded and maintained by the town of Paris, and is situated about twenty miles south of Boulogne, near the sea, and has accommodation for 1000 patients. Dr. Cazin has been known for some years in Boulogne, not only as a clever medical man among his own countrymen, but as a thorough scholar in the English language, and he has naturally had many English patients. During the Franco-Prussian war Dr. Cazin worked so well among the sick and wounded that he was decorated with the Legion of Honour.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—At the late Medical Graduation Term, the following candidates, after the usual examinations, received degrees in Medicine and Surgery:—

The Degree of M.D.—James Anderson, M.B., C.M., Aberdeen; George Pearson Bell, M.B., C.M., Leicester; Arthur Bennett, M.B., C.M., Stawell, Victoria; Samuel D. Clippingdale, M.B., C.M., St. George-in-the-East; Robert Cran, M.B., C.M., North Lakhimpur, India; Frederick William Evans, M.B., C.M., Cardiff; Benjamin Evers, M.B., C.M., London; Robert Aikman Gray, M.B., C.M., Montrose; James Heelas, M.B., C.M., London; Henry Mason Jay, M.B., C.M., Chippenham; John Mackay, M.B., Dunkeld; Alexander Morrison M'Aldowie, M.B., C.M., North Staffordshire Infirmary; William Lemmon Steward, M.B., C.M., Keith; James William Helenus Trail, M.B., C.M., Aberdeen.

The Degree of M.B.—Lewis Daniel Alexander, M.A., Aberchirder, Banffshire; George Arthur Batchelor, London; Alfred Henry Burton, Sevenoaks; John Kerr Butter, Forfar; William Clarke, M.A., Deskford, Cullen; George Coutts, Kincardine O'Neil; Morgan Davies, Llangwyryfon, Cardigan-hire; Heber Dowling Ellis, Eastbourne; Ernest Field, Bath; Donald Manson Fraser, M.A., Invergordon, Ross; Heneage Gibbes, New Wandsworth; Charles Glass, M.A., Glenrinnes; Ho Kai, Hong-Kong; George Alexander Legge, M.A., Huntly; Charles Low, Dundee; Peter William Macdonald, Glenlivet; William Mackie, M.A., Fyvie; William Adam Michie, Aberdeen; Bonner Harris Mumby, Gosport, Hants; Forbes Robertson Mutch, Udny; Joseph Needham, London; William Henry Neilson, Bath; George Rae, M.A., Aberdeen; Archibald Reid, Glenbucket; George Jolly Shand, Aberdeen; David Skinner, M.A., Inverurie; Ernest Barratt Smith, London; James Murray Smith, Forfar; Frederick Henry Spooner, Plymouth; William Stericker, Brompton, Yorks; William Tawse, Logie-Coldstone, Aberdeenshire; George Taylor, Ladiesford, Fyvie; Henry Thomson, Aberdeen; Winckworth Tonge-Smith, London; John Lawrence Van-Geyzel, Ceylon; James Hutchison Walker, M.A., Peterhead; George Alexander Wilson, Huntly.

The Degree of C.M.—Lewis D. Alexander, George Arthur Batchelor, Alfred Henry Burton, John Kerr Butter, William Clarke, George Coutts, Morgan Davies, Heber Dowling Ellis, Ernest Field, Donald Manson Fraser, Heneage Gibbes, Charles Glass, Ho Kai, George Alexander Legge, Charles Low, Peter William Macdonald, William Mackie, William Adam Michie, Bonner Harris Mumby, Forbes Robertson Mutch, Joseph Needham, Wm. Henry Neilson, George Rae, Archibald Reid, George Jolly Shand, David Skinner, Ernest Barratt Smith, James Murray Smith, Frederick Henry Spooner, Wm. Stericker, William Tawse, George Taylor, Henry Thomson, Winckworth Tonge-Smith, John L. Van-Geyzel, James H. Walker, George Alexander Wilson.

Of the above-named candidates, Joseph Needham, David Skinner, M.A., and J. Hutchison Walker, M.A., received their degrees in Medicine and Surgery, with Highest Academical Honours; George Coutts, Morgan Davies, Donald M. Fraser, M.A., and Frederick H. Spooner received their degrees in Medicine and Surgery, with Honourable Distinction. The thesis by Joseph Needham was considered deserving of high commendation; the theses by Donald M. Fraser, M.A., David Skinner, M.A., and James H. Walker, M.A., were considered deserving of commendation.

At the same time, Alexander Hill Griffith was certified as having passed all the examinations, but did not graduate; and the following were declared to have passed part of their examinations:—

Alexander Vass Anderson, Matthew J. B. Anderson, Thomas Cochrane Anderson, George Collie Argo, David Mitchell Arthur, James Aymer, Andrew Baird, Charles Wm. S. Barrett, Alfred George Bateman, Harry Arthur Benham, Alexander Boswell, Alexander T. Brande, Thomas Thwaites Breese, William Hampden Brodie, Walter Brown, William Carnegie Brown, Edward Casey, Algernon Aaron Cohen, Robert John Collie, James Duffus, David Duncan, Arthur Symons Eccles, Arthur William Eddie, Robert Hume Fallon, Sylvester W. Findlater, James Grant Fleming, John Glaister, Henry Charles Gordon, Andrew Grant, Gerald Samuel Harper, Alfred Paul Hart, Gray Hassell, Joseph W. Hodgson, William Hoskins, Alfred Ireland, Fife Jamieson, Ernest John Jerome, Joshua L. Kerr, Norman H. Lawrence, William Leith, Frederick W. Lerew, Herman J. Liebstein, William Smith Lunan, Ernest Craven Lunn, Donald C. MacHardy, Alexander M'William, John Alex. M'William, James Gowing Middleton, James Moir, Satish Chandra Mukhopadhyay, Alexander A. W. P. Murison, Arthur Lodge Patch, James Petrie, Charles Edward Piers, James Robert Purdy, Arthur Purkiss, Duncan James Read, Charles B. Richardson, William Riddell, Charles Samuel A. Rigby, Hermann Rogers-Tillstone, James Rose-Innes, Peter Rough, Charles Simpson, Donald S. Simpson, Aaron Sims, William Dyne Steel, Alexander J. Struthers, William Stuart, Lewis H. Truefitt, William Wilfrid Webb, Percy Roberts Wilde, John Alexander Williams, John Dover Woodman.

The next professional examination for degrees in Medicine commences on Saturday, July 26 next.

UNIVERSITY OF DUBLIN.—At the First Commencements in Trinity Term, held on April 23, the following degrees in Medicine were conferred by the University *Caput*:—

Baccalaureus in Medicind.—Jones, Cyrillus Lloyd (ad eundem gradum apud Cantabrigienses).

Doctores in Medicind.—Jones, Cyrillus Lloyd; Evans, Gulielmus Robinson.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on April 24:—

Burnet, Robert William, M.D. Aber., 10, Nottingham-place, W.
Drewitt, Frederic Geo. Dawtrey, M.B. Oxon., St. George's Hospital, S.W.
Mickle, William Julius, M.D. Toronto, Grove Hall, Bow, E.

The following gentlemen were admitted Licentiates on April 24:—

Atkey, William Thomas, Chichester.
Baines, Allen Mackenzie, M.B. Toronto, 2, Storey's-gate, S.W.
Balls, James, King's College Hospital, W.C.
Barron, Herbert George, Southport.
Batson, William Lascelles, 68, Guilford-street, W.C.
Biggs, John Maundy, Dallington, Hawkhurst.
Birch, Richard Charles, Royal Infirmary, Manchester.
Boisier, Arthur Henry, Clifton.
Bousfield, Edward Collins, Bedford.
Corder, Sheppard Ransome, 12, Percy-circus, W.C.
Gardner, John Twiname, Ilfracombe.
Milles, Walter Jennings, 6, Wyndham-place, W.
Poland, John, Blackheath, S.E.
Smith, Ernest Frederic, Torpoint, Devonport.
Wadham, Frederick, 10, Milner-street, S.W.
Warwick, Percy, St. Helen's-road, Hastings.
Williams, Miles Melbourne, Royal Infirmary, Manchester.
Williams, William Roger, Enfield.
Williamson, Robert Inherwood, St. Thomas's Hospital, S.E.
Wood, Percy Moore, 6, Eglantine-road, S.W.
Woodcock, Robert Fraser, University Hospital, W.C.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 24th inst., viz.:—

Bedford, Robert T., Newhaven, student of Guy's Hospital.
Byers, J. W., M.D. Queen's Univ. Dub., Belfast, of the London Hospital.
Gulliver, George, B.A. Oxon., Canterbury, of St. Thomas's Hospital.
Jones, Albert E., Pontypridd, of the London Hospital.
Logan, Frederick T. B., Bristol, of the Bristol School.
Parkinson, George W., Sackville-st., W., of St. Bartholomew's Hospital.
Pierson, Alfred H., Lee, Kent, of Guy's Hospital.
Scott, Richard J. H., Kensington, of Guy's Hospital.
Stokes, H. F., Compton-terr., Highbury, of University College Hospital.
Sykes, William A., Golcar, Huddersfield, of St. Bartholomew's Hospital.
Wiles, Fredk. W., L.S.A., Wootton-under-Edge, of the London Hospital.
Williams, Wm. D. C., Sydney, N.S.W., of University College Hospital.

Three gentlemen were approved in Surgery, and, when qualified in Medicine, will be admitted Members of the College; and eleven candidates out of the sixty-eight examined having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 28th inst., and when eligible will be admitted to the pass examination:—

Altham, James, student of the Edinburgh School.
Blakesley, Henry J., of the Birmingham School.
Davies, John T., of the Glasgow School.
Dobré, William H., of the Edinburgh School.
Flitcroft, Thomas E., of the Glasgow School.
Herman, Christian L., of the Edinburgh School.
Howe, John E., of the Cambridge School.
Hyrons, Ernest A., of the Glasgow School.
Keith, Skene, of the Edinburgh School.
Mapleton, George H., of the Edinburgh School.
Maughan, James, of the Liverpool School.
Maxwell, Patrick W., of the Edinburgh School.
Mivart, Frederick St. G., of St. Mary's Hospital.
Richards, William, of the Birmingham School.
Strickland, Charles E., of the Birmingham School.
Swinson, Henry L., of the Birmingham School.
Willey, Charles H., of the Edinburgh School.

The following gentlemen passed on the 29th inst.:—

Cohen, Algernon A., student of the Aberdeen School.
Daniel, Frederic E., of the Birmingham School.
Gracie, Charles B., of the Liverpool School.
Horsfall, Thomas, of the Leeds School.
Jones, John H., of the Liverpool School.
Joseph, John B. E., of the Edinburgh School.
McCormick, Alexander, of the Edinburgh School.
McMullan, John, of the Dublin School.
Nicholls, Gordon F., of the Birmingham School.
O'Reilly, James, of the Edinburgh School.
Rowe, William B., of the Bristol School.
Sellers, William H. J., of the Edinburgh School.
Smith, Henry W., of the Birmingham School.
Thomson, Arthur, of the Edinburgh School.
Ward, Edward, of the Leeds School.
Watson, Henry G., of the Sheffield School.
Wedmore, Charles E., of the Cambridge School.
Wright, William H., of the Liverpool School.

The following gentlemen passed on the 30th inst.:—

Booth, George, student of the Sheffield School.
Foggin, John, of the Newcastle School.
Fuller, Andrew, of the Birmingham School.
Huntington, William, of the Liverpool Schoo'.
Jones, Arthur, of the Liverpool School.
Myles, James P., of the Bristol School.
Paget, Charles E., of St. Bartholomew's Hospital.
Pigott, Peter, of Guy's Hospital.
Rabbeth, Samuel, of King's College Hospital.
Shillito, William A., of the Sheffield School.

Stuart, Thomas P. A., student of the Edinburgh School.
Tatham, Edward, of St. Thomas's Hospital.
Till, George W., of the Glasgow School.
Unitt, James A., of the Birmingham School.

Twenty-three candidates out of the seventy-two examined having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their Anatomical and Physiological studies for three months, including eight candidates who had an additional three months.

The following were the questions submitted to the 150 candidates, on the 25th inst., now undergoing their primary examinations for the diploma of Membership of the Royal College of Surgeons, viz.:—1. Describe the mucous membrane of the duodenum, and contrast gastric with pancreatic digestion. 2. Give an account of the structure, chemical composition, and functions of the coloured and colourless blood-corpuscles. 3. Describe the articular surfaces of the bones entering into the formation of the ankle-joint, the ligaments, and synovial membrane of the joint. What movements does it admit of, and by what muscles are these effected? 4. The skull-cap being removed, describe the dissection necessary to expose the lateral and third ventricles, and give the boundaries of those cavities. 5. Enumerate the structures forming the spermatic cord at the external abdominal ring; and trace each to its origin and termination. 6. Mention the structures in contact with the inter-osseous membranes of the forearm and leg.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 24:—

Biggs, John Maundy, Dallington, Hawkhurst.
Fallow, Joseph, Cowley-road, Brixton.
Farndon, Levi, Bramley-road, Notting-hill.
Gardner, John Tivinaine, Northfields, Ilfracombe.
Harrison, James, High-street, Windermere.
Hayward, John Davey, Grove-street, Liverpool.
Waelchli, Gustav, Berne, Switzerland.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Lavies, Joseph W. Y. H., King's College.
Lewis, John George Stephen, Guy's Hospital.

At the Preliminary Examination in Arts, held at the Hall on April 25 and 26, eighty-three candidates presented themselves, of whom thirty were rejected, and the following fifty-three passed, and received certificates of proficiency in general education, viz.:—In the first class, in order of merit:

First: Thomas W. P. Lawrence and Lucy Ada Spilsbury. *Third:* Montagu Smith. *Fourth:* J. Errington Ker and Alfred Paget. *Sixth:* Redfern Fletcher, Hanway German, James Watson, Henry H. Wigg, and Leonard J. Willan.

In the second class, in alphabetical order, viz.:—

Letitia H. Andrew, W. C. E. Arthur, E. J. G. Birkley, J. A. Bower, Alfred Bowles, W. H. Brenton, A. L. Curtis, E. E. Dalton, D. L. Davies, H. J. Dring, C. W. Edwards, J. Emery, W. H. M. Emmott, Adolphus T. Field, F. W. Foster, G. S. Gent, G. B. Goodall, J. H. Griffin, Samuel Heap, E. B. Hogarth, W. B. Hopkins, W. G. G. Jones, A. F. Keyworth, A. T. I. Lilly, Emma Littlewood, F. Morgan, Rees Morgan, E. S. Nutting, C. J. Parkinson, Thomas H. Pickstock, H. A. Power, A. J. Rayson, Edward Richards, Arthur Roberts, R. J. L. Rowley, E. W. Simmons, Julia A. Spilsbury, W. Stafford, E. Stewart, Frederick Todd, E. F. Trevor, E. Vallance, Edwin Volckman.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

HARRIS, A. G. RAWSON, L.R.C.P. Lond., M.R.C.S. Eng.—Medical Officer to the Wandsworth Provident Dispensary.

INGLIS, ALEXANDER, M.D.—Physician to the Cheltenham General Hospital, *vice* J. Abercrombie, resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

WAR OFFICE—MEDICAL DEPARTMENT.—Surgeon-Major Alexander Watt Beveridge, M.D., retires upon temporary half-pay. The undermentioned Surgeons to be Surgeons-Major:—Thomas O'Reilly, Edwin James Fairland, Robert Murphy, Edmond Townsend, M.D., James O'Reilly, M.B., Thomas Sillery Cogan, James Francis Supple, Richard Colville Parkinson, Joseph Henry Moore, George Clerk Irving, Thomas Campbell Tolmie, Arthur Wellesley Roche, John Randal Croker, Jerome William Morgan, Thomas James Paul Holmes, M.B.

BIRTHS.

DE CHAUMONT.—On April 22, at Woolston Lawn, near Southampton, the wife of Professor F. De Chaumont, M.D., of a son.

GOLDSMITH.—On March 17, the wife of Septimus J. Goldsmith, L.R.C.P. Lond., Agency Surgeon, Sutna, Central India, of a daughter.

STRANGE.—On April 25, at Bicton, near Shrewsbury, the wife of Arthur, Strange, M.D., of a son.

STROVER.—On April 26, at Mill-hill, Hendon, the wife of Walter Strover, M.R.C.S. Eng., of a daughter.

MARRIAGES.

BENTON—VENOUR.—On April 23, at Wyke Regis, Samuel Benton, L.R.C.P. Lond., M.R.C.S. Eng., of Bennett-street, St. James's, to Caroline Isabella, youngest daughter of the late Walter Askell Venour, Esq., H.E.I.C., B.M.S.

BULL—ANDERSON.—On April 24, at Shenley, William H. Bull, L.R.C.P. Lond., M.R.C.S. Eng., of St. Oswald's House, Stony Stratford, to Louisa Lane, eldest daughter of the late Alexander Stevenson Anderson, Esq., of Glasgow.

FENTON—PEAL.—On April 22, at Ealing, Frederick Enos Fenton, F.R.C.S., of Macquarie House, Ealing, to Emma Florence, youngest daughter of the late Nathaniel Peal.

GIFFARD—TWEEDIE.—On April 29, at South Kensington, Douglas W. Giffard, M.R.C.S., to Mary Hay, youngest daughter of the late Thomas Tweedie, Esq., of Quarter and Rachan, J.P., and D.L., Peebles-shire, and Physician-General H.E.I.C.S.

HICKMAN—PERKINS.—On April 23, at Bournemouth, William Hickman, M.D., of 42, Robert-street, N.W., to Ada Steele, youngest daughter of the late Richard Steele Perkins, M.R.C.S.E., of Ashgrove, Overton, Flintshire.

STUBBS—BROUGHALL.—On April 23, at Sutton Maddock, Henry Stubbs, M.R.C.S., Eng., of Madeley, Shropshire, to Jennie, youngest daughter of John Broughall, of Sutton Hall, Shifnal, Shropshire.

WAGGETT—BATLEY.—On April 29, at Notting-hill, John Francis Waggett, B.A. Oxon., barrister-at-law, eldest son of John Waggett, M.D., of Ladbroke-grove, W., to Edith Bonsor, third daughter of John Batley, Esq., of 7, Kensington-park-gardens, W.

DEATHS.

JAMESON, WILLIAM HUGH, M.D., Surgeon-Major, Army Medical Department, at Caistor, Lincolnshire, on April 14, aged 40.

LEWIS, FREDERICK, L.R.C.P. Edin., M.R.C.S. Eng., at 42, Upper Gloucester-place, Dorset-square, on April 25, aged 40.

LYLE, JOHN PRIMROSE, third child of William Vacey Lyle, M.D., at 19, Westbourne-square, Paddington, on April 28, aged 9 years.

MACKAY, GEORGE, M.D., Inspector-General of Hospitals and Fleets (retired), and Honorary Surgeon to the Queen, at Sutherland House, Wellington, Somerset, from pneumonia, on April 26.

MASSY, HUGH DEANE, L.R.C.S.I., Surgeon-Major (half-pay), Army Medical Department, at 9, Rockstone-place, Southampton, on April 27.

POTTLE, JOHN ROWLAND, M.R.C.S., L.S.A., at 20, Bath-street, City-road, on April 11, in his 68th year.

REDFERN, CHARLES, M.R.C.S. Eng., at Grove House, Ventnor, on April 22, aged 62.

RICE, BERNARD, M.B., M.R.C.S., at Stratford-on-Avon, on April 29, in his 49th year.

WILSON, JOHN, L.R.C.P. Edin., M.R.C.S. Eng., late of 8, Ryder-street, St. James's, at 43, Lambert-road, Brixton-rise, on April 24, aged 63.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials as to character and ability, to Hugh Mason, Esq., Ashton-under-Lyne, on or before May 3. Applicants to state age.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon and Dispenser. Candidates must be unmarried, registered as legally qualified to practise medicine, and not more than fifty years of age. Qualifications and testimonials to the Secretary on or before May 23.

MIDDLESEX HOSPITAL, W.—Resident Physician's Assistant. Candidates must be qualified and prepared to enter upon the duties at once. Applications, under cover to the Secretary-Superintendent, by one o'clock, Saturday, May 10. Candidates to be in attendance at 1.30 p.m.

NOTTINGHAM DISPENSARY.—Assistant Resident Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons, England, Edinburgh, or Dublin, or of the Faculty of Glasgow, and Licentiates of the Royal College of Physicians at London, Edinburgh, or Dublin, or Licentiates of the Apothecaries' Company, and duly registered. Testimonials to the Committee at the Dispensary, on or before May 5.

RADCLIFFE INFIRMARY, OXFORD.—Physician. Candidates must be legally qualified to practise as physicians in England. Applications, with testimonials, to the Secretary, on or before June 6.

SAINT BARTHOLOMEW'S HOSPITAL, CHATHAM.—Assistant House-Surgeon. Candidates must be registered medical practitioners. Applications, stating age, with testimonials, to the Clerk to the Trustees, on or before May 12.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population in computed according to the census of 1871.

RESIGNATIONS.

Castle Ward Union—Mr. J. A. B. Thompson has resigned the Stamfordham District; area 28,338; population 2345; salary £20 per annum.

Downham Union.—The Wiggenhall District is vacant; area 17,678; population 3857; salary £46 per annum.

Droitwich Union.—The Claines District is vacant; area 10,349; population 6757; salary £93 15s. per annum.

Portsea Island Union.—Mr. S. Strickland has resigned the Railway District; salary £90 per annum.

Reigate Union.—Mr. W. H. Sargant has resigned the Eastern District; area 9810; population 2457; salary £44 13s. 4d. per annum.

Thirsk Union.—Mr. J. B. Gray has resigned the Knayton District; area 9282; population 1561; salary £21 per annum.

APPOINTMENTS.

Market Bosworth Union.—Charles S. Richardson, L.K.& Q.C.P. Ire., L.R.C.S. Edin., to the Twycross District.

Pontefract Union.—George P. Atkinson, M.R.C.S. Eng., L.S.A., to the Workhouse.

St. George-in-the-East Parish.—Samuel D. Chippingdale, M.B. and C.M. Aber., M.R.C.S. Eng., as Assistant Medical Officer at the Infirmary.

THE LATE DR. MURCHISON.—The funeral of this lamented member of our profession took place on Saturday last, at Norwood Cemetery, when, in addition to the members of the family, we noticed Drs. Bristowe, Burdon-Sanderson, Broadbent, Ord, and Cayley; and Messrs. F. Mason, G. W. Callender, Boycott, Geo. Lawson, Bickersteth; Professor Flower; Dr. Vaughan, Dean of Llandaff, Master of the Temple; etc.

THE APPROACHING SANITARY INQUIRY IN DUBLIN.—Dr. F. Frederick MacCabe, one of the Commissioners about to be appointed to hold a Government inquiry into the state of health of Dublin, is Inspector of the Local Government Board for Ireland—not of the Cork district, as stated last week, but of the Dublin district. In this capacity Dr. MacCabe lately succeeded Mr. William P. O'Brien.

ABSENCE OF TEETH AND SALIVA.—Dr. Bradbury refers in the *Boston Med. Jour.*, March 6, to the case of a man, aged twenty-four, who came to the Dental Infirmary for artificial teeth, stating that he never had "erupted" either temporary or permanent teeth. On examination, it was found that there existed what seemed to be remains of the inferior six-year molars, no other indication of teeth being present. But the most striking anomaly was the total absence of saliva. The tongue, which was deeply serrated transversely, and the other soft parts, were dry and leathery, so that his speech was thick and apparently laboured. He had never been able to take solid food of any kind, having subsisted entirely on soups and soft moist aliments. He was, however, perfectly well, and his food was digested apparently as completely as though it had been mixed with the usual amount of saliva.

NARCOTICS IN OBSTINATE NEURALGIA.—In an interesting paper on the treatment of obstinate neuralgia, published by Dr. Neftel in the *New York Med. Record* (February 1), he frequently alludes to the danger of creating a morbid habit of morphia, alcohol, etc. In one passage he observes: "The described cases, selected from a large number of similar ones, show that severe neuralgic affections often become complicated with a morbid habit of morphia, ether, chloral, alcohol, etc. Accordingly, great discretion is required in prescribing narcotics as palliatives in chronic neuralgia; and in case of necessity frequent changes have to be made, never allowing the same narcotic to be taken for any length of time. Even if the pain can be entirely controlled by some narcotics, constant efforts must be made to discontinue entirely their use by curing the neuralgia with some other means (*i.e.*, by the substitution of other narcotics). This is especially to be borne in mind in cases of alcoholic habit, and I find it absolutely necessary to insist that such patients abandon altogether the use of alcoholic stimulants, which always leads to a fatal result."

THE CATALOGUE OF THE AMERICAN NATIONAL MEDICAL LIBRARY.—All who are interested in medical literature will be glad to learn from the following paragraph, which we have taken from the *New York Med. Record*, March 15, that the printing of this great work, on which Dr. Billings has been so long engaged, is to be commenced forthwith, "the authorisation of the printing and binding of the first and second volumes of the index-catalogue of the library of the Surgeon-General's Office will be a subject for congratulation with medical scholars throughout this and other countries. A clause in the Sundry Civil Appropriation Bill names 20,000 dollars for that purpose. The volumes are promised by June, 1880. Although the succeeding volumes (which exist in MS.) are not yet provided for, a proper initiative has been taken, and there can be no doubt, when the proper time for their publication arrives, that the means will be forthcoming. The profession has taken a great interest in the project, and too much praise cannot be given to the Legislature for its action in bringing about the result."

MEDICAL JOURNALS IN THE UNITED STATES.—Fifty years ago there were eight of these; now there are fifty-three of the regular school, nine homœopathic, and seven eclectic. In the last fifty years 1630 regular journals and 214 homœopathic have been started. Thus about 6 per cent. of the former and 4 per cent. of the latter have survived.—*New York Med. Record*, February 8.

SULPHURIC ETHER IN SCIATICA.—Dr. Comegys states in the *Cincinnati Lancet* that in his hands, and in those of other practitioners, the hypodermic injection of thirty minims of sulphuric ether, night and morning, a little posterior to the great trochanter, has effected a cure in sciatica.—*New York Med. Record*, February 22. (Dr. Starr, of the Philadelphia Episcopal Hospital, injects one-eightieth of a grain of atropia into the tissues directly over the track of the painful nerve, with manifest advantage.—*Ibid.*, March 1.)

RELATIVE FREQUENCY OF GLAUCOMA IN EUROPE AND AMERICA.—Dr. Derby observes (*Boston Med. Jour.*, March 20) that, according to Von Graefe, glaucoma constituted 1·27 per cent. of all his cases; and 55,146 instances of eye disease in Europe furnished 688 cases of glaucoma, or 1·24 per cent. From 125,315 cases, which he has himself collected from the reports of various American ophthalmic institutions, only 645 are returned as cases of glaucoma, or 0·51 per cent. In his own private practice, among 8719 recorded cases he has had sixty-seven glaucomas, or nearly 0·77 per cent. Of these twenty-three occurred in males, and forty-four in females, the average ages of the former having been fifty-five and a half, and of the latter sixty years. Only four times, and always in females, has he met with the disease in the acute form.

THE METRIC SYSTEM.—"The Metric Club," 637, West Adams-street, Chicago, advertises in the *Boston Journal* that, in order to facilitate the introduction of the metric system, as well as to furnish a convenient posological table, it has published a "Visiting-List Dose-Book," in which the doses are given both in the metric and the apothecaries' weights and measures. It is light, and neatly bound in flexible silk covers, so that it may be carried in the visiting-list or pocket without inconvenience. This little book renders the use of the metric system easy and attractive even to old practitioners. "All physicians interested in the advancement of our science are urged to aid in placing it in the hands of the profession, not only by sending for it themselves, but by ordering it for their friends. Sent free on receipt of six cents in postage."

CASE OF ŒSOPHAGOTOMY.—Dr. Gay, Surgeon to the Boston City Hospital, relates a case of œsophagotomy which he performed on a woman aged forty-nine, who, forty-eight hours before, had perceived obstruction in her swallow while eating fish. She could only swallow a few drops of liquid with considerable difficulty, and had taken no solid food from the first. There were two sore points—one near the cricoid cartilage, which had persisted from the beginning, and another opposite the centre of the sternum, giving the patient the impression that the foreign body had moved downwards. The symptoms having become urgent, an incision three inches long was made at the left side of the neck, exposing the sterno-mastoid. The sterno-thyroid and sterno-hyoid were raised and drawn inwards, together with the upper part of the omo-hyoid, the sheath containing the large vessels being drawn outwards, and protected with a wide retractor. By means of the finger and a director, the dissection was continued down to the œsophagus, through the walls of which a sharp body could be felt pricking, at the bottom of the deep wound. It was seized with a dressing forceps, and carefully made to cut its own way out, pus flowing by its side. The fish-bone removed was thin and flat, with sharp borders and pointed extremities, and measured an inch and a quarter in length and a third of an inch in width. It was embedded in the posterior wall of the œsophagus opposite the cricoid. There was no hæmorrhage. The wound in the œsophagus, being so small, was left to itself, the external one being closed by silk ligatures. From Sunday to Thursday all swallowing was interdicted, enemata of beef-tea, with a little wine or brandy and a few drops of laudanum, being administered every four hours. On the fourth day the patient was allowed to drink freely. In ten days the wound had healed, without any food having ever passed through it. She was discharged three weeks after the accident, perfectly recovered.—*Boston Journal*, March 13.

MANCHESTER MEDICAL SOCIETY.—At a recent meeting of the Microscopical Section of this Society, Dr. Mercier read a paper on "A Case of Paralysis Agitans," illustrating it with sections of cord, medulla, corpus striatum, etc. After relating the clinical history of the case and the mainly negative result of the post-mortem examination, the paper reviewed the symptoms with a view to the localisation of the lesion, and then dealt with the essential nature of tremor with reference to any possible causal alterations of tissue recognisable by the microscope. The distribution and march of the malady were pointed out to be essentially the same as those of hemiplegia and hemispasm; and the inference drawn was that the change, whatever its nature, probably occupied the same region in the nervous system as the change in other affections of similar regional distribution in the limbs. The explanation of the phenomena of tremor was sought in those of normal muscular contraction, of which it was shown to be a modification; the difference being the lengthening of the interval between the successive discharges which, following one another with enormous rapidity, maintain the continuous contraction of normal muscular action. This lengthening of the interval might, it was contended, be due to one of two causes—either a diminished rate of discharge from the nervous centre, in which case each individual discharge would maintain its usual intensity; or to an increase in the resistance met with by the nerve current, in which case, while the discharges were fewer, the total expenditure of force remained the same, and each individual shock was therefore more powerful. The latter was believed to be the case in insular sclerosis, and the former in paralysis agitans. At the same time, bearing in mind that the nerve-centre still remained able to carry on its function, although with some defect, it was impossible that there could be any great structural change, and improbable that there would be even sufficient change to be recognisable. As a matter of fact, in the specimens shown, no structural alteration could be found in any part of the nervous system. Dr. Simon exhibited sections of cutis taken from patients suffering from scleroderma, elephantiasis Arabum, and solid œdema of the skin. He pointed out how they all three agreed in showing an excess of fibrous tissue, the scleroderma showing the most. The elephantiasis exhibited numerous lymphoid cells in the neighbourhood of the vessels. Dr. Leech then showed specimens of hair from a case of trichorexis nodosa. This affection was described by Beigel in 1855. The hairs exhibited small nodules where there was a tendency to break off sharply, the broken ends resembling small bushes. Dr. Cheadle had recently described a fungus which grew between the fibres of the hair. Trichorexis had only been noticed in the hair of the beard, moustaches, and eyebrows. In two cases treated by Dr. Leech the disease had proved troublesome and intractable. Dr. Ross showed some specimens of tubercle of the pons. Mr. Jones exhibited some sections of tubercular testis, the latter having been removed from a boy aged twelve years, and which had in its progress simulated malignant disease. His specimens showed that in this instance, at least, the tubercle had commenced in the cellular tissue between the tubules. The disease, contrary to the rule, had begun in the body of the gland. Dr. Moritz exhibited some specimens of "Charcot's crystals" which had formed after death in a clot taken from the blood of a leukæmic patient. It was not certain what was the composition of these crystals. They were rhombic needles, and apparently consisted of a phosphate of an organic base. They were insoluble in ether, alcohol, and chloroform; soluble in acetic acid and caustic soda. Dr. Ashby showed the abdominal viscera of a child a year old, which died of tubercular peritonitis of apparently about three weeks' duration.

ASSIMILATION OF COD-LIVER OIL.—Drs. Miller and Bennett, of the Philadelphia Episcopal Hospital, have instituted two series of investigations in relation to the assimilation of cod-liver oil, both of which have led to the same results. The stools of a number of patients placed upon the daily use of the oil were carefully examined; and it was found that in the majority of these cases these stools were oily, showing that the oil had simply passed through the alimentary canal without absorption. When the stools were oily, the patients appeared to have derived no benefit from the use of the oil; but in the few cases wherein the stools were not oily, and where the oil had been absorbed, the patients had grown fat.—*New York Med. Record*, March 1.

SYPHILIS IN RELATION TO DISEASES OF THE NERVOUS SYSTEM.—In a clinical lecture on pseudo-hypertrophic muscular paralysis, Dr. Weir Mitchell (*Boston Med. Jour.*, February 20) observes—"I have seen seven cases of this disease. In five there was a syphilitic history in father and mother, yet a specific treatment was as useless as it commonly is in cases of locomotor ataxia having also a possible syphilitic factor. The inutility of anti-syphilitic therapeutics under these circumstances has been disputed, but I am sure that it is true of my experience in ataxia and pseudo-hypertrophic palsy. Indeed, the previous existence of syphilis is too often taken as an assurance of specific treatment will be of use in sequent disease. I do not remember one success arising out of the presumption of syphilis as a parent of sclerosis. I have come to doubt the parentage, or to fancy that it might be due to syphilis, and not be itself a syphilitic phenomenon—a thoroughly reasonable suggestion, to my mind."

POISONING BY AN ATROPIA COLLYRIUM.—Dr. Lutaud laid the following case before the Société de Médecine de Paris. He was called to a *pharmacien* in a state of delirious agitation, apparently in great pain, but unable to articulate or reply to any questions. His eyes were prominent and bloodshot, and mydriasis existed to such an extent that the iris ceased entirely to act in the presence of light, and blindness was evidently complete. The heart beat tumultuously, and the breathing was short and stertorous; but neither paralysis, tremor, nor convulsions were present. The pulse was small and irregular, and the skin cold and viscous. The diagnosis was entirely obscure until it was learned that the patient had suddenly increased the strength of the sulphate of atropia in a collyrium he had been using, from five to ten centigrammes to ten grammes of water, and had employed this every hour. After the hypodermic injection of three centigrammes of morphia, delirium was replaced by an alarming stupor, followed by somnolence, which was easily combated by stimuli and by revulsives. Eight hours after the commencement of the first alarming symptoms he was able to reply vaguely to questions. After sleeping five hours longer, he awoke in a state of incredible calmness, asking what it was that was going on around him, and having no recollection whatever of what had transpired. The patient was able to resume his occupation in a few days; and M. Lutaud describes this rapid disappearance of the accidents produced as one of the characteristics of poisoning by atropia. He concludes as follows:—1. Instillations and collyria containing atropia may penetrate into the lachrymal points, pass into the pharynx, and induce serious symptoms of poisoning. 2. These symptoms are as remarkable for their intensity as for the rapidity with which they disappear. 3. Collyria with large doses of atropia should always be applied by the practitioner himself, who should make some pressure at the inner angle of the eye in order to prevent the liquid passing into the puncta.—*Union Méd.*, March 25.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Inquirer.—You can obtain an excellent "carte de visite" portrait of Dr. Murchison (the best we have seen of him) from Barraud and Jerrard, the photographers, of 96, Gloucester-place, Portman-square.

M.D., Fyfield.—Your communication received will be inserted as soon as possible.

L.R.C.S.E.—Vaseline is a mineral product, used chiefly as a basis for ointments, for which it has the special advantage of not being readily decomposed. It is therefore a very useful excipient, and is much employed alone as a bland application for skin diseases and wounds.

The Adulteration of Foods Act: Not "to the Prejudice of the Purchaser."—Prosecutions under this Act not infrequently disclose novel attempts to unduly strain the Act. The following case is not an exception to such instances. At Ashton the magistrates, last week, had before them a publican charged with a breach of the Adulteration Act. He sold a pint of rum which contained 11 per cent. of water. Counsel urged on his behalf that the transaction was *not* "to the prejudice of the purchaser"—a police superintendent. It does not appear that the spirit was sold as a dilution, but only 2s. was paid for it, and the superintendent admitted that at other taverns he had paid as much as 2s. 8d. The bench accepted the counsel's argument, remarking that the rum in question was 25 per cent. under the best in price, and only 11 per cent. under in quality, and that the police superintendent, in fact, got the best of the bargain.

Defects in the Education of the General Practitioner.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Would it be possible, in the Bill now before Parliament, to get a clause introduced making it compulsory for all those entering the medical profession to have, after passing their preliminary examination, two years' residence with a general practitioner who dispenses his own medicines, after the manner of an apprenticeship in times past? For about the last three years I have been obliged to have the help of a qualified assistant, and have had, I think, six—some just to come and leave in three or four or more weeks, not suiting at all; two to stay some time; and not one has understood surgery business. Taking a message, to begin with. It seems simple enough to learn who people are, what they want, and where they come from; but not one has been able to do it till I had taught him—and why? Because none had ever learned to take a message! Writing a prescription, again, the bungles I could produce from my day-books! Terse abbreviations conveying meaning to none but the writers; no order of prescribing adopted; and sometimes a prescription left unfinished because the writer did not know how to complete it. The art of prescribing in an elegant manner none knew anything of. I think hardly one I have had would have been clear as to what size a four-grain pill would be, from a prescription of his own writing; or able to disguise a disagreeable taste artistically—yet they were all fully qualified men, but had had no rudimentary instruction. Posting books and writing bills I have not been able to trust to any, for the simple reason they did not know anything about it. Dispensing none have been proficient in. Slovenly in their work, untidy in their finish, hardly one could fold up a parcel neatly, and there was a general want of systematic order. They all possessed some scratched-together knowledge of the branch of business, but none had been educated in it. Instruction in the minor operations common in a general practitioner's surgery, all have been wanting in. The points to which I am directing attention are those that can only be learned in the surgery of a general practitioner, and which are of essential importance in conducting a practice. A young man in his early career will learn with avidity the rudimentary knowledge that leads on to something else. Under the present system the rudimentary knowledge has to be learned last, and is therefore imperfectly acquired.

April. I am, &c., An Old Apprentice.

The Danger of Practical Jokes.—An inquest was held at Birmingham lately on the body of a woman who committed suicide under somewhat painful circumstances. It appeared the deceased had been much "put about" from having quarrelled with her neighbours. Some little time ago she received an unregistered letter for which she had to pay tenpence, and on opening it she found it contained a blank sheet of paper and a farthing. She was obliged to borrow the money to pay for the postage, and, being ill at the time, the trick played upon her preyed so acutely upon her mind that a few days ago she put an end to her existence by cutting her throat with a razor. The verdict of the jury was "That she committed suicide while in a state of unsound mind"; at the same time they "expressed their regret that anyone should be so mean as to play the prank of sending the unregistered letter to a woman afflicted with illness as the deceased was." The coroner coincided with this view of the circumstances. Practical joking too often results in some serious disaster, and it is to be regretted the perpetrator of the foolish act cannot be held responsible for the consequences.

The New Temperance Club.—The Committee of this Club have decided to name it the "Parthenon." Upwards of fifty members have been enrolled, and the Club, it is hoped, will be opened during the present year. Membership will not be restricted to abstainers, but intoxicating liquors of all kinds will be strictly prohibited.

The Canal Boats Act.—It is to be hoped the following case—the first prosecution under the Act—will be a warning against similar neglect in complying with the requirements of the Act. At Doncaster, on Monday, a boat-owner, who lived and slept on his vessel, was fined by the magistrates 5s. and costs for not having his boat registered. The penalty was inflicted as a warning to others.

Good Milk.—Some useful information is afforded by some experiments as to the use of acorns in agriculture, recently conducted by several foreign chemists and agriculturists, to which they have devoted considerable attention, the result of which is given in the *Deutsche Landwirthschaftliche Presse*. It is evident that the acorn, now used almost exclusively for pigs, can be put advantageously to some other uses. The chief purpose to which they can be applied is the feeding of milch stock. Herr Kost has tried this for several years with considerable success with a cow and a goat, and they were quite as well as when fed on oil-cake; while the milk and butter they produced tasted better, and had a better colour than when oil-cake had been used as the article of consumption. Herr Kost warns dairymen that care must be taken that the acorns are perfectly ripe when gathered, and that they are cooked with the food.

Dustmen and their Demands.—The Westminster District Board of Works, at their last meeting, had before them the negligence of the dustmen in the removal of dust and refuse; and much dissatisfaction was expressed by several members of the Board at the state of affairs existing in the neighbourhood. The chairman characterised the manner in which the street cleansing and the removal of dust were carried on, as "disgraceful." He never, he said, saw the thoroughfares of Westminster in such a dirty state. At many large establishments the dust, it was stated, had accumulated so as to be a public nuisance; and yet the dustmen would not remove it unless the ratepayers paid them. It was ultimately decided, on a division, by a majority of two, that the quarterly instalment due for street cleaning, removal of dust, etc., be deferred until the contract was properly carried out. The surveyor said the Board had the remedy in their own hands if they chose to enforce the contract.

Urban and Rural Sanitary Improvements.—The Burton-on-Trent Rural Sanitary Authority have under consideration plans for the sewerage of Burton-under-Needwood. An entirely new system is proposed to be laid down, and the sewage disposed of by irrigation. The cost is estimated at £2700.——Sewage works are being carried out at Calthorpe and Hollymoorside, Derbyshire.——The county magistrates of Essex have approved plans for the erection of a new recreation-room and dining-rooms at Brentwood Pauper Lunatic Asylum, at an estimated cost of £4500.——The Town Council of Derby has decided to carry out a scheme under the Artisans' Dwellings Improvement Act (1875), in three parts. By this plan it is proposed to remove blocks of dilapidated houses in the neighbourhood of Willow-row, Goodwin-street, and Wright-street, and to replace them by new dwellings. The total cost is estimated at £86,000.——A new cottage hospital is being built at Maidenhead by Mr. W. Woodbridge. It is intended to accommodate four male and four female patients. The cost will be about £1350.——The Town Council of Colchester has resolved to purchase the waterworks from the private company to whom they at present belong.——A new hospital for sick children has been erected in Queen-street, Belfast, at a cost of upwards of £5000.——The foundation-stone of a new dispensary and cottage hospital at Ross, Herefordshire, has been laid. The edifice will contain on the ground-floor a ward for males and another for females, four beds in each, fitted with lavatories, nurses' sitting-room, and domestic offices, as well as a mortuary. On the upper storey there will be a special ward for isolated cases, and nurses' and servants' bedrooms, etc.——At Withington the tender for the erection of the proposed new cottage homes and schools in connexion with the workhouse extension scheme has been accepted by the Guardians; but as the amount is £2000 above the sum which the Board obtained power to borrow, the work will not be proceeded with as early as was expected. The amount of the tender was for £16,924.——At Southend-on-Sea a Local Government Board inquiry has been held respecting an application from the Local Board to sanction the borrowing of £1000 for new sewerage works in Porter's Town, Milton-street. The Board has already borrowed £12,400.——A similar inquiry has been concluded on the Newmarket sewerage scheme, for which the Local Board seek to borrow £5000. The scheme proposes the utilisation of the sewage on the land.

The Public-house Sunday Closing Question.—The Bedford Town Council has just forwarded a petition to the House of Commons in favour of the closing of public-houses in England on Sundays.——At Aberdare a house-to-house canvass of householders on the question has recently taken place, the result being that 4659 declared in favour of closing, 210 against, and 182 were neutral. Of the publicans themselves, 45 were for closing, 28 against, and 12 neutral.——At Wolverhampton, at a conference of members of the West Midland Temperance League, under the presidency of the Mayor, a resolution was passed in favour of entire Sunday closing of public-houses.

Refreshments in the Parks.—The deputation which lately waited on the First Commissioner of Works as to the establishment of refreshment places in the Regent's-park on the coffee-tavern system, appear to be well satisfied with their interview. Mr. Noel was undoubtedly very favourably impressed with the suggestion, and there would seem to be good grounds for soon anticipating the initiation of the experiment on an extensive scale. Mr. Noel wisely laid particular stress on the necessity of fixing the tariff for refreshments at the lowest prices compatible with fair quality. This, it has been abundantly proved, can be successfully done where even heavy permanent outgoings have to be provided for, from which these proposed places of refreshment would be exempt.

Reforms in Poor-Law Administration.—An association has been organised—the offspring of the resolution recently adopted at a conference of guardians of various unions in London, with that object in view—consisting of various classes connected with Poor-law administration, in order that each board might obtain a knowledge of reforms in administration which have proved beneficial. The association includes the members of asylum boards, the managers of elementary schools under the Education Acts, and the officers as well as members of boards of guardians.

BOOKS AND PAMPHLETS RECEIVED—

Charles West, M.D., F.R.C.P., Lectures on the Diseases of Women, fourth edition, with numerous additions, by J. Matthews Duncan, M.D., LL.D., F.R.S.E.—Frederick B. Fisher, F.R.C.S., The Treatment of Pott's Disease, or Angular Deformity of the Spine—W. MacNeill Whistler, M.D., M.R.C.P., Lectures on Syphilis of the Larynx—E. Klein, M.D., F.R.S., and E. Noble Smith, L.R.C.P., M.R.C.S., Atlas of Histology, part iii.—Notation Case-Book, designed by Henry Veale, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Boy's Own Paper—American Journal of Otology—Leisure Hour—Sunday at Home—Nashville Journal of Medicine and Surgery—National Anti-Compulsory Vaccination Reporter—Veterinarian.

COMMUNICATIONS have been received from—

Mr. W. E. Poole, London; Mr. John Chatto, London; Dr. R H. Semple, London; Dr. Squire, London; Dr. George Johnson, London; Mr. T. M. Stone, London; Dr. James Russell, Birmingham; Dr. E. Symes Thompson, London; Mr. D. Colquhoun, London; Dr. G. E. Herman, London; Dr. F. Churchill, London; Dr. F. W. Pavy, London; Mr. Jonathan Hutchinson, London; Mr. W. Elliott Porter, Lindfield; The Registrar of the Royal College of Physicians, London; Dr. Moore, Lancaster; Messrs. C. Griffin and Co., London; Mr. John R. Oliver, Abbeyfeale; Messrs. Evans, Sons, and Co., Liverpool; Messrs. John Richardson and Co., Leicester; Messrs. Lynch and Co, London; Dr. Headlam Greenhow, London; Lieut.-Col. Boltar, London; Mr. T. W. H. Garstang, Doncaster; Dr. Edward I. Sparks, Mentone; The Secretary of the Royal Institution; The Secretary of the Royal College of Surgeons, Edinburgh; Dr. Clement Godson, London; The Registrar of Apothecaries' Hall, London; Dr. J. Williams, London; Mr. Morrant Baker, London; The Registrar-General, Edinburgh; Dr. J. W. Moore, Dublin; Mr. Robert H. Scott, London; Dr. Lush, Fyfield; Dr. Fred. Taylor, London; Dr. Williams, London; Mr. J. Wickham Barnes, London; Mr. James Scott, Bridport.

APPOINTMENTS FOR THE WEEK.

May 3. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. H. H. Statham, "On the Leading Styles of Architecture Historically and Æsthetically considered."

5. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Walter J. Coulson will deliver the Annual Oration, "On Modern Aids to increased Accuracy of Diagnosis and their Influence in the Treatment of Disease." To be followed by the usual *Conversazione*.

Odontological Society, 8 p.m. Mr. David Hepburn, "On Nicotine and its Effect on the Teeth." Casual Communications from Dr. Walker, Mr. Oakley Coles, Mr. Storer-Bennett, and Mr. S. J. Hutchinson.

Royal Institution, 5 p.m. General Monthly Meeting.

6. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Report of the Morbid Growth Committee on Mr. Lister's Specimen of Encephaloid Cancer of the Scapula. Dr. Thin—Specimens from the Horse of (1) Discrete Sebaceous Tumours; (2) Erythema Circumscriptum; (3) Eczema. Mr. Butlin—Growth in the Left Ventricle, with Embolism of Brachial and other Arteries. Mr. T. W. Cheyne (for Prof. Lister), "On the Occurrence of Organisms under Antiseptic Dressings." M. Parrot (of Paris), "On Disease of the Skull and other Bones in Congenital Syphilis." Dr. Lees and Dr. Barlow—Syphilitic Disease of the Skull (living specimens).

Royal Institution, 3 p.m. Mr. Ernst Pauer, "On Schumann." (With Musical Illustrations.)

7. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Epidemiological Society, 8½ p.m. Mr. Robert Lawson (Inspector-General of Hospitals), "On the Course and Distribution of Cholera in India in 1876."

Obstetrical Society, 8 p.m. Specimens: Dr. Percy Boulton—Extra-uterine Fœtation; Dr. Brunton—Congenital Ventral Hernia; Mr. J. Knowsley Thornton—Unilocular Ovarian Cyst of both Ovaries, with Fallopian Tubes attached. Dr. Barnes will open a Discussion "On the use of the Forceps and its Alternatives in Lingering Labour."

8. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Dewar, "On Dissociation."

9. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m., Mr. Bryant, "A Case in which a Biliary Calculus was removed by operation from the Gall-Bladder and a Cure resulted." Dr. Allen Sturge, "A Case of Spondylitis Deformans." Mr. Hulke, "Case of Sutural Junction of the Ulnar Nerve fifteen weeks after its Complete Severance by a Roofing Plate—Early Restoration of Function." Mr. A. T. Norton, "Papilloma of the Bladder—Excision—Death." Mr. Morrant Baker will exhibit a Case of Amussat's Operation for Artificial Anus."

Quekett Microscopical Club (University College), 8 p.m. Ordinary Meeting.

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Sir John Lubbock, "On the Habits of Ants."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 26, 1879.

BIRTHS.

Births of Boys, 1358; Girls, 1281; Total, 2639.
Average of 10 corresponding years 1869-78, 2398·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	934	837	1771
Average of the ten years 1869-78	741·6	693·2	1434·8
Average corrected to increased population ...	...	...	1535
Deaths of people aged 80 and upwards ...	...	...	74

Nots.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	6	7	4	11	10	...	...	1	2
North ...	751729	...	19	4	2	14	...	10	...	3
Central ...	334369	...	4	1	...	8	...	1	...	2
East	639111	...	7	3	...	27	...	...	...	2
South	967692	4	20	13	4	29	..	6	...	5
Total	3254260	10	57	25	17	88	...	17	1	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·475 in.
Mean temperature	44·7°
Highest point of thermometer	60·5°
Lowest point of thermometer	32·8°
Mean dew-point temperature	40·4°
General direction of wind	Variable.
Whole amount of rain in the week	0·72 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 26, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending April 26.	Deaths Registered during the week ending April 26.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2639	1771	60·8	32·8	44·7	7·06	0·72	1·83
Brighton	105608	44·9	68	38	57·1	36·0	45·4	7·44	0·42	1·07
Portsmouth ...	131821	29·4	93	47	...	...	...	...	...	..
Norwich	85222	11·4	51	46	60·8	34·0	42·9	6·06	0·57	1·45
Plymouth	74293	53·3	53	41	59·0	28·0	48·5	9·17	0·98	2·49
Bristol	209947	47·2	161	95	58·1	32·0	45·2	7·33	1·38	3·51
Wolverhampton ...	75100	22·1	65	30	54·2	29·5	41·1	5·06	1·49	3·78
Birmingham ...	388884	46·3	344	2.6	...	...	...	...	...	..
Leicester	125622	39·2	68	71	6·.2	29·0	44·3	6·84	0·52	1·32
Nottingham ...	169296	17·0	127	72	59·0	27·0	43·0	6·11	0·65	1·65
Liverpool	53833.	103·3	417	243	55·1	34·3	43·4	6·33	0·99	2·51
Manchester ...	361819	84·3	263	200	...	...	...	...	...	...
Salford	177849	34·4	135	9	...	...	...	...	...	...
Oldham	111318	23·9	71	53	...	...	...	...	...	...
Bradford	191046	26·5	132	63	58·4	31·6	42·5	5·84	1·13	2·87
Leeds	311860	14·5	212	130	55·0	31·0	41·6	5·34	1·05	2·63
Sheffield	297138	15·1	224	141	59·0	28·7	42·1	5·62	0·87	2·46
Hull	146347	40·3	116	60	61·0	30·0	42·5	5·84	0·40	1·02
Sunderland ...	114575	41·4	77	54	55·0	37·0	41·6	5·34	0·40	1·02
Newcastle-on-Tyne	146948	27·4	110	74	...	...	...	...	...	...
Edinburgh	226075	53·9	140	89	54·0	33·8	40·7	4·83	0·15	0·38
Glasgow	578158	95·8	452	268	55·0	34·2	42·9	6·06	0·45	1·14
Dublin	314686	31·3	193	211	62·3	34·0	47·4	8·55	0·41	1·04
Total of 23 Towns in United Kingdom	8502896	38·6	6210	4067	62·3	27·0	43·5	6·39	0·75	1·90

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·48 in. The lowest reading was 29·21 in. on Sunday at noon, and the highest 29·94 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON CANCER OF THE FACE, INCLUDING "RODENT ULCER."

By J. COLLINS WARREN, M.D.,
Instructor in Surgery in Harvard University, and Surgeon to the Massachusetts General Hospital.

GENTLEMEN,—The disease we are to study to-day is found in so many forms, I might almost say disguises, and runs so varied a course under changing conditions, that opinions differ widely as to its nature, and some of its forms not unfrequently pass unrecognised. It may be well to say at once that cancer of the lip is not included in the class, belonging to a different variety of cancer, and to diseases of the "mouth" rather than of the face. We find the growths chiefly above a line running from ear to ear beneath the nose, occupying the upper part of the cheek near the eyelids, or the sides of the nose, or the temples.

The following case is presented to illustrate one of its many phases. The patient, who was operated upon two days ago, and whose wounds are healing rapidly, is, as you see, an old man. He is seventy years of age. A small pimple was first noticed about eighteen months ago on the right temple, and he presented himself for its removal early in the autumn; at that time it had a papillary or nodulated look, and was somewhat discoloured by dirty crusts of epidermis. It was superficial, not going beneath the skin, and did not exceed an half inch in length. A growth on the cheek just below the eye, too insignificant to meddle with at that time, has since increased in size, and, though still small, was removed the day before yesterday, at the same time with a warty-like mass on the prepuce.

On close examination, you will be able to see that the skin has a look like that of many men of his age. There is a peculiar wax-like transparency of the temples and upper part of the cheeks, and just beneath the surface we can readily make out innumerable small yellowish bodies, at points so close together that they occupy a large part of the substance of the skin, and it is not difficult to recognise them as the sebaceous glands. As if to compensate for this extra softness of the integument, we find at certain points a thickening of the layers of the epidermis, forming little flat crusts, either of silvery whiteness, or, when mixed with grease and dirt, of a brownish hue. These are not conspicuous blemishes, and might readily escape the notice of a casual observer. Indeed, the general effect of this condition is to produce an appearance with which everyone is tolerably familiar in the complexion of many persons who have passed middle age, particularly in those who have a "weather-beaten" look. If we glance at the backs of the hands, we shall find a similar condition of the epidermis, and, in fact, on the left hand we see a firmly adherent discoloured crust about a quarter of an inch in diameter, directly in the middle of the dorsal surface.

His general health is excellent, and there has been no return of the disease in the cicatrix occupying the seat of the growth first removed. I have examined microscopically both specimens, but as the last excised is the smaller of the two, and in an earlier stage of development, I shall describe that first. Having hardened it in "Muller's fluid," I made a number of vertical sections so cut as to include a portion of the adjacent sound skin. On the edges of the section we see the follicles of one or two lanugo hairs, and the accompanying sebaceous glands, which appear decidedly out of proportion in their great size to the other structures. The epithelium and papillæ are normal. As we approach the diseased part we find the epidermis elevated by clumps of epithelial cells which project downwards into what appears to be a distended hair follicle, at the bottom of which is a sebaceous gland whose opening is choked with the same material, and whose contents are indistinct and opaque. The walls of the follicle appear to be thickened. The further development of the disease is better studied in the other specimen. Here we find masses of epithelial cells occupying the upper layer of the skin, and corresponding in situation and shape to the sebaceous glands seen on either side, which show changes indicating that they are soon to be involved. A more advanced condition still is seen in a specimen which I removed from the brow of an old man last spring. The growth was half an inch thick, and had penetrated nearly to the subcutaneous tissues. It was somewhat elevated above the level of the skin, and had an ulcerated surface and a base of about the diameter of half a dollar.

The appearance of the complexion was characteristic, and there were two small growths on the nose removed at the same time. These show the various stages of the same disease, from the formation of little lobulated clumps of epithelial cells just beneath the surface, to the development of tortuous masses of cells closely packed together, separated only by a delicate and scanty stroma, and involving the entire thickness of the skin, obliterating all other structures. The character of the individual cells is worthy of notice: they belong chiefly to a smaller type of epithelium than the fantastic forms seen in cancer of the lip. Occasionally we find the concentric arrangement—the epidermic balls seen in the latter disease; but this is rare.

I have thus sketched for you a type of cancer which is, perhaps, the most common variety seen in this region. Both the outward form and the microscopical appearance of these cancers may vary considerably. There may be more growth above the surface, forming a warty or pediculated tumour seated on a little patch of the same disease as a base. The microscopic structure is about the same as in the case first described. Although there is much disturbance of nutrition of the skin, the development of cancer is usually confined to one spot, yet it may be, as we have seen, multiple. Sometimes the disease appears to be just beneath the surface, which, although unaffected, is elevated here and there into little humps. Then the clusters of cells are "lobulated" in form; again, we have a wart-like form of growth. All these growths, if left to themselves, will sooner or later break down in the centre, where a scab covers an excavation of greater or less extent; but in certain varieties the retrograde changes make themselves manifest from the beginning, and keep pace so evenly with the new growth that the disease from the outset assumes the form of an ulcer.

When observed in its earliest stages of development, and in its most typical form, the ulcer is in shape and size similar to a horn waistcoat-button, having a flat depressed centre, and a narrow, evenly-formed rim. In appearance it is not unlike a vaccine-vesicle at a certain stage. There is the central scab and the narrow pearly border. This resemblance is more striking if we look at the growth through a large hand-lens—an instrument which I find useful in examining all doubtful growths about the face. When seen at this stage it is about three-eighths of an inch in diameter. The centre frequently appears to have healed over; the little button sits loosely in the surrounding skin, which is perfectly normal in look up to the very edge of the growth.

As the disease advances, which it does very slowly, its ulcerating character becomes more apparent. It may take years to double in size. Sometimes one portion of the rim will suddenly begin to grow out of all proportion to the other parts, and we have the ulcer replaced or masked, as it were, by a tumour. Usually, however, it continues to spread slowly, but is still as superficial as ever, and if the patient live long enough it may cover large surfaces, involving the nose, the eyelids, or the eye itself. Its growth is somewhat hastened by the use of salves and caustics, and if tampered with too much it may assume a very malignant type, penetrating even the bones of the skull. It is to these formidable conditions that the name *lupus exedens* and *noli me tangere* have been applied.

In the earlier stages it is best known under the name of rodent ulcer. From its tendency to ulcerate and under the vigorous application of caustics, portions of the cancer tissue are sometimes obliterated, and the base of the ulcer may then be composed almost exclusively of cicatricial tissue, of which there may be occasionally a very large amount. We must therefore hunt for the cells in the edge of the ulcer, where they will be found only after careful search and preparation. Owing to this fact the true character of the disease has been frequently overlooked, and even to this day there are many surgeons who do not recognise it as a form of cancer. Formerly this was the universal opinion. I have seen such growths pronounced by an expert microscopist, "inflammatory or sarcomatous ulcers," when I have been able after patient research to demonstrate most satisfactorily the cancerous structure.

The most frequent arrangement of the cells is, in my experience, that known as "tubular";(a) not that the cancer cells form hollow tubes, but they lie in solid masses in a tube-like system of canals which anastomose more or less freely with one another. The epithelium is very small and delicate, and reminds one strongly of that seen in the rete mucosum near the borders of the papillæ, or in the sheath of the hair follicles, and it is stained in a similar manner by carmine; but occasionally, as I have shown,(b) we may have at certain points larger epithelium around which there is a concentric arrangement of cells as in the more characteristic forms of cancer. This form is not constant; occasionally we find alveoli of oblong, circular, or tortuous shape, filled with these cells, and in the centre sometimes an epidermic ball.

So far as the development of this variety is concerned, I may say that I have found the cancer-cell masses at points to be continuous with the interpapillary epithelium, as if there had been an abnormal ingrowth of the epithelial covering into the parts below, simulating the changes observed in fœtal life, when the papillæ of the skin are formed; but one may examine a good many sections before finding any connexion of the disease with the normal epithelium. I have never been able to discover any connexion with the sebaceous or sudoriparous glands.

In the further progress of the disease we may find, in any of the varieties we are now considering, that the method of development may vary from that described. I have shown elsewhere(c) that the wandering cells may play a prominent part. The precise limits of this much discussed and investigated question, the origin of the cancer cell, remain still, in my opinion, unsettled. The weight of authority is now undeniably in favour of its direct origin from normal epithelial structures. I have, however, had satisfactory proof that in some instances this is not the case, and, although epithelium may exert an *action de presence*, as the French term it, that the connective tissue cells may be looked upon as the parents of the cancer cells. It is not of so much practical importance to determine the *origin* as the *nature* of these various forms of growth; and what I wish to impress upon you is, that they are one and all varieties of cancer.

They correspond to that class described by Thiersch in his admirable monograph as flat or superficial cancers, in distinction to the infiltrating (*tiefgreifend*) form, of which cancer of the lip is the type. The ulcerating form is most frequently seen about the nose or eyelids; but I have lately observed one typical case where it was found on the neck, below and behind the ear.

The patient was a man seventy years of age, and the ulcer the size of a quarter of a dollar and of two years' standing. There was a great deal of cicatricial tissue at its base, which was slightly adherent to the muscle, and the "crows' feet" folds of skin showed there had been more loss of substance than was apparent. He had used no caustics. Under the microscope it required a great deal of patient search to find a spot sufficiently typical of cancer to place its true nature beyond a doubt. This is what Billroth would probably call *scirrhus cutis*. These cancers of the face are chiefly found in old people, although I have found them in comparatively young individuals. They usually begin between the fiftieth and seventieth years.

There are clinical as well as anatomical data which give evidence of the nature of the disease. It is true we do not find any affection of the adjacent glands, but the disease may spread rapidly and become very destructive. Under these circumstances we find a corresponding change in its microscopical appearances.(d) The growth is essentially an infiltrating one, destroying rather than pushing aside the healthy tissues. Occasionally it returns after extirpation, but this is usually due to an instinctive unwillingness on the part of the surgeon to destroy a larger surface of the face than is absolutely necessary, and a minute fragment of diseased tissue may thus be left behind. There are, however, instances where a considerable interval of time elapses between the removal of the cancer and its subsequent return.

If the growth is excised, it should be wiped carefully and examined with a hand-lens, that we may be sure that the knife has not cut through diseased tissue. Provided you are sure of your bearings, determined carefully beforehand with a lens, it is surprising how close to the disease you can steer with the knife without fear of cutting into it. If the cancer is of the size which usually drives patients to seek relief, there is no danger that the wound may cause ectropion if near the eyelid, provided we bring the edges together so as to form a linear cicatrix on a line radiating from the centre of the pupil.

It is very common after excision that patients suppose the disease to have returned in the cicatrix, the nodulated character of which on so sensitive and conspicuous a surface is deceptive. On one occasion I removed such a scar, and found the second cicatrix as suspicious in appearance as the first—a condition which shortly after disappeared. Since then I have been obliged to calm more than one patient's fears, and always with the same result. Those who are afraid to use the knife sometimes scrape out the disease with a sharp spoon. The loss of substance is supposed thus to be reduced to a minimum. The use of caustics is nowhere so popular as in this region of the body, and they are to be advised in the very earliest stages of the disease, provided we can burn it out in a couple of sittings. Nothing can be worse than frequent applications of nitric acid, on a stick or glass rod, to the surface of the growth. When there appears to be little more than an abrasion of the skin, an ointment of chloride of zinc in the strength of two grains to the ounce may prove effectual.

The zinc may be applied, rubbed up with equal parts of fresh plaster of Paris, as recommended by Bryant, as it destroys and dries them. The most efficient substitute for the knife is a pointed stick of nitrate of silver, with which the disease should be thoroughly bored. By pinching up the fold of skin surrounding the mass with one hand, the parts to be burned are made more accessible, and the pain is diminished. Is there such a thing as prophylactic treatment? A great deal can undoubtedly be accomplished by proper attention to the hygiene of the skin. In old people, as we have seen, there is the tendency to derangement of the epithelial structures, which exists also in childhood, as may be shown on almost any boy's hands.

The formation of crusts or scales should be regarded with suspicion, and any tendency to a disturbance of function of the sebaceous glands should be corrected. Crusts may be removed, according to Bush,(e) by the application of soda on cloths—from 1 to 2½ per cent.—and subsequent washings with a weaker solution. It would seem almost needless to say that a judicious use of soap should be a daily habit. The "pores" should be kept well "open."

Esmarch recommends the use of Fowler's solution—one drop three times a day, gradually increasing until intolerance of the remedy follows—to prevent a return. I have never tried it.

You will observe that in the description of these affections I have not used the term "epithelioma." This name was first given to cancers of the skin when the epithelial character of cancer in general was not recognised. They were then thought to be a different disease, the epithelial structure being quite a striking feature. The term should now be discarded altogether, or substituted for that of "cancer," in whatever part of the body it may occur.

(a) Dr. Thin of London, and Professor Thiersch of Germany, believe this variety originates from the sudoriparous glands, the former considering it an adenoma.

(b) "Anatomy and Development of Rodent Ulcer," plate 2.

(c) "It seems justifiable, therefore, to conclude, from the data afforded by these observations, that, in some instances at least, the cancer cells are in no way connected during their development with previously existing epithelial structures; and that we are to seek for their origin rather among the young cells of new formation, which are present in large numbers, and with which the cancer cells appear to come in intimate relation." —"Anatomy and Development of Rodent Ulcer," page 57.

(d) "Case of *Noli me Tangere*," *Boston Medical and Surgical Journal*, vol. xcv., page 508.

(e) "Recent Progress in Dermatology," Dr. J. C. White, *Boston Medical and Surgical Journal*, vol. xcix., page 767.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—At a meeting of the Poor-Law Medical Officers' Association, on May 6, it was decided that the annual meeting shall be held at the Freemasons' Tavern, on Tuesday, June 3, at 3 p.m. The members of the Association will dine together at 6 p.m. It is hoped that poor-law medical officers will make every effort to be present on this occasion; and that they will signify the same as soon as possible to Dr. Rogers, 33, Dean-street, Soho, or to J. Wickham Barnes, 3, Bolt-court, Fleet-street.

ORIGINAL COMMUNICATIONS.

SYPHILITIC AND IODIC PURPURA.

WITH A

CASE OF FATAL PURPURA FOLLOWING THE ADMINISTRATION OF A SINGLE DOSE OF IODIDE OF POTASSIUM.(a)

By STEPHEN MACKENZIE, M.D.,

Assistant-Physician to, and Lecturer on Pathology at, the London Hospital.

(*Concluded from page* 281.)

2. Iodic Purpura.

The occurrence of purpura during the administration of iodide of potassium has long been observed, though even now often overlooked. I have already drawn attention to the remark of Virchow on the subject (page 280). There is a general concurrence of testimony to the fact that the purpura produced by iodide of potassium is usually limited to the lower extremities, and in the majority of cases to below the knee.

The most complete account of iodic purpura is to be found in a paper by Professor Fournier, of the St. Louis Hospital, in the *Revue Mensuelle* for September, 1877.(b) Professor Fournier adduces, as arguments that the appearance of the exanthem and the taking of the iodide are not a mere coincidence, the following observations:—1. In all the cases the purpura has appeared a very short time after commencing the iodide (from one to six days). 2. In some of the patients the same purpuric eruption has been produced several times after each new administration of the iodide; and in three of these it occurred every time the medicine was used. 3. In another case, in which the purpura was produced on three successive occasions, it was found in all these that whenever the dose was notably increased, a marked aggravation or additional production of the eruption ensued. The character of the rash, according to Fournier, is a discrete, round miliary eruption of spots, bright red when recent, non-elevated, not obliterated by pressure, unattended with heat, pain, or itching. The eruption comes on at an early period of the iodine treatment, and continues to appear for two or three days. It remains for a certain time as stainings of the skin, and, after undergoing the ordinary changes of colour observed in cutaneous hæmorrhages, finally disappears at the end of two or three weeks. During its progress a renewed attack may sometimes be produced by augmenting the dose, and then the bright red recent hæmorrhages contrast very markedly with those fading. The eruption, according to Fournier, is almost invariably confined to the legs; in one case only had he seen it on the thorax. It never extends beyond the knee or descends to the foot, and it is always more confluent on the anterior than on the posterior surface. In successive crops the spots are fewer in number than in the original attack. Fournier remarks upon the rarity of the affection, considering the frequency with which iodide of potassium is administered. He himself has met with but fifteen examples during the few years his attention has been directed to the point. In discussing the conditions which appear to act as the predisposing or occasional causes of its production, he remarks that whilst, *à priori*, one would be inclined to believe that a predisposing and adjuvatory cause would be found either in the impoverished, anæmic, or debilitated condition of the patients, or in some of the graver forms of syphilis, this is far from being the case. All the subjects of the affection he had met with enjoyed either a flourishing or a medium condition of health, and although some of these seemed affected with a certain degree of "lymphatism," none could be said to suffer from anæmia or scrofula, and none had presented anterior hæmorrhagic proclivities. Any of these who were the subjects of syphilis exhibited only benign or medium forms of this; two-thirds of the cases being exempt from any specific manifestations of this disease at the time when the iodide—which, in fact, was only administered as a preventive—produced the purpuric eruption. In his experience, neither age, sex, nor occupation (within doors or in the open air) had any influence on the occurrence. Nor could the disease be ascribed to excessive doses, since most of the patients had not taken more than fifteen grains when the purpura appeared. Still, quantity, he adds, is of moment, as when tolerance had been established to a given dose, a greatly increased dose—double the quantity, for instance—would produce an outbreak of purpura. Professor Fournier can only attribute the occurrence of purpura in patients taking iodide of potassium to the existence of individual idiosyncrasy with regard to different articles of food and drugs—a condition we recognise, but cannot explain.

Van Buren and Keyes(a) classify the bad effects which may result from iodide of potassium, and under the heading of cutaneous eruptions say—"Purpura may be caused by large, sometimes by moderate, doses of the iodide, chiefly in debilitated, anæmic subjects, suffering from syphilitic cachexia and tertiary lesions." A case is given to illustrate this point, where the patient was surrounded with every comfort, eating vegetables, not overworked, nor seemingly in any way scorbutic. The best marked cases of purpura hæmorrhagica from iodide of potassium, in these authors' experience, "are encountered in connexion with advanced tertiary disease, as in giving large doses of iodide for nervous syphilis." "Iodic purpura," they say, "rarely gets above the knee; it is accompanied by some œdema. It may occasionally reach the thighs, or be seen upon the hands. It often ceases to appear upon discontinuing the drug, or change of air. The exhibition of cod-liver oil, astringent preparations of iron, and other hygienic and tonic measures, are indicated."

One of the most remarkable cases of iodic purpura I have seen is the following, which illustrates many of its characteristic features. An out-patient, who had been seen the week previously by the Clinical Assistant in my absence, showed me some purpuric spots on his legs, which had made their appearance since his first visit. I suspected iodide of potassium as the cause, but, his book being mislaid, I could not refer to the prescription. Whilst it was being searched for I examined the contents (about two drachms) of the bottle which had held his mixture, and which he assured me had not been rinsed out, as he had taken the last dose just before starting. Chemical examination failed to show a trace of iodide of potassium, but I was not satisfied. On his book being found I learned that iodide of potassium had been prescribed for vague pains. At his next visit he told me his wife had, unknown to him, washed out his medicine-bottle whilst he was dressing to come to the hospital. I repeatedly gave this patient iodide, with the invariable result of producing purpura, limited to his legs. I was lecturing on purpura, and, wishing to illustrate the iodic variety, a few days before the lecture prescribed for him some iodide of potassium. When he came for the purpose of demonstration there were no spots on his legs, and he told us that, finding after taking his medicine for a day or so the spots came out in large numbers, he discontinued the medicine. I explained to him how he had frustrated my intention, and at his next visit, three days later, he presented his legs covered with purpura, which he had produced by taking the remainder of his mixture, to establish, as he supposed, my credit.

I have a patient now attending for lardaceous disease sequential to syphilis, in whom ten-grain doses of iodide of potassium produced circumorbital and suboonjunctival hæmorrhages in one week.

My colleague, Mr. Waren Tay, who has seen several well-marked cases of iodic purpura, has communicated to me the following example:—"A woman, aged forty-four, came under care at the London Hospital, September 27, 1869, for syphilitic periostitis of the skull. She had atrophy of one optic disc, following severe headache six years previously. Iodide of potassium was ordered in ten-grain doses thrice daily. On November 11 (six weeks later) it was noted that the periosteal swellings had greatly diminished, but she called attention to purpuric-looking spots on the legs. She said that when they came out they were 'bright' in colour, but when seen they were fading and of a dark colour. According to her account, she had had two previous attacks in the six weeks. A fortnight later (November 25) it was noted that the week previously (November 18) she had had a copious outbreak, occurring suddenly. The spots disappeared in four days. On December 16 another attack was

(a) Read before the Royal Medical and Chirurgical Society.
(b) Abstracted in *Medical Times and Gazette*, Oct. 20, 1877, page 445.

(c) "A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs." Churchill. Pp. 566.

noted, making the fifth in nine or ten weeks. This last outbreak was a very faint one."

Dr. Barlow recently called my attention to the case of a patient under his care at the London Hospital. A female, single, aged forty-two, was admitted for some obscure symptoms associated with progressive deformity of the skeleton, and preceded by arthritis, diarrhœa, neuralgia, etc. It was thought possible that the patient might be the subject of congenital syphilis, though the evidence on this point was extremely incomplete. On admission she was ordered a mixture containing five-grain doses of iodide of potassium three times a day. At the end of three weeks the medicine was given four times daily, but in a day or two she complained of frontal headache between the eyes, and of running at the nose, and in consequence of this the medicine was altered to twice a day. A day or two later, however, some spots were noticed on her legs, which she said had been coming out several days. The following note of the condition on April 3, 1878, was furnished me by Mr. Mitcheson, House-Physician :—"Along the inner side of the left leg, reaching from two inches below the internal tuberosity of the tibia obliquely downwards and forwards nearly to the inner malleolus, there is a band formed by the aggregation of numbers of bluish-red punctate spots, not raised, and not affected by pressure. The spots are spread out above the ankle and behind the malleolus into an irregular group. There are numerous spots scattered over the anterior and posterior aspects of the leg, but none on its inner side. On the inner side of the right leg the spots are irregularly arranged in a sort of line, corresponding to the band on the left leg (course of internal saphenous vein?). The spots are not nearly so numerous on the right as on the left leg, and most of them are scattered irregularly all over the leg. In neither limb do the spots extend below the ankle or above the knee, and no spots are observed on other parts of the body."

A case of purpura from iodide of potassium, occurring under the care of Dr. Bradbury, is recorded in the Hospital Reports of the *British Medical Journal* (d) :—"A brewer's labourer, aged fifty-eight, in whom iodide of potassium, administered for rheumatic pains, produced an eruption of purpura on the thighs, legs, and arms. Dr. Bradbury said he felt convinced that the purpuric spots were due to the iodide of potassium, for when he ceased to administer the drug for a fortnight the purpura disappeared. On the iodide of potassium being re-administered the spots reappeared, again to disappear on the drug being suspended. Dr. Bradbury's patient had also had several slight attacks of epistaxis." Dr. Bumstead also has recorded(e) a case where pemphigus, and apparently purpura, followed the administration of iodide of potassium. The patient, aged twenty-eight, was under care for ulcerations and nodes due to syphilis. Two days after taking iodide of potassium in twenty-grain doses, Dr. Bumstead found him "in a decidedly cachectic condition, with small purpuric spots thickly covering his feet and the lower portions of the legs." The chief eruption, however, consisted of bullæ of large size on the back of the neck, the forehead, face, and backs of hands. This eruption would probably correspond with what has been described by Mr. Jonathan Hutchinson as "Hydroa from Iodide of Potassium."(f) Dr. Bumstead writes :—"In this instance I suspected the miliary eruption of purpura which I observed upon the feet and legs was due to the iodide, but the patient was confident that it had existed for a long time." Wagner(g) says :—"The effect of iodine in some individuals is peculiar, in that it gives rise sometimes to exanthemata, sometimes to hæmorrhages."

Dr. Sydney Ringer, in his "Handbook of Therapeutics," (h) speaking of the toxic effects of the iodides of the alkalies, writes :—"In some persons iodides produce a petechial rash; affecting almost always the leg exclusively, rarely extending above the knee, and rarer still to the trunk or upper extremities. It may at first take several days to produce this rash; but when the spots have disappeared, a single dose of five grains may, in three hours, suffice to reproduce it. Sometimes in persisting with the medicine no fresh rash appears, and the old spots die away; while in other cases the rash endures as long as the medicine is continued. The rash may be the only apparent effect of the iodide, but it is generally accompanied in a variable degree by a few or many of the symptoms of iodism. The salts of iodine differ with respect to the production of this rash. Thus, in many cases the ammonium salt is most apt to produce it, and the sodium salt the least liable; in other cases, where the ammonium and potassium salts produce a large crop of petechiæ, the sodium salt is inoperative. Some persons are equally affected by each of these three preparations. In one case, while the ammonium and potassium salts produced numerous petechiæ, the sodium salt failed to do so, but excited on the arms some erythema marginatum. The petechial rash is often preceded by a sensation of heat, accompanied by some tenderness. These facts seem to disprove the assertion that either in the intestines or blood all iodides ultimately become iodide of sodium."

It thus appears that purpura may occur from both syphilis and the ingestion of iodide of potassium; and several of the cases I have given show how inextricably these two causes may be united in the same subject. It is quite possible that in some of the cases described as syphilitic purpura the petechial eruption has been due to the iodide of potassium administered for the syphilis. That such is not the fact in all cases, some of the instances I have given show; and we have the statement of Mr. Spencer Wells, that "*syphilitic purpura must be treated by* a generous diet and *iodide of potassium*" The occurrence of purpura with syphilis is interesting from the exanthem point of view of the latter, bringing syphilis in this respect into the category of variola, measles, scarlet fever, typhus, etc., in which hæmorrhagic varieties are sometimes encountered. It will be observed, moreover, that in all the cases I have given the purpura occurred in the secondary, or, as Mr. Hutchinson calls it, the "exanthem stage" of syphilis. Though syphilitic purpura appears in the majority of cases to be attended with no great danger, Bälz(i) has recorded a case where a patient with hæmorrhagic syphilis succumbed to the disease. Dr. Wilson Fox's case, also, is an instance of fatal purpura in a syphilitic subject, though he does not definitely ascribe the purpura to the syphilis. His case is particularly valuable from his discovery of a lesion of the bloodvessels which opens up the question as to the immediate cause of the hæmorrhages. Dr. Wilson Fox writes—"A very important question arises as to how far this affection of the capillaries (already described) can be logically considered to have been the cause of hæmorrhage. Any direct association of the two changes will probably be considered doubtful by many who know that lardaceous affections of tissues are rarely associated with hæmorrhage; and, further, that change in the parenchyma of organs and in mucous membranes thus affected is often preceded by a similar change in the smaller vessels. The evidence as it stands at present is decidedly against such a theory of causation, unless one or two possible hypotheses may be admitted to explain the connexion of the phenomena observed—(1.) May this lardaceous degeneration, which we know chiefly as a chronic disease, occur occasionally in an acute form, and in this manner so rapidly alter the elasticity of the vessels, before their diminished calibre can have retarded the flow of blood in the part, that rupture and hæmorrhage ensue? (2.) Is it possible that this lardaceous change, occurring only in tracts of tissue, may throw such a stress on the collateral capillary circulation of the tissue around, that adjacent but comparatively unaffected capillaries give way? These ingenious speculations are brought forward to explain the purpura apart from any connexion with syphilis. But it will be remembered that Heubner(k) has described a peculiar affection of the arteries in syphilis, though he limited the change to the vessels of the brain. Friedländer (l) has described a similar condition of the vessels in all parts of the body, and in other diseases besides syphilis. There appears, however, no tendency of this affection of vessels to cause hæmorrhage; indeed, its effects are in the opposite direction, and the condition has been designated "obliterative arteritis." At the recent discussion on Visceral Syphilis, at the Pathological Society, the question of syphilitic changes in the vessels was entered into,

(d) Vol. i. 1872, page 422.
(e) *American Journal of Medical Science*, 1871, July, page 99.
(f) *Clinical Society's Transactions*, vol. viii., page 151.
(g) "Manual of General Pathology," sixth edition (American translation), page 215.
(h) Eighth edition, 1878, page 111.

(i) *Op. cit.* (k) *London Medical Record*, vol. iv., 1876, page 50.
(l) "Ueber Arteritis Obliterans" (*Centralblatt für die Medicinische Wissenschaften*, 1876, iv., s. 65).

but no mention of hæmorrhages as the consequence of the change was alluded to. It would therefore appear doubtful if this particular change in the arteries in syphilis has any connexion with the purpura.

Equally with syphilitic, there remains a complete uncertainty as to the cause of the hæmorrhage in iodic purpura; and we are compelled to speculate as to the production of the hæmorrhage. Were the changes Dr. Wilson Fox discovered in his case to be found by other observers in similar cases, we should have some basis to stand on, and the occurrence of purpura in syphilitic subjects taking iodide of potassium might be explained in the following manner: While it is asserted by some chemists that iodine never exists free in the blood, there is an uncertainty on the point; and it is believed by others that when an iodide is absorbed the base combines with some other acid, and the iodine being liberated, combines with the albumen of the tissues (Binz). (m) We have seen how, in Dr. Wilson Fox's case of purpura, the vessels affected with the change he described became acted upon in a very marked manner by iodine. May it not be that this action of iodine upon the diseased vessels, observed under the microscope, occurs also during life, and by thus altering the constitution of the diseased vessels, modifies their capacity for resisting the pressure of the blood contained within their channel, and allows either of transudation of coloured blood-corpuscles to take place *per diapedesin*, or even causes them to rupture, and thus give rise to extravasation? Such speculations, based on a single case, will, I fear, be deemed worse than valueless. But whether this one makes any approach to correctness or not, there must be, over and above any alteration in the blood itself, some physical explanation to account for hæmorrhage taking place from particular vessels. That purpura has been observed to follow upon the administration of iodide of potassium in other diseases besides syphilis may further be considered to dispose of this hypothesis. But we have few observations on the condition of the minute vessels in purpura, and none whatever on the particular (non-syphilitic) cases in question. We are therefore driven to speculate. There may be other diseases besides syphilis which bring about a transformation of the vessels similar to that described by Dr. Wilson Fox. Dr. Dickinson(n) examined microscopically the vessels of the pia mater in a case of meningeal apoplexy associated with purpura, without finding a cause for the hæmorrhage; still, there must have been a cause for these giving way. The occurrence of purpura in connexion with amyloid disease has, however, been observed by Dr. Dickinson. I would ask for the experience of physicians in cases of lardaceous disease *treated with iodide of potassium*, for this appears to me of great moment in this connexion. Cancer and rheumatoid arthritis, I would further remark, are recognised occasional causes of lardaceous degeneration. That the hæmorrhages should occur chiefly on the lower extremities in iodic purpura, and perhaps also in syphilitic purpura, does not call for any particular explanation other than that required by the common forms of purpura. It does not point to special implication of the vessels of these limbs, but would rather indicate that the degenerated vessels exposed to the greatest stress give way before those which have not to support so great a pressure. Purpura of all kinds tends to locate itself in the lower extremities, where, owing to the arteries being furthest from the propelling power of the heart, and the veins acting against the force of gravity, the circulation is most feeble, and the capillaries and venules exposed to the greatest strain.

To return to the particular case, the subject of these remarks. To which cause are we to ascribe the purpura—syphilis, or iodide of potassium? Or, did the two, acting together, conduce to this result? These are not easy questions to answer, but I think we shall be at least justified in blaming the iodide of potassium as the proximate cause of the hæmorrhages. The sudden and almost immediate sequence of the purpura upon the ingestion of the iodide of potassium cannot be ignored, though it may be ascribed to mere coincidence. That iodide of potassium may give rise to hæmorrhages in as short a space of time as three hours, we have the testimony of Dr. Sydney Ringer. I have myself—as doubtless have many physicians—seen symptoms of iodism set in within one hour of taking a single dose of iodide of potassium. My conclusion as regards the case is, that the fatal purpura in the infant was caused by a single dose of two grains and a half of iodide of potassium. That the syphilitic dyscrasia under which the patient was labouring may have predisposed it to hæmorrhage on the ingestion of iodide of potassium, is more than probable; but it must be borne in mind that purpura has been known to follow the administration of iodide of potassium for other conditions besides syphilis, as in the case of cancer mentioned by Virchow, and Dr. Bradbury's case of chronic rheumatism. The case I have brought forward enjoins a caution on us as to prescribing iodide of potassium to young children. A very small dose only should be given to commence with, and if that is well borne the quantity can be progressively and quickly increased.

(m) *British Medical Journal*, vol. i. 1875, page 448.
(n) *Pathological Society's Transactions*, vol. xvii., page 13.

CASE OF INTUSSUSCEPTION—RECOVERY.

By WILLIAM H. PEARSE, M.D. Edin.

F. T., aged sixteen, male, was seized on January 16 with bilious vomiting. A sister suffered similarly. The attacks were ascribed to their having eaten some unaccustomed fish. F. T. vomited, however, during five days. At the end of January he was well and went into the country. I was called again on February 8, and found him vomiting bile, and "wind rattling" in the intestines. The history he gave was, that he had ridden twelve miles on horseback on February 3; had diarrhœa on the 4th; on the 6th he had slipped off three steps, alighting on the right foot; pain in the abdomen came on at 9 p.m., and vomiting at midnight; the bowels acted on the 7th. On the 8th he was vomiting bile, and there was much rattling of wind in the intestines; there had been no shivering. Temperature 98·4°; pulse 80.

February 9.—Temperature 98·4°; pulse 80. No motion; much vomiting; much rattling of wind in colon. A little dulness on percussion over cæcum.

10th.—Temperature 98°; pulse 90. No motion; fæcal vomiting. Up to this time he had been taking hydrocyanic acid and belladonna. He also took some moderate aperients on the 8th and 9th. I now gave an enema of three pints of warm water, and one ounce of sulphate of magnesia. Two small brown natural motions followed; vomiting ceased.

11th.—Temperature 98°; pulse 90; cheerful; cæcum and colon tympanitic; no vomiting; no motion. Belladonna and hydrocyanic acid continued.

12th.—Temperature 98°; pulse 94. Copious fæcal vomiting; no motion; enema repeated; medicine continued. Ung. hyd. applied over abdomen, under the linseed poultices.

13th.—Temperature 98·2°; pulse 88. No vomiting; no motion; much pain in abdomen, and distressing efforts at motion. A pill containing one-third of a grain of extract of opium and one-sixth of a grain of extract of belladonna was now given three times a day. Great relief from pain and the straining followed its use.

14th.—Temperature 98·2°; pulse 104. Copious fæcal vomiting; much effort, but no motion; no marked tenderness of abdomen. Pills continued.

15th.—Great relief of the pain in abdomen. Tongue a little brown. Expression anxious; dulness on percussion over cæcum. Passed long tube to cæcum; injected three pints of warm water, taking half an hour to do it. No motion. Pills continued.

16th.—Temperature 98·2°; pulse 114. Pills continued. No motion.

17th.—Temperature 98·2°; pulse 118. Copious fæcal vomiting; no motion. Pills continued.

18th.—Temperature 97·4°; pulse 118. Dull on percussion over cæcum; doughy lump felt there. No motion; much fæcal vomiting. Pills continued.

19th.—Much fæcal vomiting; no motion. Pills continued.

20th.—Several copious semi-liquid motions. After the motions, temperature 97·7°; pulse 106. Pills continued.

21st.—Several natural motions; no vomiting; temperature 97·7°; pulse 96. Dulness over cæcum gone; no vomiting. All medicine omitted; food taken.

22nd.—Temperature 97·7°; pulse 90; no motion. Food taken freely; no medicine.

25th.—A natural motion—the first since the 21st. Well.

Remarks.—In the early stages moderate aperients and aperient injections were indicated, as against bilious vomiting. The persistence of the vomiting aroused suspicion. I did not know of his fall until towards his recovery. The low temperature, quiet pulse, and general aspect of the patient, did not indicate acute inflammatory mischief. The history, symptoms, and physical signs over cæcum, pointed to intussusception. It was obviously a duty to give aperients in the early stage; it was a duty to abandon them when they produced no good effect, and when the violent tormina of the bowels was likely to be increased by their use; it was obvious also that injections had had a fair trial, and that their further use was unwise. Mercurial ointment was applied against any possible inflammatory adhesion. Whether the opium and belladonna helped towards the return of the natural function, I dare not say positively, but they were of great value in relieving distress; there was not only no contraindication, but great "tolerance" of opium. The "idea" is that opium quiets, whilst the belladonna induces a natural peristaltic action of the intestine. The knowledge that such cases have a natural tendency to recovery should check the practitioner from too active or violent remedies.

Plymouth.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

A GROUP OF CASES OF DISEASES OF THE RECTUM.

(Under the care of Mr. HULKE.)

Case 1.—Syphilitic Stricture of Rectum—Treated by Dilatation and by Iodide of Potassium and Corrosive Sublimate.

In this, as also probably in the two following cases, the stricture of the rectum was due to a local process induced by constitutional taint, as commonly happens in syphilis, and not the result of a direct primary sore, nor the consequence of proctitis induced by infective fluids trickling from the vagina along the perineum to the anus.

A married blonde, aged twenty-nine, was admitted into Queen ward, complaining of a distressing bearing-down, and of a puriform discharge, sometimes tinged with blood, from the bowel. This, she said, had continued about four months, and she had found during this time that the size of the motion had become very small. At one inch and a half from the anus an annular stricture was found, through which the finger-tip could be passed. Below the narrowing the mucosa felt smooth and healthy, whilst above it felt rough as if superficially ulcerated. She had been healthy before her marriage nine years ago. Two years later she miscarried, after which she had an ulcerated throat, her hair fell out, her health became broken, and quite recently she had had nodes on her shins. She was ordered to take potass. iod. gr. v., and hydr. corrosiv. gr. $\frac{1}{16}$, thrice daily. The stricture was treated by gradual dilatation with bougies, and decoct. quercus co. ʒij. was twice daily injected through the stricture with the object of controlling the catarrh of the mucosa of the dilated upper part of the gut. At the end of three weeks a full-sized bougie easily slipped through the obstruction. Defæcation was not attended by the former straining, and the discharge had much decreased. She then became an out-patient, with instruction to continue the use of the bougie, which her mother had learned to pass. When seen several months later, the local improvement was maintained, and her health had manifestly improved.

Case 2.—Very Tight Stricture of the Rectum, probably of Syphilitic Origin—Prolapsus Recti et Uteri.

This case aptly illustrates an occasional consequence of stricture of the rectum, where this offers great resistance to the escape of the fæces in defæcation, and the tissue-changes do not extend (as in cancer) beyond the gut, so that this is not fixed by them, but is free to move, and accordingly is forced, by the violent straining in defæcation, downwards through the anus. The cuticular condition of the lower end of the rectum evidently resulted from prolonged exposure.

A thin, haggard, peevish, fretful woman, aged forty-four, harassed by a winter cough, and looking as if she was addicted to drink, was admitted into Queen ward, February 4, 1875. She said that occasionally when standing, and generally when she walked, her bowel and womb protruded externally; she had constantly more or less urgent, forcing, bearing-down pain; and for a long time her bowels had not acted without a purgative. The anus was found very patulous, and encircled with bunches of piles and tags of thickened indurated skin. When she coughed the rectum was seen to be projected through the anus in the form of a blunt inverted cone, the surface of which, unlike that of a mucous membrane, was dry and cuticular. In the apex of the cone was a small round hole, of the size of a crowquill, through which a probe could be passed into the upper part of the gut. The condition was evidently a very tight, but short, stricture, and the prolapsus due to straining in defæcation. Her health, good before her marriage eight years ago, had been very broken since, and her husband acknowledged that he had had syphilis. She was ordered to take iodide of potassium with corrosive sublimate. Dilatation was begun, but, little progress being made, the stricture was incised at several points of its circumference. After this a large bougie passed easily through it, and a large quantity of hardened fæces was removed with enemata from the distended gut above the narrowed part. She appeared much relieved, but having quarrelled with the patient in the next bed, she left the hospital.

Case 3.—Fissure at Anus, with Painful Spasm of the Sphincter and Organic Stricture of Rectum.

Fissure of the anus with painful spasm of sphincter is so common an affection that the wards of any large hospital are seldom long without examples of it. Often occurring alone, frequently masked by a tag of thickened skin, sometimes associated with piles, its concurrence with organic stricture of the rectum is very infrequent. In this case a superficial examination would have left the impression that the crack with its associated cramp was all, for this alone sufficed to explain the patient's sufferings; yet high above the internal sphincter was a tight, thin, diaphragm-like stricture. The characters of this forbade the supposition of its being carcinomatous, whilst the condition of the mucosa between it and the anus favoured the idea of a prolonged subacute proctitis. Whether this was due to a constitutional taint (*e.g.*, syphilis), or to a local infection (as when, in the course of vaginitis, inflammatory products, trickling backwards when the patient is recumbent, infect the anus, and through this the gut), there was not any conclusive evidence to show.

A seamstress, aged twenty-eight, four years married, was admitted, February 1, 1876, into Queen ward, complaining of excessive pain during and after defæcation—pain so severe that she dreaded going to the closet, and abstained from doing so oftener than twice a week.

This painfulness began, she said, quite suddenly two years before. During the last nine months blood and slime had been noticed in her stools. She had been pregnant once, and miscarried. A careful inquiry failed to elicit evidence of syphilis.

At the front of the anus was a small tag of thickened skin, hiding the lower end of an exquisitely tender linear ulcer. Above the internal sphincter, at the full depth of the forefinger, was a tight, circular stricture which would not admit the finger-tip. It was a short membranous obstruction. The mucous membrane between it and the anus was thick, leathery, wanting in suppleness, and roughened by minute granular knots. Next day she left the hospital unwilling to submit to any topical treatment, and the further history is unknown.

Case 4.—Stricture of Rectum, probably Syphilitic—Colotomy—Death on the Third Day.

The patient had experienced relief when, some time previously, he had been an inmate of the hospital during several weeks; but the improvement was only temporary, and his condition became so aggravated that he re-entered the hospital with the wish that colotomy might be performed. The benefit he had seen another patient in the same ward experience from this measure doubtless influenced him in this. His sufferings were so great that, although there were grounds for fearing that his liver was cirrhosed, and he was plainly not a good subject for any operation, it seemed wrong to deny his wish. The stricture was judged to be the result

of chronic inflammation of the rectum, probably syphilitic, rather than cancerous.

An old soldier, aged fifty-one, who had previously during several weeks been an inmate of Forbes ward with stricture of the rectum, was readmitted January 15, 1878.

The anus was patulous, fissured in several parts of its circumference, and beset with tags of thickened skin. Within it the rectum for nearly as high as the finger could reach was contracted, so that the finger could only be introduced by considerable pressure. The surface was beset with raised hard ridges and folds. Above this the contraction was greater; it would not allow the passage of the finger, and its uppermost limit was not ascertainable. Poised on the finger-tip, the gut was distinctly movable, showing that the disease, whatever its nature, had not extended beyond it to neighbouring parts. This mobility, the chronic course, and the absence of ulceration at this late stage, were unfavourable to the supposition of cancer, and favoured the impression that the condition was a fibroid thickening due to a subacute chronic inflammatory process, probably of syphilitic origin.

The patient had had, he said, venereal disease, and he bore the mark of a chancre on the penis, and scars of suppurating buboes in the groins, in addition to which both groins had at this date a cluster of indurated glands. The superficial veins of the belly were unnaturally conspicuous.

Of thirteen children which his wife had borne to him, three only survived. He had had a discharge of slime, sometimes tinged with blood, from the rectum during seventeen years, and he had three times undergone operations for piles in another hospital. The discharge had latterly obliged him to wear a cloth. He had a plaguing tenesmus, and defæcation, only possible by great forcing, was very painful. As he came in with the wish that colotomy might be performed. it was done on the 30th. A little difficulty was experienced in cutting the colon, owing to its depth and being collapsed. No fæces escaped from the gut at the time of the operation, but they did so freely the same evening.

On the following day at 2 p.m. his pulse was soft, not accelerated, and his belly soft and not tender.

February 1.—Pain in belly; pulse 132; temperature 101°. Retching in afternoon. In the evening coffee-ground vomit. Rapid collapse, and death at 9·30 p.m.

His friends refused to permit an examination of the body.

Case 5.—Warty Cancerous Ulceration of the Lower End of the Rectum and Anus—Colotomy.

At the time this woman was taken into the Middlesex Hospital, excision of the lower end of the rectum had for some time been barred by the upward extension of the cancerous growth. At an early stage it might have procured a long respite, if not a permanent immunity, but the opportunity was lost through the omission to make an examination when she first sought medical advice. The supervention of the cancer where in earlier life there had been prolapsus, and its genesis in a chronic local disorder—possibly a small fistula, resulting from a suppurating external pile—are not without interest.

——, aged forty-six, was admitted into Regent ward on July 13, 1876. The posterior wall of her rectum was occupied by a large warty ulcer, the upper limit of which could not be reached with the finger. The anus and soft parts around, especially towards the left ischial tuberosity and also towards the coccyx, were browny-red, cracked, and ulcerated. She had distressing tenesmus, ejecting frequently small quantities of bloody slime and pus, and the passage of the fæces over the ulcer produced extreme suffering.

She narrated that in her twenty-second year she had an affection of the lower bowel, said to have been "prolapsus." It was attended with much loss of blood, and under treatment she perfectly recovered. Sixteen years later she married. She was never pregnant. Two years afterwards she first noticed a little knot at the left side of the anus. It was sometimes painful, and it discharged. Her health then failed. She sought advice at a dispensary, where, without examination, she was told it was a pile. The knot grew larger, and became so painful as often to break her sleep. In December, 1874, she applied at the Westminster Hospital, where the true nature of the affection was recognised. Soon after this she entered the cancer hospital. Learning that her condition was hopeless, she tried homœopathy, and lastly entered the Hospital for Women in Soho-square, from which she came to the Middlesex Hospital.

July 20.—The descending colon in the left loin was opened. A week afterwards—the condition of the wound being satisfactory, and the belly flat and not tender—her temperature rose to 102° Fahr. The cause of this was an abscess in the left buttock. In the subsequent course of the case others formed from time to time about the anus. The crusty ulceration continued to spread both within and outside the rectum, and particularly into the left buttock and towards the coccyx, so that she was unable to lie on her back or towards the left side, and was easy only when lying on the right side. The tendency of this posture was to favour the retraction of the colon from the surface, and convert the artificial anus into a deep, narrow, funnel-like pit. The surfaces of the opening were so tender that the presence of short tubes of soft rubber and vulcanite, by which it was hoped that the patency of the opening might be easily secured, could not be tolerated, and it was occasionally necessary to dilate it with laminaria tents. It could not be doubted, notwithstanding the inconvenience just mentioned, that the colotomy had afforded her great relief. She survived until the following summer.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, MAY 10, 1879.

THE LATE EPIDEMIC OF ENTERIC FEVER AT CATERHAM AND REDHILL.

On February the 4th the Local Government Board received a communication from Dr. Hilliard, of Caterham, to the effect that within the previous ten days twenty-five cases of enteric fever had come under his notice in that place, and that he had reason to believe that the disease had been caused by pollution of the water supplied by the Caterham Waterworks Company. Dr. Thorne Thorne was sent down, and commenced his inquiry next day, and his report, which has now been published, is extremely interesting, as he undertakes to prove not only that the epidemic, which altogether was an extensive one, was occasioned by the pollution of the water supplied by the Caterham Company, but

further that the contamination of that water was caused by the evacuations of one of the workmen employed by the Company. The first case in Caterham had occurred on January 19, and from that date up to February 2, forty-seven persons, in thirty-five houses, had been affected. The cases were spread over a very wide area, and the houses attacked belonged to no special class, both rich and poor having suffered. It was apparent that the disease could not have been conveyed to the affected houses by means of any general system of sewers common to the district, for by far the majority of houses were found to drain into separate cesspools excavated in the chalk, some of these cesspools, as well as the house-drains, being efficiently ventilated, others having no ventilation. Some of the houses affected had no artificial means of drainage, the liquid refuse being thrown on to gardens adjoining them. There was no possibility that there had been any common cause of infection in connexion with the prevailing means of excrement disposal, because there was nothing in common with regard to such disposal. Most of the houses in which the disease had appeared were provided with water-closets, a considerable number of which were apparently well trapped and ventilated. Others had closets fitted with a trap and pan, and emptying into cesspools, and though these closets were at times a source of nuisance owing to the absence of any flushing apparatus, yet they were all situated out of doors. Others, again, were provided with common privies, and a few with earth-closets.

The possibility of infection having been communicated by means of a milk-supply was next inquired into, and it was ascertained that thirty-three of the houses affected received their milk from at least five different and completely independent dairies, and that at the remaining two private cows were kept. It was also evident that personal infection could not in any way have led to the outbreak. Further, there was no history of any recent prevalence of enteric fever in Caterham. It was stated that the locality for some years had been remarkably free from the disease, and during the twelve months preceding the outbreak only one isolated case could be heard of. This, which was believed to have been imported, terminated fatally in August, 1878.

With regard to the water-supply, it was ascertained that out of a total of 558 houses in Caterham, 419 were provided with water from the mains of the Caterham Waterworks Company, the remaining 139 deriving their supply from local wells or from rain-water-tanks and barrels. Of the forty-seven persons attacked during the fortnight, January 19 to February 2, forty-five resided in houses where the water of the Caterham Waterworks Company was in use—a circumstance which, having regard to the other points already adverted to, indicated a likelihood that this water had been the means by which the infection had been conveyed; and this view received confirmation when it was further ascertained that the two remaining patients, who resided on premises where private wells were in use, had, owing to the nature of their employment, not only been in the habit of spending the day at houses to which the Company's water was laid on, but had admittedly used this water. Further, at the Caterham Asylum, with nearly 2000 patients, and at the Coldstream barracks, where 500 soldiers are quartered, not a single case of the disease occurred during the whole course of the epidemic; and both these establishments derive their entire water-supply from a well belonging to the Metropolitan Asylums Board, and which is sunk to a depth of 462 feet into the chalk.

Whilst these inquiries were being made, Dr. Thorne Thorne learnt that a similar epidemic was occurring at Redhill, which is about eight miles distant from Caterham, and differs from that place in several material respects, lying on the lower greensand, and being nearly throughout provided with a modern system of sewers, which is believed to be efficiently constructed and efficiently ventilated, and many of the drains connecting the houses with the sewers are also ventilated. But in both places the epidemic had commenced at about the same time, the first two attacks in Redhill having occurred on January 20. Evidence was obtained to the effect that Redhill had been previously quite free from the disease for at least eighteen months, and after January 20 fresh attacks occurred in fresh houses until the total number of houses affected reached ninety-six, and the number of patients reached 132. The milk-supply of the houses affected was ascertained to have been derived from many sources having nothing in common, either amongst themselves or with the Caterham dairies. But the water-supply for the greater part of Redhill is derived from the Caterham Waterworks Company. Of the ninety-six houses affected during the first fortnight of the epidemic, ninety-one habitually drew their water from the Company's mains; and the histories obtained with reference to the attacks in the remaining five were such as to confirm the impression that the Caterham Company's water had been the immediate cause of the epidemic.

In Redhill is a group of thirty houses supplied with water from a well at the South-Eastern Railway Station. In these houses not a case of enteric fever had occurred; while from the houses around them, supplied with the Caterham Company's water, numerous cases were reported; and both groups of houses are connected with the public system of sewers. Reigate town also, which has a different water-supply, escaped, only two cases, undoubtedly imported from Redhill, having occurred there.

Inquiry was then made to discover if the poison of enteric fever could in any way, and if so, in what way, have contaminated the Caterham water. Here Dr. Thorne Thorne's task was not an easy one; but after a long and searching investigation it was found that during the latter part of 1878 and the beginning of 1879 the Caterham Waterworks Company constructed an adit from one of their two old wells up to a new well and boring which had been making during the past twelve months. The old wells, which are of great depth, are connected by three adits in the chalk. The new well is situated within ninety feet of the other wells: whilst it was being made some complaints were made of a degree of turbidity of the water, and the construction of the adit was more than once hindered by the difficulty of keeping down the water-level. It may, therefore, be taken that there was free communication, before the new adit was finished, between the old wells and the new works. A number of men were employed in making the adit, some of them being in the well below, others on the surface. Inquiry was made as to whether any of these men had ailed whilst at their work, and it was ascertained that one of them who left work some time in January was believed to have been ill. This man, J. K., was, after some difficulty, found, and on examination admitted that he had been suffering, during the time he was at work for the Company, from violent diarrhœa, shivering, and aching pains all over, accompanied with loss of appetite and a general feeling of illness. He had, however, kept to his duties, but sought no medical advice on account of straitened circumstances, having been out of work for some time previously. At the time he was questioned by Dr. Thorne (on February 8) he had the appearance of a man who had recently suffered from some acute disease; he was still very weak, and it was obvious that he had greatly lost flesh. The position assigned to him at the works was that of "loading-man," and he was employed in the adit below in sending up buckets full of excavated chalk, and receiving

them when lowered full of bricks and mortar. He confessed that, when below, the diarrhœa had been so violent and continuous that he had evacuated into the buckets before sending them up, and this so frequently that complaints were made about it by his fellow-workmen on the surface; and he admitted that frequently some of the contents of the buckets fell into the water below, from the oscillations of the rope in drawing them up, and that the buckets were stained by the evacuations. It followed, therefore, that the stools of an enteric fever patient were, from January 5 onwards, getting into the Caterham Company's water, and being distributed with that water to the district served by the Company. It is known from large experience that enteric fever is produced, and with the maximum of certainty, when the specific evacuations of the disease are consumed by a population. And it is a matter of experience that where enteric fever has been conveyed through water, about a fortnight has to elapse between the distribution of the water and the occurrence of the disease among the community served by it. A fortnight after January 5 was the very day when the first case of the fever occurred, and during the fortnight following upon the period January 5 to January 20, *i.e.*, from January 19 to February 3, the disease became widely spread through Caterham and Redhill; the distribution of it being limited to houses supplied with the water of the Caterham Company.

Dr. Thorne goes very fully and minutely into the description of the workman, J. T.'s illness, and into the examination of all other suspected and suggested sources of infection; and it appears difficult to escape from accepting the conclusion that the Caterham works were infected by this workman.

No diminution was apparent in the epidemic until about February 11 and 12. Up to about February 20 the disease continued exclusively to attack persons residing in houses to which the Caterham Company's water was laid on, or it selected, from amongst those who habitually used another supply, those who had partaken of the Company's water occasionally, either whilst at their work, or during a visit to houses where it was laid on. After that time the disease became somewhat more diffused, and several of the late cases occurred in houses where there had been previous cases. Up to the end of February the number of attacks concerning which information had been obtained, and including thirteen cases in which the date of attack could not with any accuracy be obtained, was 305; of these, 224, of which nine ended fatally, occurred in the town of Redhill, and eighty-one, including five fatal cases, at Caterham.

The area of the Caterham Company's water service includes other places, and inquiry was made in those places as to circumstances that should confirm or disprove the conclusions arrived at. The results of the inquiry are stated very fully by Dr. Thorne, but we cannot afford space to give them in detail, and must be content to say that they seem to have been in harmony with the information relating to Caterham and Redhill, and that several cases of the fever occurred in Earlswood Idiot Asylum, till the use of the Caterham water was discontinued, on account of turbidity, the last attack being within a fortnight after the water was cut off. The total number of ascertained cases up to the end of February was 352, and the number of deaths twenty-one.

As soon as the indictment against the Caterham water seemed fairly proved, the sanitary authorities of the various districts concerned were warned to use other water if possible, or, if no other supply could be obtained, to have it thoroughly boiled before use. The Waterworks Company at once, and with great energy, adopted all measures which were found possible to do away with the results of the supposed contamination of their water. It was found impossible to pump the wells dry; but an amount of water considerably exceeding one hundred times the total contents of the wells and adits was pumped to waste, and, the water level having been materially lowered, the walls of the wells and adits were thoroughly cleansed and scoured with disinfecting fluid, large quantities of the disinfectants being also thrown into the wells. The reservoirs were thoroughly cleansed and disinfected, and the soil in the vicinity of the wells and reservoirs was again and again saturated with disinfecting fluid.

We must confess to having read Dr. Thorne's report with considerable suspicion as to the soundness of his conclusions that the epidemic had been occasioned by the pollution of the water-supply of the Caterham Company by the evacuations of one of their workmen. It seems perfectly clear that the Caterham water was the vehicle of infection; the proofs that J. K. was suffering whilst at work from enteric fever, and that the water could have been contaminated by his evacuations, seem almost, if not quite, indisputable; and no other possible source of contamination has been made out. The conditions of this huge and involuntary experiment seem to have been as nearly perfect as may be, and the indictment against the implicated water-supply appears at least fair and justifiable.

We will only add that throughout the disease was typical enteric fever, but the great majority of cases were of an exceptionally mild character; and although, when subjected to examination, they were ascertained to be genuine enteric fever, it is certain that, had it not been for the prevailing epidemic, no medical advice would in many cases have been sought, and some of the patients would not even have taken to their beds. By far the majority of those attacked were children; and, amongst adults, women were more frequently attacked than men. This might have been predicted, granting that water was the vehicle of infection, as children drink more water than adults, and amongst the latter, men, as a rule, drink less water than women.

THE TEACHING OF ANATOMY AND PHYSIOLOGY.

It will be remembered that some time ago we drew attention to the subject of the examinations in anatomy and physiology at the Royal College of Surgeons, especially as regarded the Fellowship. The immediate result of that article was a movement among the various teachers of those subjects throughout the kingdom. This again led to the drawing up of a memorial, which, with one insignificant exception, was signed by every teacher of anatomy and physiology in England. The memorial we published at the time. It insisted on the importance of a complete separation of the examinations in anatomy and physiology from each other; that more questions should be put, so that the student might have a certain amount of selection possible to him; and the memorialists further desired to see the amount of comparative anatomy required scheduled or defined as far as the Fellowship was concerned. Another clause in the memorial suggested that the College should receive a deputation farther to explain and illustrate what was the desire of the various teachers as regarded the examinations. On Saturday last the Committee of the Council of the College on Examinations received this deputation, consisting of representatives of the chief schools in London, and the result, we hear, is likely to be highly satisfactory to all concerned. All this may seem quite foreign to the heading of this article, which refers to the teaching, not to the examining, in anatomy and physiology. But it must not be forgotten that the Royal College of Surgeons of England constitutes the standard by which the vast majority of students of medicine

measure themselves. Any attempt to teach above and beyond that standard is received with indifference, if not with something worse, save by those who want to acquire such a diploma as that of the University of London. Nor should it be forgotten that the College has done within recent years much for the advancement of medical education in every possible way. It was therefore to no reluctant, still less recalcitrant, body that the teachers had to address themselves. The only idea expressed was that of making the examinations there conducted as satisfactory as possible; and were it only on this ground alone, the deputation would have cause to congratulate themselves, inasmuch as they elicited the warm and hearty response which was given to them.

As we understand, the chief points urged were that an improvement might be made in the *vivâ voce* examinations beyond that already made or suggested as regards the written. The general impression was stated as being that sometimes questions were asked which did not admit of an exact answer, or which, if they did, betrayed no knowledge properly so-called, but merely an effort of memory. The uncertainty of the results obtained in this and other ways has long been a subject of common discussion among students; and when a belief creeps in among men that the pass or pluck is very much a matter of chance, it destroys confidence, and encourages that fatal desire which sometimes cannot be combated, "to have a shy at it." Something, too, has to be said of the idiosyncrasies of examiners. Thus, at the last primary examination for the membership, it is currently reported that a man was asked—What is an idea? Another—The amount of cholesterin excreted in the twenty-four hours? Such questions are, of course, more or less absurd; but their worst evil is that they generate a feeling of a want of confidence, in itself highly unsatisfactory. At a recent examination, again, it is said that men were shown a blood-clot roughly shaped like a liver, and answered accordingly. This kind of question does incalculable harm. Fortunately, as it seems to us, the day has gone by when anatomy was dealt with as physiology now is; but there is still connected with this examining body a gentleman who is said to have removed the biceps muscle on one side, and to have substituted in its place the coraco-brachialis from the other, to have covered the shoulder and elbow, and examined the student on the intermediate portion containing the two coraco-brachiales. The story may be simply an "*on dit*," but it must not be forgotten that the impression these things make on the minds of students does not depend on the mathematical accuracy of the evidence. The "general impression" is what is to be sought for, not the statistical average, which is often very much more misleading. And when men who are preparing themselves for the higher ranks of the profession have to face such a question as that put not long ago, as to the functions of the supra-renal capsules, it is no wonder that men of a smaller calibre are reluctant to face the uncertainties of such and such-like questions in the examination for the membership. It is not here a question of "more light," but of more certainty; a greater security that men who are fairly well educated shall pass, and that men not so well qualified shall be rejected; but it is notorious that such is not now the case in all instances. Nevertheless, there is the feeling abroad that these matters have only to be explained to be remedied; and already the knowledge that what teachers and students so earnestly desire has been and is under the careful consideration of the College, has sent men to their daily work with renewed strength and spirit. When examiners and teachers do not often meet, or are not conjoined in their work, it is often a good thing that the veil which is apt to separate them should, for a time at least, be rent in twain.

PLAGUE AND QUARANTINE.

An interesting Blue-book has recently been issued, giving a full account of the information collected by the Local Government Board regarding "The Modern History and Recent Progress of Levantine Plague." There are also appended several important extracts and memoranda on the medical aspects of quarantine. The various papers, in their collected form, supply the fullest authoritative information at present available regarding the history of plague from its reappearance in the East in 1853 down to the present time.

The greater portion of the document is occupied by memoranda on the historical and geographical progress of the plague. These have been prepared by Mr. J. Netten Radcliffe from material contributed from many sources, but mainly from papers communicated to the Local Government Board by the Foreign Office. It is needless to say that this work has been most ably accomplished by Mr. Radcliffe; but as we were able to publish in full, in our number for March 8, a paper read by Mr. Radcliffe himself before the Epidemiological Society, in which he condensed the information spread over the historical memoranda in the Blue-book, we need not at present recur to the historical aspects of the subject.

It is to the concluding papers on the medical aspects of quarantine that we would at present wish more particularly to direct attention. All medical authorities seem agreed that anything like perfect quarantine is totally impracticable by commercial nations; but this whole question probably never received so searching an examination as it received at the hands of Mr. Simon in 1865, in his eighth report, as Medical Officer of the Privy Council, a long extract from which appears in the Blue-book before us. In that report Mr. Simon examined the subject of quarantine specially in regard to cholera, but his reasoning is equally applicable to all such epidemic pestilences, and is well worthy of re-perusal at the present time.

Mr. Simon admits that if quarantine could be conducted with the precision of a chemical experiment, an epidemic pestilence like cholera and plague could be kept out of Great Britain. But everyone will agree with him that a quarantine of the kind which would insure success is more easily imagined then realised. "Only in proportion as a community lives apart from the great highways and emporia of commerce, or is ready and able to treat its commerce as a subordinate political interest, only in such proportion can quarantine be made effectual for protecting it. . . . The conditions which have to be fulfilled are conditions of national seclusion; and the fulfilment of such conditions by England would involve fundamental changes in the most established habits of the country." He reviews the medical postulates of an effective quarantine, and shows the extreme inconvenience in personal and commercial relations that would attend its operation—an inconvenience so extreme that contraband of quarantine, like ordinary smuggling, would at once begin to be developed, so that, in a great commercial country like our own, the paper-plausibilities of quarantine can never be reduced to actual practice. As Virchow recently remarked in regard to plague, protection from it by means of quarantine could be hoped for only on the supposition that the officials employed were angels, and not fallible men.

But Mr. Simon had the facts of 1832-33 before him, when some sort of quarantine was adopted in England against cholera, and the results gave no encouragement to a repetition of the experiment; and he shows that since that date successive Governments have advanced further and further in the reduction of the establishments necessary for the enforcement of quarantine; so that, even at the time he wrote, he

did not hesitate to affirm that England had not in readiness the means for properly quarantining a single ship.

His conclusion—that for England, under existing circumstances, strict quarantine is a precaution of which there can be no serious thought—is one in which all medical authorities will still agree with him, should plague unfortunately break out again in Europe during the coming summer or autumn.

THE WEEK.

TOPICS OF THE DAY.

The annual return by the Registrar-General of births, deaths, and marriages in England for the year 1878 is particularly interesting, from the fact that it is enabled to give the records of a whole year's results, instead of dealing with only broken periods. The task of collecting the statistics for London alone may be imagined when it is remembered that its population now exceeds three millions and a half, or, including the suburbs, four millions and a half, which is equal to the number of persons occupying the combined capitals of France, Prussia, Austria, and Russia. The deaths in "inner London" include 18,220 from zymotic diseases, 15,509 from constitutional diseases, 37,825 from local diseases, 8695 from developmental diseases, and 3310 from violent deaths. Small-pox proved fatal to 1416 persons, whereas only 17 died from this disease in nineteen country towns. The fatality from measles was less than usual, and the same may be said of scarlet fever. On the other hand, whooping-cough claimed more than the average number of victims, the excess of deaths having been 1665. Scurvy and purpura were more than usually prevalent, and 202 deaths were attributable to alcoholism—a number above the average. There was also an excessive number of deaths from bronchitis, to which the exceptionally severe weather at the conclusion of the year largely contributed. The deaths from childbirth were 255, and 2916 persons died by accident or negligence, 78 by homicide, 315 by suicide, and 1 was executed. The number of persons killed in the streets of London was 237, and of these no less than 136 fell victims to vans, waggons, and carts. In public institutions 15,502 deaths were registered during the year; in workhouses, 9606; in general hospitals, 4549; in special hospitals, 531; in hospitals for foreigners, 138; and in lunatic asylums, 333. The mortality for the year was at the rate of 22·8 per 1000, —a result which must be regarded as astonishing, when the density of the population is taken into consideration. In the twenty-three great towns of the United Kingdom the corresponding rate was 24·4 per 1000, which is slightly below their mean mortality. Next week we shall give the results of the annual mortality in the different towns of the United Kingdom.

At last week's meeting of the Metropolitan Board of Works, the Works and General Purposes Committee reported that they had had under consideration the Artisans' Dwellings Act (1868) Extension Bill, and recommended that they be authorised to carry out any resolution at which they might arrive in regard to the Bill. Mr. Thompson wished to instruct the Committee not to oppose the second reading of the Bill, as in Clerkenwell there was a great amount of overcrowding, there being in many cases five, six, and seven occupants in one room, in consequence of the great demolition of property which had recently occurred. This amendment was seconded, but was ultimately rejected. Mr. Cook moved the adoption of the report of the Sanitary Committee, which recommended that four additional inspectors be appointed to carry out the provisions of the Slaughter-houses Act, and the Dairies, Cow-sheds, and Milk-shops Order, 1879, as no less than 8000 milk-shops and cow-sheds would be compelled to be registered in the metropolis. The report was accordingly adopted. Amongst the communications received was an application from the Holborn Union, requesting an advance of £25,000 to be expended for purposes in connexion with the building of the new infirmary for the parish at Highgate.

It is stated that Sir Alfred Power, K.C.B., has resigned the office of Vice-President of the Local Government Board for Ireland, which he has filled since the formation of the Board. He has been for many years one of the Poor-law Commissioners, having been an Assistant Poor-law Commissioner in England before the extension of the law to Ireland. Sir Alfred Power is to be succeeded by Mr. Henry Robinson, Assistant Under-Secretary at Dublin Castle, who was for many years an efficient officer of the Local Government Board before taking up his present appointment, and who is therefore thoroughly conversant with the administration of the department. The salary attached to the office of Vice-President is, we believe, £2000 per annum.

A report has been published by some of our contemporaries, which, however, requires confirmation, that the health of the beleaguered garrison of Ekowe was not so satisfactory as was at first stated. When relieved it was found that the hospital was totally devoid of medical comforts, and the medical officers were reduced to using horse-medicines and the bark of trees for the treatment of the sick. It is nevertheless announced that both the sick and wounded are doing well, and considering the depressing circumstances under which the position of Ekowe was so long held, Colonel Pearson and the medical officers serving under him there may be congratulated upon the comparatively small amount of sickness experienced.

The *Sanitary Record* says:—"In reply to an inquiry which was recently made of them, with regard to overcrowding, the Local Government Board took occasion to refer to some of the rules which, in the absence of a universal standard, have been made in various cases. Thus, the Commissioners of Police in London, and the common lodging-house authorities in several towns, have a minimum standard, determined in part by the height of the room, and in practice giving from 250 to 300 cubic feet for each person in the sleeping-rooms of common lodging-houses, these rooms not being occupied during the day, and special provision being made for their inspection by the police, or by an inspector appointed for the purpose of seeing that their ventilation is properly attended to, and that it is effectual. With regard to houses in the poorer parts of London, where one family live in each room of a house, the London police-magistrates have required a larger space, viz., for each inmate 400 cubic feet, reckoning two young children as one adult inmate; and this when there was proper provision for ventilation by means of fireplaces and windows made to open. The Board added that they must not be regarded as affirming that the standards mentioned are as high as they ought to be if the abstract question of health were alone to be considered; but they adduced them as standards that have been found practicable even in the dense population of towns, and under the practical difficulties introduced by the condition of the poorer classes."

In the House of Commons, last week, in reply to a question put by Mr. Anderson, as to whether it was intended in future to take steps for inserting the names of those gentlemen who were licensed to practise vivisection in the returns presented to Parliament, Mr. Cross explained that, when the Act was passed, an objection was raised to publishing the names of holders of licences, because it was thought that they might be subjected to annoyance by persons holding strong views in opposition to the practice of vivisection. It

was now, however, the view of the great majority of the holders of licences that there was no objection to the names being published, and probably that course would be adopted next year.

A deputation from the Society for Promoting Legislation for the Control and Cure of Habitual Drunkards last week had an interview with the Home Secretary, to ask him to use his influence with the Government to get Clause 2 of the Habitual Drunkards Bill expunged; this clause limits the operation of the measure to five years, and the deputation argued that no one would go to the expense of opening an institution for such a limited period. Mr. Cross replied that there was a great feeling at the present moment throughout the country against private lunatic asylums. The deputation then asked that Clause 9 of the Bill should be remodelled, so that it should not be necessary for a person to go before two justices of the peace to obtain admission to a retreat, and they suggested that the plan proposed by Dr. Cameron should be substituted. Mr. Cross said he was strongly opposed to any putting away of patients being done privately. He had no doubt that the matter would be regarded from different points of view, but Government were bound to take care that things were not put into the Bill which could be taken advantage of. For instance, people with troublesome relations might thus get rid of them, and great care would have to be taken that they were not unlawfully put away. Government had to see that the provisions of the Bill were not such as designing people might employ for other purposes. The deputation said that Lord Shaftesbury had consented to postpone the second reading of his Bill pending the obtaining of the support of the Government to the present proposals. Mr. Cross observed that he could make no promise one way or the other, but he would take time to think over their proposals.

The new Edinburgh Royal Maternity and Simpson Memorial Hospital, erected in Lauriston-place, was opened last week. It is a handsome building of three storeys, in the domestic Gothic style, and has accommodation for twenty patients, the cost having been £11,500, of which sum £2500 has been contributed as a memorial of the late Sir James Young Simpson. The building was formally declared open by Dr. Peddie, President of the Royal College of Physicians, Edinburgh.

HOW DO BIRDS DIE AFTER BILATERAL SECTION OF THE PNEUMOGASTRIC NERVE?

The above question was proposed as the thesis of a prize essay by the Medical Faculty of Königsberg in 1878, and the prize was gained by Herr Richard Zander of that town. Blainville and Billroth had previously shown that death after vagotomy is not the result of morbid alterations in the lungs. Zander believes, as the result of numerous experiments, chiefly on pigeons, that the birds die of inanition (*Centralblatt Med. Wiss.*, Nos. 6 and 7, 1879). He shows that the upper part of the digestive tract (the œsophagus and crop) is paralysed by the section of the vagus, and becomes unable to convey the food which reaches it from the mouth into the stomach or gizzard, although the desire for food remains normal, and the birds often peck up enormous quantities of food, which only serves, however, to distend the crop. The lungs are unaffected by section of the vagus, after a primary stage of hyperæmia due to stimulation of certain vaso-dilator nerve-fibres which reach the lungs in the vagus trunk, but this subsides in a day or two, and with it the accompanying dyspnœa. It is only if the nerves of the larynx are paralysed, or if great hyperdistension of the crop with food occurs, that the latter enters the lungs, and gives rise to pneumonic processes. Zander's experiments confirm the statement of Blainville and Billroth, that, after section of the vagus in birds, death is not directly due to changes in the lungs. But is it due merely to starvation, as Zander asserts? Professor Eichhorst, of Göttingen, who has also investigated this subject—see his memoir, "Die trophischen Beziehungen der Nervi Vagi zum Herzmuskel" (Berlin, 1879), and a reply to Zander in *Centralblatt Med. Wiss.*, No. 10, 1879,—affirms that he has invariably found in birds, after bilateral section of the vagus, very severe and extensive fatty degeneration of the cardiac muscles, and he refers their death to acute fatty degeneration and consequent paralysis of the heart. He agrees with Zander that the lungs have nothing to do with the fatal result, and he supports his own view (1) by the fact that birds live longer under starvation than after section of the vagi; and (2) that starvation does not induce a true fatty degeneration of the heart and of other muscles, as section of the vagi does. Zander considers that the great acceleration of the heart's rate of pulsation which follows section of the vagi may help to increase the fatty changes in the heart dependent on inanition, and to produce cardiac paralysis as a primary cause of death in some cases. Eichhorst, however, has kept healthy birds for long periods under the action of atropia, so as to induce enormous acceleration of the heart's action without any fatty degeneration; hence he denies that such acceleration has any share in causing the death of vagotomised birds. He assumes, instead, the existence of special trophic nerve-fibres which reach the heart in company with the vagus, and whose section interferes with normal tissue-changes in the muscular fibres, and permits the occurrence of fatty degeneration. How are we to reconcile the opposing views of Zander and Eichhorst? Probably there is truth in both, and starvation and fatty degeneration of the heart each contribute to the fatal result. Let us hope that the question may be settled by a more careful analysis of experiments already made, and that the answer may not depend on the death and sufferings of any more innocent victims.

CHEILO-ANGIOSCOPY.

Professor Hueter of Greifswald, who has lately furnished us with the method of which an account has been given in this journal under the title of "Dermatophony," now sends to the *Centralblatt Med. Wiss.* (Nos. 13, 14, 1879) a preliminary notice of a new discovery of his by which the capillary circulation of the blood can be observed in the human subject. He uses for this purpose the mucous membrane of the internal surface of the lower lip. The head of the examinee is fixed in a kind of photographer's head-rest, which is furnished with a chin-piece to which the microscope and the illuminating apparatus are attached. The lip is everted and fixed with forceps of special construction placed near the angles of the mouth. The circulation can be examined either by day- or lamp-light; in either case a strong convex lens is used to concentrate the light on the part. Professor Hueter has only used a comparatively low power, magnifying about fifty-two times, in the examinations he has as yet made. The first impression produced by a look through the microscope is that of a very fine injected preparation, but on choosing some well-illuminated superficial vessel for observation the movement of the blood can be seen. The red corpuscles look like fine points, the white like whitish rounded specks. The circulation in the capillaries of the lower lip is slower than in those of the third eyelid of rabbits and dogs; in the larger veins, on the other hand, it is rapid. The openings of the mucous glands can be seen surrounded by capillary vessels, and in the parts adjacent to the exterior of the lip the pavement epithelium can be made out under very oblique illumination while the bloodvessels are obscured. Pathologically, by

compressing a part of the lip with an eyelid forceps, the phenomena of venous stasis can be observed without much distress to the patient, if the experiment be not prolonged more than a few minutes. Professor Hueter believes that he has made out that, as in the mesentery of the frog, so in the human lip, a number of capillaries exist, which, under normal blood-pressure only, contain plasma, or, at most, a few occasional red corpuscles. These "*plasmatic*" capillaries, as he terms them, only fill with red blood-cells during venous stasis. The removal of pressure from the lip is followed in about ten minutes by the return of a normal circulation.

The application of ice to the mucous membrane causes instant arrest of the capillary circulation, probably from contraction of the smallest arteries; but in a few seconds all goes on as before. Chemical agents, the best of which is glycerine, cause slight aggregation of the red corpuscles, and irregularity of the flow, but without permanent stasis, and the phenomenon only lasts a few seconds.

Professor Hueter has not been fortunate enough to examine the circulation of the lip in any marked cases of septic fever, as Lister's method has rendered them few and far between in his clinic. Such cases as he has observed exhibited aggregation of the red corpuscles and momentary arrest of the blood-current, alternating with a sudden return of motion and onward rush of the aggregated corpuscles. In chronic suppuration, an increase in the number of white blood-cells is easily detected, and all kinds of disturbances of the circulation occur in the finer vessels—mainly, however, owing to aggregation, not of the red corpuscles, but of the white. Where fever with evening exacerbations is present, these disturbances intensify as the temperature rises. Professor Hueter recommends the lips of scrofulous children to begin the study of "cheilo-angioscopy" on. Scrofulous adults often have a thickened epithelium, which blurs the vessels. The method is not available for clinical purposes without some practice. No doubt it will before long be applied to several febrile diseases, to which Professor Hueter makes no allusion—for example, facial erysipelas, and the acute exanthemata, especially scarlet fever. By very powerful illumination—by the electric or the lime light—possibly numerous lenses might be available. At present we must be content with what the discoverer tells us.

THE AWARD OF THE CARMICHAEL PRIZE ESSAYS.

On the afternoon of Monday, May 5, the President and Council of the Royal College of Surgeons in Ireland met in the lecture theatre of the College, Stephen's-green, Dublin, for the purpose of announcing the result of the competition for these prizes. They are given every four years under a bequest in the will of the late Mr. Richard Carmichael, the celebrated Dublin surgeon, and consist of a prize of £200 for the best essay, and one of £100 for the second best essay on the following subjects:—1. "The state of the medical profession in its different departments of physic, surgery, and pharmacy, in Great Britain and Ireland, at the time of the writing of these prize essays." 2. "The state of the hospitals and schools of medicine, surgery, and pharmacy." 3. "The state and mode of examination or of testing the qualifications of candidates of the different licensing colleges or corporations in medicine, surgery, and pharmacy." The chair was occupied by the President of the College, Dr. Philip C. Smyly, and there was a very numerous attendance of members of the profession and of students. The President, after some remarks on Carmichael's career, and on his numerous works, said that it would be especially appropriate to the occasion to advert to one, the title of which was "A Letter to Sir Robert Peel on a Plan of Medical Reform, and Reorganisation of the Medical Profession, without subverting the existing Colleges of Physic and Surgery." At the present time, when so much anxiety and interest were felt with regard to the subject of medical reform, it was interesting to see how Carmichael's mind forecast the future then before him, and anticipated not only measures which had been since carried out, but others which were still wanted. He said in that essay—"I shall not, however, enlarge upon the reasons that render the improvement and reorganisation of the medical profession indispensably necessary. They will be sufficiently obvious by laying before you what the majority of medical reformers require, viz.: first, a good preliminary education, such as is required for those who enter the other learned professions; second, a good practical professional education, to be tested by a scrutinising demonstrative examination; third, equality of qualification in each great division of the United Kingdom; fourth, the union of physic and surgery, at least in education; fifth, the separation of the practice of pharmacy from the practice of medicine as far as the interests and usages of society may permit." By his will Carmichael left £4500 to the Royal Medical Benevolent Fund Society of Ireland, which he (the President) was happy to say was growing in favour with every medical man. In connexion with the College of Surgeons, which had been flourishing for so many years, and which they all desired should continue to flourish, he left a sum of £3000, with directions that every fourth year the accumulated interest of it should be given in the two prizes which they were that day met to award. The gentlemen who had been selected to read and decide upon the merits of the essays which had been sent in were the Vice-President (Dr. Mapother), Dr. M'Clintock, and Dr. Stokes. The report of the judges stated that they had carefully read the twelve essays which had been sent in, and that they had awarded the first prize to that signed "Nil actum reputans si quid superesset agendum," and the second to that signed "Audax." The President having opened the envelopes containing the names of the successful competitors, announced that the winner of the first prize was Walter Rivington, of 22, Finsbury-square, London, E.C.; and the winner of the second was Thomas Laffan, of Cashel.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of this Society was held on Wednesday evening, April 30, in the rooms of the Royal Medical and Chirurgical Society, the use of which was granted by the kind liberality of that Society. The chair was taken by the President, Sir George Burrows. The meeting was numerously attended, the change of hour (from eight to five) evidently suiting the convenience of members. The Secretary read a summary of the proceedings of the Society for the year 1878, from which it appeared that a sum of £3199 had been received, available for the payment of grants and expenses, and a sum of £3084 had been expended. The total grants to the widows and orphans had been £2896, and the expenses of the year £188. A legacy of £500 and a composition fee of eleven guineas had been invested. Thirteen new members had been elected, seven had died, and five had resigned; the total number of the members at the end of the year was 386. Two widows and three orphans had ceased to receive grants, and two orphans had been taken on. There were fifty-eight widows and eleven orphans receiving ordinary grants, and three orphans on the Copeland Fund, on the books of the Society on December 31. Dr. Iliff, Mr. Sheehy, Dr. Brodie, Dr. Hare, Mr. Holden, and Mr. Heath, were elected in place of the six senior directors who retired by rotation. Dr. Andrew Clark, having presented £100 to the Society, was, on the recommendation of the Court of Directors, elected an honorary member. A vote of

thanks to the editors of the medical journals for their kind advocacy of the interests of the Society was proposed and carried. The meeting was made special to consider certain alterations in the by-laws of the Society proposed by Mr. Charles Hawkins, Vice-President. The alterations proposed and approved of chiefly related to the general meetings of the Society and to the publishing by the Court of Directors of an annual report. A cordial vote of thanks to the President for his kindness in presiding at the meeting, and for the great interest shown by him in everything connected with the well-being of the Society, was carried unanimously.

THE UNIVERSITY COLLEGE HOSPITAL DINNER.

On Tuesday evening last a select company of the friends and supporters of University College Hospital sat down to dinner at Willis's Rooms, under the presidency of Mr. Alderman Fowler. It is the custom of this Hospital—and we believe it a good one—that, blow high, blow low, they have a dinner each year. It is quite true that the amount of money collected on such occasions varies much, and that when collected and received it represents in many instances what would otherwise come to the Hospital in the course of ordinary circumstances. But the mode of the announcement of such supplies gives a certain *éclat* to the givers which is not without its influence, and it gives to the Hospital the sound security of a balance in hand. The character of public dinners is well understood: in some places you have a good dinner, in some you are sure to have a very bad one; but it is satisfactory to note that at Willis's you may be always sure of getting something wholesome to eat and to drink.

THE DREADNOUGHT SEAMEN'S HOSPITAL SOCIETY.

We have once more to notice the annual report of the Dreadnought Seamen's Hospital Society, Greenwich; and it is satisfactory to be able to record that, although the past year has been one of great commercial depression, affecting more or less directly the incomes of the great majority of the benevolent, the funds of the Society have suffered but slightly. The amount received from annual subscriptions is only £350 less than in the preceding year; but the Committee are not unnaturally apprehensive that the failures of the City of Glasgow, West of England, and Cornish Banks may still further affect their income, since Scotland and the West of England have hitherto largely contributed to the support of the Society; and they therefore urgently appeal to the public to strengthen their hands by increased donations, so that a charity which has now been doing good work for fifty-eight years may not be crippled for want of the necessary funds. The Committee are most anxious to impress upon the public the fact that the Society receives no pecuniary support from the Government. Since the abolition of the floating hulk, so long moored off Greenwich, the Government have allowed the Society to occupy a wing of Greenwich Hospital, but the whole of their income is derived from the charitable support of the benevolent. Since the opening of the Hospital in 1821, 200,000 seamen have been relieved in its wards, comprising men of all nationalities, and it is therefore not surprising that subscriptions are forwarded to it from many foreign countries. The control and management of the charity are deserving of all praise, and certainly entitle it to that consideration which we do not doubt it will receive from the benevolent public of all lands and denominations.

A HOSPITAL FOR BRITISH KAFFRARIA.

Elsewhere in our pages will be found an appeal which we commend to the consideration of those of our readers who can spare a little to help a former brother-practitioner in a good work. There must still be amongst us not a few men who remember Dr. Henry Callaway, who was some forty years ago a student at St. Bartholomew's Hospital, and afterwards, in 1833, graduated as M.D. at Aberdeen. He gave up the practice of medicine twenty-five years ago, and went out as an ordained missionary to Natal, where he laboured diligently and most successfully amongst the natives, until, in 1873, he was summoned home, in order to be created Bishop of St. John's, Kaffraria. He has been steadily laying the foundations for educational and industrial work amongst the colonists and native tribes throughout the diocese, and he now sees his way to put up at his central station a small hospital, which has been one of his main objects from the first, if a small fund of £500 collected for the purpose, and now by accumulated interest amounting to between £800 and £900, can be further increased to £1200. The hospital has become an urgent need, and a medical man is on the point of joining him, with whose help Bishop Callaway trusts to make it a great benefit to the colony.

REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA.

The Annual Report for 1877 is the fourteenth which has been published, and it may worthily be distinguished by the fact that the sanitary history of the European Army of India contained in it is more satisfactory than that of any year of which the statistics are on record. This circumstance is the more noteworthy since famine and disease were wide-spread over the South of India, and, in spite of all the efforts made to counteract its effects, the sickness and mortality among the native population were very great; but among British soldiers, even in those parts of the country which suffered most, the results showed an improvement on previous years. In proof of this statement it is shown that in a total force of 57,260 men the admissions to hospital were at the rate of 1257, and the deaths only 12·71 per 1000 of the average strength. Not only do the results compare favourably with the averages of the five years 1871 to 1875, but what is considered deserving of special notice is that the admission-rate and death-rate are the lowest which have yet been attained. The rate of invaliding was somewhat higher than that of 1876, when it reached a minimum, but even then was only a fraction in excess of the total loss of that year. If this satisfactory state of things can be maintained, it will afford a most convincing proof that the excessive mortality of India is, in some degree, amenable to strict sanitary supervision.

The chief diseases, in the order in which they contributed to the cases of sickness in each of the three Presidencies, stand as follows:—

Admissions into Hospital per 1000.

Bengal.		Madras.		Bombay.	
1. Malarial Fevers	408	1. Venereal Diseases	231	1. Malarial Fevers	491
2. Venereal Diseases	202	2. Malarial Fevers	218	2. Venereal Diseases	205
3. Wounds and Accidents	104	3. Abscess and Ulcer	101	3. Wounds and Accidents	110
4. Abscess and Ulcer	80	4. Wounds and Accidents	88	4. Abscess and Ulcer	95
5. Respiratory Diseases	73	5. Dysentery	73	5. Respiratory Diseases	64
6. Rheumatism	60	6. Diarrhœa	68	6. Diarrhœa	54
7. Diarrhœa	43	7. Hepatitis	61	7. Rheumatism	47
8. Hepatitis	40	8. Respiratory Diseases	50	8. Hepatitis	33
9. Dysentery	20	9. Rheumatism	33	9. Dysentery	23
10. Eye Diseases	14	10. Eye Diseases	19	10. Eye Diseases	17
Total of the Ten	1,044	Total of the Ten	947	Total of the Ten	1,145
Total from all causes	1,251	Total from all causes	1,177	Total from all causes	1,365

From the foregoing it will be seen that in all three Presidencies the same diseases are the ten chief forms of sickness, with slight variation in the order in which they stand. Malarial fevers, which head the list in both Bengal and Bombay, are replaced at the top of the list in Madras by venereal diseases. Respiratory diseases and rheumatism, which take the fifth and sixth places in Bengal, are eighth

and ninth in Madras; whereas, dysentery and hepatitis, which come fifth and seventh in Madras, come ninth and eighth in Bengal, and occupy the same position in Bombay. The arrangements of the diseases in all three Presidencies generally, the Report observes, repeats in a remarkable manner the experience of former years.

Attention is directed to the extent of sickness and mortality at individual stations; thus, of the fifty-nine stations occupied in the Bengal Presidency, twenty-three return an admission-rate of less than 1000, four a rate of over 2000, and the remainder a rate fluctuating between the two extremes. The four with excessive sickness are Barrackpore, Benares, Meean Meer, and Attock. In all of them fevers were the main cause of admissions. Of the thirty-six stations of Madras and Bombay, only eight return less than 1000 cases of sickness among every 1000 men, and in only two instances does the rate exceed 2000; the exceptions are Baroda, where it stood at 2194, and the town of Bombay, where it equalled 2704, the highest among all the stations of India during the year 1877. Of fevers alone the cases here equalled 1846. At twenty-one of the Bengal stations the mortality was under 10, and in only three—Benares, Agra, and Lahore—did it exceed 20. In eight of the stations of the other two Presidencies the death-rate was under 10, and in seven it exceeded 20, the maximum (30·30) having occurred at Ahmedabad—the equivalent of six deaths among 198 men.

It is noticeable that only 44 cases of small-pox were treated during the year, and of these 21 occurred in Bengal, 5 in Madras, and 18 in Bombay. The one fatal case of this disease occurred in Bengal, causing a death-rate of 0·03 for that Presidency, a lower ratio than that of any year except 1876, when the column for deaths from small-pox was blank. It is again shown that enteric fever is in the main a disease of young soldiers new to India. During 1877, 283 cases were treated throughout India, of which 92, or 39 per cent., were fatal; 28 were in men in their first, and 20 in their second year's service, 9 occurred in the third year, and 14 in the fourth; the remainder took place between the fourth and tenth years of service. As regards age, 47 of the 92 were under twenty-five, 31 between twenty-five and twenty-nine, and the rest at more advanced periods of life. It is not, however, enteric fever only which produces an excessive rate of mortality amongst European regiments during their first year of Indian service, although every care is taken by the authorities to select, as far as possible, the healthiest stations for new-comers. The following return will show that it is impossible to escape the penalty which must be paid during the period of acclimatisation:—

Ratio per 1000 *of Strength.*

		Admissions.	Daily Sick.	Total Deaths.
1876.	Army generally .	1,361	56	15·32
	New Regiments .	1,444	63	26·72
1877.	Army generally .	1,257	55	12,71
	New Regiments .	1,371	62	15·27

It must also be remembered that the results here shown are made to appear more favourable to the new regiments than they really are, from two causes: first, because these regiments are included in the Army as a whole, since it would take much time and labour to separate them; and secondly, because many of the young and most weakly men of the new regiments find their way immediately after they arrive in the country to hill depôts, and are thus left out of the calculation. In 1877 it was ascertained that this number amounted to about 300; if these were taken, and if the other element of error were eliminated, the effects of the first year's residence in India would be found to be still more marked.

In addition to the foregoing remarks upon the sanitary condition of the European Army of India, Dr. Cunningham, the Sanitary Commissioner, furnishes similar reports on the Native Army and the Gaols of India, together with vital statistics of the general population of the country, and an account of the sanitary works, civil and military, undertaken during the period to which the Report refers; and, in the shape of appendices to the volume, Dr. Douglas Cunningham and Dr. T. R. Lewis, special assistants to the Sanitary Commissioner, contribute—the former a paper "On Certain Effects of Starvation on Vegetable and Animal Tissues," and the latter one "On the Microscopic Organisms found in the Blood of Man and Animals, and their Relation to Disease."

FROM ABROAD.

"Gunshot Quarantines in Yellow Fever."

Under the above designation (the origin and signification of which appellation, however, he does not explain) a correspondent of the *Boston Medical Journal* (March 6) gives an account of the energetic manner in which quarantine was enforced by the population menaced by an advent of yellow fever. Whatever difference of opinion may exist among medical men upon the subject of the contagiousness of the disease, none whatever prevailed amongst the inhabitants of these districts.

"But few of the readers of the *Journal* can have any definite idea of the conditions that led to the establishment, or of the consequences attending the enforcement, of this means of self-protection, which was resorted to by so many local committees in the absence of any central authority either for instituting or restraining such measures. The state of alarm and panic that prevailed through the South-West as the epidemic increased in violence and invaded many points that had previously known it only by tradition, and the popular belief in the marked contagiousness of the disease, resulted in producing a state of feeling that in many places seemed to have annulled all the claims of humanity, or even of kindred and family ties. In many cases the small towns quarantined against the larger ones where the disease prevailed, and refused to allow the trains to stop, or at least to permit the passengers to leave them, the depôt platforms being patrolled by armed guards, whose *mot d'ordre* was 'Move on!' As about the same order of things existed at all the stations on some lines of railroad, baggage and freight-cars, filled with refugees who could not escape to the North or West, were often detached on side tracks, where they served as a shelter for the inmates for days at a time. If a case of suspicious sickness occurred among the unfortunate refugees, they were ordered to move on, under the penalty of having the cars burned. Many persons travelled long distances, on foot or horseback, through woods and swamps, making long *détours* around the quarantined towns, to reach points of rest and safety. Refugees taken sick in the cars were often forcibly expelled, and left exposed on railway platforms to the chance mercies of any good Samaritan whose sense of humanity overcame his fears. Neighbours quarantined against each other when any exposure to contagion had occurred. If an absent member of a family returned from an infected point, non-intercourse was established by the whole neighbourhood for a week or two. In most of the towns the local police force was supplemented by details of the citizens, who mounted guard by day and night, and prevented the entrance of any person to the town, save under such regulations as they saw fit to establish."

The writer quotes the personal experience of one of these refugees, who, with his wife and six children, fled from Memphis. Although all of them were quite well, they met with constant impediments, being forcibly detained for days or weeks, and prevented entering places which lay on their route, while food was obtained with such difficulty that at one time they subsisted mainly on green water-melons, "gathered unobserved." Driven into swamps and woods, and having come one day on a lone house where they were hospitably received and fed, the people of the surrounding country immediately insisted on their expulsion on pain of having the house burned over their heads. Still, the sufferer from these inhumanities almost justifies their perpetration.

"I have given you," he says, "a plain recital of an experience with the 'gunshot quarantine,' similar to that of thousands, but with many it was far more bitter. I can now review it calmly, and laugh at some of the incidents of travel and *travail*; but it was no laughing matter then. I must now frankly admit that a strict, rigid quarantine saved Arkansas from yellow fever; therefore, I do not blame the people or harbour resentment for what I then thought acts of barbarism and selfishness. But they should have provided shelter and the necessaries of life for the refugees; and I am informed that they did the best their means permitted later in the epidemic. Since my return, I have conversed with many citizens of our own and adjoining counties, who are

unanimous in their convictions that, were the fever to again appear, rather than allow refugees to enter their neighbourhoods, tracks would be torn up, bridges destroyed, and a state of affairs inaugurated that sickens one to contemplate, as the fact is generally cited that the places that enforced rigid quarantine escaped, while those whose hospitable doors were opened, unfortunately suffered severely."

Confirmatory of the above opinions, the correspondent of the *Journal* observes:—"Personal observation during the epidemic, and extended official intercourse with the people of the districts liable to infection with yellow fever, enable me to testify to the state of alarm and panic that prevailed, and to the experience here detailed as being fairly illustrative of the sufferings of thousands of flying refugees, and also to the fact that on the reappearance of a similar epidemic the same conditions would be repeated in a greatly exaggerated form. The experience of the past season has confirmed the popular belief in the communicability of the disease from person to person in suitable localities, and in the efficacy of keeping the contagion out of these places. Segregation of the population and isolation of the sick, combined with sanitation and disinfection, are believed by the experienced physicians of the South to be the most efficacious means of preventing the spread of yellow fever, and on the reappearance of an epidemic the first-named measures would be extensively employed; but the suffering that would attend the general institution and enforcement of these measures, unless intelligently directed, with proper means provided for the sick and the well held under observation, will be too apparent to require further comment. Proper legislation on the part of the general Government and the States interested is imperatively required, to prevent the recurrence of the widespread distress and suffering that prevailed during the past season."

The French Medical Association.

This body held its annual meeting, which was numerously attended, under the presidency of Prof. Henri Roger, on April 20 and 21. The objects of the Association differ somewhat from those of the British Medical Association, inasmuch as it publishes no journal and expends the funds which accrue from the annual subscriptions (12 fr.) and numerous donations and legacies in relieving distressed members of the profession and in maintaining its rights against the encroachment of charlatans and other unauthorised persons. For the present year it has 57 life pensioners—viz., 6 for 600 fr., 5 for 500 fr., 10 for 400 fr., and 36 for 300 fr.—being a total of 20,900 fr. Besides these sums, much is expended either by the central or local societies in relieving distress temporarily, 31,338 fr. having been expended last year in donations to sixty-nine widows or children of members, to members, and to practitioners not belonging to the Association. In the address of M. Amédée Latour, who has been the General Secretary from the time of the foundation of the Association (now twenty years ago), he pays a warm tribute to the memory of Prof. Tardieu, its late President, who, we are sorry to find, died in such indifferent circumstances that the Association contributed 1000 fr. towards the expenses of his funeral, and has voted an annual donation of 1200 fr. to his widow. In this address he narrates the failure of the attempt which has been made to get the Association declared of "public utility," being equivalent to the granting of a royal charter with us, and enabling it to sue and to accept bequests of immovable property. To this the Conseil d'Etat was determinately opposed, declaring that instead of being a mere charitable society it was a federative body composed of ninety local societies, each with its judiciary council, which might, if so authorised, become aggressive against the interests of the public, and constitute in a disguised form one of those corporations that had been abolished by the Revolution. Another point referred to was the preparation of a Bill for the reorganisation of medical education and of the profession, which had been suggested to the Association by M. Bardoux, Minister of Public Instruction, as a proper measure for it to undertake. Unfortunately, M. Bardoux, who seems to have manifested, in all matters of professional education and interest, an intelligence and goodwill not often met with in his predecessors, and certainly not likely to be found in the present fiery holder of the office, was swept away in one of the constant ministerial changes that have occurred, before he could carry scarcely any of his good intentions into effect. The matter therefore dropped after the Association had taken a good deal of trouble about it. With regard to additional legislation in the shape of severer laws for the suppression of quackery and illegal practice, from which the profession suffers much in the rural districts of France, M. Latour has little hope of any good arising from it.

FOREIGN AND COLONIAL CORRESPONDENCE.

AMERICA.

Philadelphia.

Infected Rags—The Tenement-Houses of New York: Denseness of their Population; Death-Rate—The Medico-Legal Society of New York on the Need of Protection against Premature Burial, and of a Reliable, Simple Death-Test—The American Medical Association—Improvement of Medical Education—Testimonial to Professor S. D. Gross—Maisch and Stille's "National Dispensatory."

Much valuable information is imparted to the general public in the newspapers of the day, during or after visitations of epidemics, on points which would otherwise never form a link in the chain of reflection of the masses. A great deal of interest has, for instance, been recently excited on the subject of infected rags, or rather on the assumed probability that rags which might have become infected in plague-stricken countries could find their way as vehicles of disease into the ports of this country. But for such an awakening of the general mind in this direction, we would never have known that foreign rags to the value of nearly ten million dollars are annually received at the port of New York alone, most of which come from Russia and Mediterranean ports. The quarantining of rags enters, then, as a new element of discussion in view of the prevalence of the Russian pestilence, and the capability of transmission of disease by them becomes a serious question. The health authorities believe that those coming from the infected parts of Russia should be disinfected, and the poison eliminated, before they are permitted to be exposed for commercial purposes. It has been stated that the first case of the plague in Russia originated from a shawl which a soldier brought from a battle-field in Turkey, and gave to his sweetheart. It is said that the infected rags are compressed by steam power before shipment, but it is impossible to say what effect this heat has in destroying their power of communicating contagion. A certain amount of protection to the port at which they are received is derived from the fact that the consignee is obliged to file a bond for two hundred dollars, before the cargo is unloaded, pledging himself not to break the bulk of any of the bales so long as the same shall remain within the limits of the city or county. This protection is only partial, however, for clothing brought by seafaring persons or by emigrants would be more generally diffused at the immediate point. Thorough disinfection of persons and clothing is therefore highly desirable.

I have on more than one occasion alluded to the evils of the tenement system of living in New York, almost unknown in Philadelphia, by which the health of hundreds of thousands of people are placed in daily jeopardy. A public meeting has just been held in that city to determine what may be the wisest measures of relief, looking to the amelioration of the insanitary conditions attendant upon this mode of life. Agitation alone will stir up the public to a just appreciation of its enormities. It was stated, for example, that 500,000 people in New York lived in these tenement-houses, of small or large degree, in which the seeds of poverty, filth, and vice progress to full development. A member of the State Charities Aid Association reported the results of a personal investigation. He described, as an average specimen of the tenement-houses, one that was six storeys high, with a front of twenty-five feet, and a depth of seventy-five feet. The ground floor is a lager-beer saloon, in which, at ten o'clock in the morning, may be found nine men and two women beginning the day's orgies. The hallways, to which lead stairs about three feet wide, are badly lighted, so as to be almost wholly obscured by the filth and darkness, and midnight and midday are alike. There are four suites of rooms for tenants on each floor; the inner

rooms know neither draught, fresh air, nor light. In one of these suites lives a widow, who lets out her rooms to female lodgers at ten cents a night. In this house are sixty-six rooms, of which twenty-one are tolerable, twenty-two unhealthy, and twenty-three poisonous. The best elements of the working-classes are compelled to associate with the most degraded of criminals. Near this house is another, in which, in one room, live three men and three women in open violation of the commonest laws of nature; while in the next room dwell nine rag-pickers, with rags, garbage, and filth as their chief articles of furniture. In another building close at hand is a room, twelve by fourteen feet, from which a space of six feet is partitioned off, and this space again subdivided into two rooms. Here sleep four persons.

There are 20,000 such dens in New York city, and yet a stranger, passing along its fine streets and main avenues, would find so much that is fair to look upon, that thoughts of the evils so near at hand would scarcely enter his mind. Seven thousand of these buildings have been erected within the past ten years, and the tenants average more than a hundred souls to each building. In the same period of time, $82,000,000 are said to have been invested in such property. In some blocks of New York city the crowding of these houses has given a population of 750 persons to the acre. In London's most densely populated neighbourhoods there are 175,000 people to the square mile, while in parts of one ward in New York there are 290,000 to the square mile. Health regulations must inevitably be disregarded here: houses badly drained, cleanliness rendered impossible, ashes and garbage improperly disposed of, provisions for even the common decencies of mankind almost unprovided for. But what else can these overcrowded tenantry do? Where can they go, in a city like New York,—unlike Philadelphia—where there are no cheap residences for the poor, no apartment-houses in healthy neighbourhoods, where the labouring classes can live? As has been remarked by a leading paper, they are compelled to pay in such dens rents that would secure them a decent home in other cities; they cannot find houses at rents within their means; they must enter these tenement-houses, or leave the city. Of the deaths last year, 70 per cent. occurred in tenement-houses, while only 40 per cent. of the population is found in such dwellings. The deaths in New York last year exceeded those in Philadelphia, where there are better dwellings for the poor, 25 per cent. in the ratio of population. Of the little ones born and nursed in the foul air of the tenement-houses, 90 per cent. die under five years of age. Of the whole number of deaths in the city, 46 per cent. are tenement-house children, and their corpses number 10 per cent. of the whole child-population of the city. Over 12,000 children under five years of age died in those houses last year. The evils of the system cannot be told, but the remedy does not seem so easy, unless with the improvement by rapid transit—many of the streets of New York being now occupied by elevated, clean roads—it becomes a possibility of the near future that the poorer classes can be provided with other homes, and all these buildings now unfit for human habitation be swept out of existence.

The Medico-Legal Society of New York has recently occupied itself with a discussion of the necessity of legal provisions to prevent the premature interment of those who are apparently dead. The result will doubtless be the passage of a law providing for the verification of every case of supposed death occurring there. Syncope is so often mistaken for real death, and cases are so frequently noted in the newspapers of the day in which death has been apparent but not real, that some legal cognisance or supervision seems to be necessary to guard against the burial of the living. In America, unlike the countries of continental Europe, no protection is afforded by the statutes against the possibility of a live person being buried. As was remarked by Dr. Wooster Beach, for many years Assistant-Coroner of New York, every person who chooses to practise medicine or any form of the healing art, and who asserts himself to be a physician, is recognised by the law as such. His certificate that a person is dead is held by the Board of Health to be proof that such is the case, and no official inquiry is made unless a necessity for it arises. The Board of Health does not even require that the "physician" shall certify that he has seen the dead body; but he may, if he sees fit, accept the statement of any messenger that one of his patients is dead, and he may on this information issue his certificate. The person is thereupon buried. It will thus be seen that there is at present but little protection for the public against the terrible fate of premature burial, and that the path for the concealment of crime is left wide open. As was sensibly remarked in the report of this meeting, no police regulations or vigilance, no love or tender care, can ward off the possibility of an error in a question in which scientists are sometimes at fault. The files of the newspapers of the day contain occasional stories of the removal of coffins, in which the condition of the inmates' bones or dress indicated almost certainly that consciousness had returned after interment. It is but a few days since that I read the well-authenticated account of the narrow escape of a lady who gave signs of life at the very moment that the hearse was waiting at the door, and the undertaker was preparing to close the coffin lid. The number of cases of sudden death seems to me to warrant an inquiry as to the exact status of each case, as it is possible that suspended animation may occasionally be mistaken for real death, and valuable lives be sacrificed by the error. It will be remembered that in France and Germany this matter has received much greater attention from both the medical and legal professions. In France especially prizes have from time to time been offered for the best papers on the subject, and the result has been a comparison and classification of cases, with treatises on the best methods of determining the real presence of death. As long ago as 1837 a prize of 1500 francs was offered by a Professor of the University of Rome, for the best essay on suspended animation, and won by M. Bouchut. The Marquis d'Ouche left a legacy of 20,000 francs to be devoted to prizes for the best test of death that could be applied readily by people who were not educated in medicine; and a legacy of 500 francs per annum was left to the French Academy of Sciences to establish a prize of 2500 francs to be paid every five years for the best test of death. In Germany public interest was awakened, and a hospital established, through the efforts of Hufeland. When we reflect how many causes may operate to produce apparent death, such as syncope, hysteria, apoplexy, narcotism, concussion of the brain, wounds, drunkenness, anæsthesia, etc., we may naturally wonder at the slight attention yet paid to the subject in this country. Most of the cases on record are German and French; but a sufficient number has been accumulated in the United States to justify legal interference and protection.

Dr. Beach, whose remarks on this important subject have formed the basis of my own allusion to it, speaks in terms of the strongest disapproval of the prevalent custom of handing the body of a dead person over to the undertaker as soon as life is supposed to have left the body. In many cases only a superficial examination is made; and when the patient is declared dead—it may be by an ignorant nurse or quack physician—the remains are washed and placed on ice. The custom is almost universal; the process is all over in about an hour; and not unfrequently in less than two hours after a man has been talking with his family his body is placed on ice. If the man should have merely lost consciousness and the appearance of life, he is thus deprived of all chance of reviving; and his tissues being frozen by the direct contact with the ice, life is lost when it might have been recovered. The haste with which post-mortem examinations are sometimes practised in cases of sudden death, excited apprehension of a grave character as to the possibilities of suspended animation rather than of veritable death. A physician from another State died suddenly in this city a few weeks since, about eight o'clock in the morning, and at four o'clock that afternoon was subjected to an autopsy at the hands of the coroner's physician. The case was, it is presumed, one of undoubted death; but the suggestion of possibilities in other cases is not pleasant to reflect upon. It seems very desirable that some test shall be devised, which the ignorant or unprofessional could apply with unerring certainty; but this seems impractible with our present knowledge on the subject. Even if a skilled officer of the law should be appointed, whose decision should be considered final, the lingering thought might still find a resting place in the minds of others, that life was only suspended, but not extinct. Putrefaction alone seems to be the crucial test, and in doubtful cases should be persistently waited for.

The next annual meeting of the American Medical Association will take place on Tuesday, May 6, at Atlanta, Georgia. It is not likely to be so fully attended as those

recently held at more accessible points, but it is the policy and pleasure of the Association to hold its sessions in varying localities, and it is some time since it last met in the South. A convention of medical colleges will take place a day or two before that time, in order to adopt some uniform system of instruction more in harmony with the requirements of the age. It is to be presumed that the result of their deliberations will be a determination to join the party of medical progress by making it obligatory on the student to attend three courses of instruction instead of two. Strange to say, while everything else has made such wonderful advances, the old system of instruction which hurried the student through to his destination—the medical degree—should have remained unchanged, except recently in one or two schools, through a whole century. The American Academy of Medicine hopes by its influence to establish in time the additional desideratum of a good preliminary education as a requirement of everyone who undertakes the study of medicine.

Professor Samuel D. Gross is about to receive the well-deserved honour of a professional tribute on April 10, the occasion being the celebration of his entering upon the fifty-second year of his professional life. The public dinner tendered to him will be an ovation to one who adorns the paths of science and skill in which he has so long laboured, and will be another testimonial to be added to the hundreds of others which he has received as evidences of the admiration and affection in which he is held by his medical brethren. Professor Gross was born on July 8, 1805, and graduated at the Jefferson Medical College, Philadelphia, in 1828.

Henry C. Lea, of Philadelphia, has just published the "National Dispensatory," by Professors John M. Maisch (Secretary of the American Pharmaceutical Association) and Alfred Stillé (late Professor of Practice of Medicine in the University of Pennsylvania). The work is in one large volume of over 1600 pages, and has already attained, during the two weeks that have elapsed since its issue, an unprecedented sale. The reputation of its authors is such as to establish at once the popularity of this new Dispensatory, for Professor Maisch is recognised, both at home and abroad, as the first authority on matters of pharmaceutical science and art in the United States, and Professor Stillé brings to the work the rich fruits of ripe culture and experience as practitioner and author. The "United States Dispensatory" of Wood and Bache was for a long series of years the standard authority on medico-pharmaceutical matters, but Professor Bache has been dead for some time, and Professor G. B. Wood has retired from all active labour on account of age and infirmity, and it seemed as if a favourable opportunity was at hand for the introduction of a new work which would be fully up to the requirements of the day of physicians and pharmacists alike.

PROGRESS OF POPULATION IN FRANCE AND PRUSSIA.—A communication made to the Académie des Sciences on the comparative movement of population in France and Prussia supplies the following figures. In Prussia there result from 100 marriages 460 children, while in France there are about 300. The number of births per 100 individuals of the total population is in Prussia 3·98, and only 2·55 in France. The annual excess of births over deaths per million inhabitants is 13,000 in Prussia, and 2400 in France. It results from the above figures that doubling the population requires in France nearly 170 years, while this is effected in Prussia in 42 years. —*Gas. Hebd.*, May 2.

AT the annual meeting of the subscribers to the Hospital for Women, Soho-square, recently held under the presidency of the Earl of Shaftesbury, it was announced that the Prince of Wales has consented to accept the office of patron. In answer to an appeal put forward by the noble chairman, upwards of £2000 had been received, which had enabled the Committee to fill many of the beds which had been standing empty, and to reduce the mortgage debt of the establishment. The report which was submitted also called attention to the fact that the Committee had provided a wing for a superior grade of patients able and willing to pay for their own support, and the two classes, the necessitous and the paying patients, were now treated under one roof. The Princess Christian, who is President of the Ladies' Committee, and takes a warm interest in the charity, was unable to attend the meeting.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

MAY.

OPEN SPACES IN LIVERPOOL—THE CORONER'S BILL—EXPOSURE OF BAD MEAT—COCOA-HOUSES—SUFFOCATION FROM OVERCROWDING—DISCREPANCIES IN MORTALITY RETURNS.

ON the 31st ult. a deputation from the Medical Institution, consisting of the President, Dr. A. T. H. Waters, Drs. Cameron, W. Carter, and Robertson, and Messrs. Manifold, Newton, and E. A. Browne, the hon. secretary, waited by appointment on the Improvement Committee of the Town Council, to impress upon them the desirability of retaining the open space known as Kensington-fields as a recreation ground and breathing space for the public. Few, if any, towns in the kingdom are so deficient as Liverpool in open squares and recreation grounds accessible to the great masses of its population. In 1841 the number of houses in the town was 45,385, with a population of 286,487. Since that time there have been built on the same area of 5210 acres 59,000 additional houses, the population having increased to considerably over 500,000. Allowing that 10,000 houses have been pulled down for various purposes during the thirty-eight years, there are now more than double as many houses and nearly double as many people as were found in the Liverpool of 1841, nearly all the open spaces having disappeared. Of the municipal area of 5210 acres, only 750 are unbuilt upon, and of these 244 are said to be occupied by docks. In such facts as these, as well as in the high rate of mortality and dense population of the town, the deputation had good reason for urging the Committee to retain the fields as an unoccupied space, even though such retention should involve a considerable outlay. They pointed out that, in their opinion, it was not desirable to lay the ground out as a park, but simply to keep it as it is at present—a field of smooth turf, where cricket and other games could be played, and where the densely packed population of the neighbouring streets could find fresh air.

A memorial signed by about 200 members of the medical profession here has been presented to the borough members, praying them to oppose the passing of the Coroner's Bill in its present form. The ground of complaint is the injustice of requiring medical officers of charitable institutions to give evidence at inquests, and to make post-mortem examinations without fee. Such evidence, it is held, is for the public good, and not for the good of the charity, which, indeed, is a loser by the frequent absence of its officers from their legitimate duties in order to attend the Coroner's Courts.

The mania for adulteration and falsification of food stuffs still prevails here. The addition of from 10 to 40 per cent. of water to milk, and from 40 to 50 per cent. of very cheap, though in themselves harmless, ingredients to "genuine" cocoa are among the commoner incidents. Happily, a little less common is the ingenious concealment of defects by the method of dressing, and the wholesale exposure for sale, of the carcases of animals totally unfit for human food. Mr. Henry Wright, a Birkenhead butcher, recently entered upon this line of business, but the unwholesome nature of the carcases exposed for sale was soon detected, and a fine of £50, exclusive of costs, was imposed upon the enterprising butcher.

On the 2nd inst. the thirty-sixth of the "British Workman" public-houses was opened in Liverpool. All of these houses are doing a good business in the sale of cocoa, coffee, and other wholesome non-intoxicating refreshments to working-men. They have admirably furnished rooms, the accommodation in which, for the benefit of tired working people of both sexes, is far superior to that provided in the spirit-selling public-houses. It is hoped and believed that these institutions will gradually develope a beneficial change in the habits of large classes of the people. To show how much needed this is, it is only necessary to mention an incident that occurred on the day preceding the opening ceremony. A man named O'Neil, a marble polisher, and able regularly to earn 31s. a week, was in the habit of seeking relief from the monotony of his employment in the more exciting pursuits of getting wildly drunk, and unmercifully beating his wife. Distractions of this kind reduced him to the necessity, from want of means, of living in two rooms,

and of sleeping together with his wife and three children in one miserable bed, the three remaining children of a family of eight being accommodated with a bed on the floor of the day-room. On the morning of the 1st inst. the youngest of the occupants of the bed which contained the father, mother, and three children (an infant of only four months old) was, not unnaturally, found suffocated. Events such as these are, however, unhappily, quite common in Liverpool.

An extraordinary reason was given by the Medical Officer of Health at the last meeting of the Health Committee for the apparent great fluctuations in the death-rate lately, which, if correct, shows to what astonishing eccentricities the public functionaries of some departments are liable. In three weeks the rates per 1000 were 23·9, 31·5, and 23·5, and in explanation it was said that the differences were partly attributable to the fact that the deaths which took place in public institutions were not registered in the week during which Good Friday fell, but in the week following, the mortality of which was thus made to appear much higher than it ought to be.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 2.

W. S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

THE following were elected Fellows:—Sir Joseph Fayrer, Drs. George C. McKeogh, George E. Moore, R. R. Stilwell, Messrs. J. Knowsley Thornton, Alban Doran, Charles L. Eversbed, T. W. H. Garstang, E. W. Tait, William B. Willans.

DOUBLE MONSTER.

Dr. GODSON showed a dissection of the conjoined twins which he had exhibited in July last. The distribution of the viscera was very remarkable.

POCKET GYNÆCOLOGICAL CASE.

Dr. GODSON showed a set of instruments, comprising speculum forceps, puncturing-lancets, caustic-holder, uterine sound, and Playfair's probe, all of which were contained within an ordinary cylindrical speculum, and could be carried in the pocket. This convenient case of instruments was manufactured for him by Messrs. Arnold and Son.

MIDWIFERY FORCEPS.

Dr. BARNES showed, for Dr. Marshall of Mortlake, a new forceps of his invention, the blades of which were attached to the handles in sockets, so that they rotated in such a manner as to adapt themselves to the shape of the head. Thus a firmer grasp was afforded, and indentation was avoided. Remarks were made by Drs. Aveling, Murray, Williams, Routh, Cory, and Marshall.

REMOVAL OF OVARIES.

Dr. CHAMBERS presented two ovaries which he had removed a week since, on account of double ovarian congenital inguinal hernia. He suggested that these should be examined, and reported upon at the next meeting, when he would bring forward full particulars of the case. (Drs. Galabin and John Williams were appointed to examine them.)

DEBATE.

The PRESIDENT announced that it had been decided to have a debate at the next meeting of the Society, and that the subject which had been selected by the Council was, "On the Use of the Forceps and its Alternatives in Lingering Labour," and Dr. Robert Barnes had consented to open the discussion.

EXTRA-UTERINE PREGNANCY.

Dr. ROUTH contributed the notes of a case of tubal gestation. The patient, aged twenty-two, was admitted into the Samaritan Hospital on January 31, 1878, complaining of pain in the lower abdomen, which had commenced a month previously. The catamenia were regular and profuse, the last period terminating abruptly a few days before admission. On examination an irregular rounded swelling was found occupying the left iliac and hypogastric regions, dull on percussion. Per vaginam a large mass, about the size of a cocoa-nut, filled the whole of the pelvis, the os uteri being pushed forwards and upwards, and reached with difficulty. The tumour appeared to contain fluid, and large pulsating vessels surrounded it. It was at first believed to be a hæmatocele, but later, pregnancy was suspected from the discoloration of the genitalia. On February 18 it was tapped per rectum by the aspirator, and a pint of serous fluid was drawn off; this was followed by troublesome hæmorrhage, to arrest which a solution of iron was injected, and subsequently withdrawn by the aspirator. No bad symptoms occurred till the 21st, when rigors set in, followed by feverish excitement, and the temperature ran up to 104° Fahr. On examination, the tumour which had been emptied was found to be again distended with fluid. A membrane, proved to be decidua, had passed from the vagina. After consultation, surgical interference was negatived. Next day she died. At the autopsy a large thin clot concealed the viscera; on removing this the peritoneal cavity was found to contain a pint of fluid blood, and there were masses of clot in the cellular tissue of the iliac fossæ. A tumour almost the size of a cocoanut lay behind the uterus, extending to the right into the iliac fossa, displacing the cæcum, and backwards against the fifth lumbar vertebra. It was soft and its surface very vascular. It could be seen, even *in situ*, to be a dilatation of the right Fallopian tube. On examining the back of the tumour a small aperture was found; on opening the tumour it was seen to contain one ounce of blood, a placenta, and a fœtus of about three months' development. The umbilical cord was about four inches long and attached to the front of the cavity. The remainder of the Fallopian tube was coiled behind the uterus, in Douglas's space, under the left tube. No trace of the opening made through the rectum with the aspirator could be detected. The author then gave the details of a large number of published cases of extra-uterine fœtation, from which he drew the following conclusions:—That a discharge of blood resembling the catamenia frequently occurs, but that it varies in intensity, time, and quality; that the cases of tubal pregnancy, if diagnosed early, should not be left to nature, but should be treated by one of two proceedings—either simply tapped by the aspirator; or tapped, and subsequently a solution of morphia injected into the amnion.

The PRESIDENT inquired why the author had limited his discussion of possible methods of treatment to puncture and injection of morphia. Dr. Routh could not be ignorant of Dr. Thomas's well-known successful case in which a similar tumour was opened from the vagina by the galvano-caustic knife—a plan of treatment which seemed to him particularly valuable in such a case, inasmuch as the cautery not only obviated any risk of hæmorrhage from division of large vessels, but the sac could be thus easily emptied of its contents, leaving the placenta *in situ*, and subsequently thoroughly drained and washed out with antiseptics.

Mr. DORAN, who had made the post-mortem examination, exhibited the specimen which he had prepared from it, which showed beautifully the relation of parts. He remarked that the rent, whence proceeded the hæmorrhage, was situate on the upper and posterior aspect of the cyst, and had gastrotomy been performed on the advent of the dangerous symptoms, the cyst could have been easily reached from above, and the laceration detected; the fœtus might have been removed, and the bleeding vessels secured by the cautery.

Dr. BANTOCK believed that gastrotomy offered the best hope of relief in cases of tubal pregnancy. If the fœtus happen to be in the outer part of the tube, the sac might even be pediculated, and the pedicle could be ligatured or treated like that of an ovarian tumour. If near the uterine end, the sac could be opened, the fœtus could be removed, and complete drainage could be effected after securing the edges of the opening to the lips of the abdominal wound, with every probability of success.

Dr. BARNES considered the operation from below of greater value, being more accessible.

Dr. GODSON said that tapping per rectum incurred the risk of fetid gases passing from the bowel into the cyst, and he related the case of a patient upon whom he had operated for retention of menstrual fluid owing to an imperforate hymen, in which this had occurred.

Dr. GALABIN remarked that, with reference to the inference to be drawn from Dr. Routh's case as to the question of treatment, it was of interest to recall the statistics of the late

Dr. Parry, who in his monograph had collected a far larger number of cases than any other author. From a review of these he drew the conclusion that, although the treatment of simple puncture might seem at first sight to be so promising and so innocuous, yet it was more dangerous than either leaving the case to nature, or evacuating the cyst by a more free opening, a large majority of recorded cases having ended fatally.

Dr. Rogers, from consideration of this and other cases, advocated gastrotomy and removing the fœtus without the placenta, putting a drainage-tube into the sac, and treating it in the usual way; or if there were a pedicle and no strong adhesions, this might be ligatured, and the whole ovum removed.

Dr. Chambers thought that, when Dr. Routh was called to his patient and found her collapsed, he might reasonably, after she had somewhat recovered, have entertained gastrotomy as a justifiable alternative.

Dr. Routh replied, and the meeting adjourned.

CLINICAL SOCIETY OF LONDON.

Friday, April 18.

Dr. Greenhow, President, in the Chair.

Case of Rare Vaso-Motor Disturbance in the Leg.

Dr. Sturge, in a paper giving notes of this case, said that the patient, a man aged twenty-nine, began to have attacks of redness and swelling, with a feeling of heat, in the right great toe about four years ago. They came on after he had been standing some time, lasted for two or three hours, but went off more quickly if the foot were kept elevated; they increased in severity, and eventually reached the thigh and buttock. Eighteen months after the first onset the burning pain felt when the foot was put to the ground obliged the patient to give up work. The left foot and leg have begun to feel hot during the last six months. The attacks are brought on by hanging the leg down, sitting near the fire, wrapping it up warmly, or by much excitement. When first admitted to the Royal Free Hospital he rarely passed twenty-four hours without one. For more than two years the right leg has been wasted. The circumference of the right thigh was one inch and three quarters less than that of the left; that of the right calf an inch and a quarter less. There was marked increase in the reflex irritability of the muscles. Their electrical reaction was altered; there was great diminution of reaction to both constant and induced currents when the rheophores were applied to the muscles, but when to the nerves both currents produced good reaction. Now, in atrophy from disease of the spinal cord there would be loss of reaction to the induced current in both positions, and to the constant and induced current in both positions, and to the constant current when the rheophores were applied to the nerves; good, or even increased reaction when they were applied to the muscles. The surface temperature, taken by Stewart's surface thermometer, was below 75° (the lowest point on the scale); in the attacks it was about 93°, and always lower on the dorsum than on the sole. Dr. Sturge remarked that this belonged to a class of cases of which a description was published by Dr. Weir Mitchell in the *American Journal of the Medical Sciences* for July, 1878. Dr. Mitchell had seen five cases, and quoted six from other sources. He states that the disease nearly always occurs in men, following some constitutional disease, or after much walking. It begins usually in the ball of the foot, and gradually extends to the rest of the limb. The course of the disease described by Dr. Mitchell much resembles that above given. Two of his cases were associated with spinal symptoms, such as weakness of the legs, atrophy of muscles, etc. But Dr. Sturge pointed out that in this case the atrophy was shown by the electrical reaction to depend on a local rather than on a spinal cause. He suggested that the disease had been brought on by the prolonged over-excitation of the vaso-motor centre, resulting from long exposure of the feet and legs to wet and cold, and that the condition was thus allied to the irregular action excited in other centres from over-work, as in the case of writers' cramp.

Dr. Stephen Mackenzie said that he had observed a similar case. The patient, an engine-driver, was exposed to great variations of temperature, in consequence of his occupation; his feet were chilled, and his lower limbs and abdomen heated. Two years and a half ago he began to complain of pain in the feet on walking, and this increased to such a degree as to prevent his walking for more than half an hour; he was then compelled to rest with his feet raised. The muscles were wasted, but there was good tendon reflex. A difference between his patient and that of Dr. Sturge was that the lower extremities did not redden much after he had been standing, though the veins were much filled; otherwise there was a strong resemblance between his condition and that of the patients described by Dr. Weir Mitchell.

Dr. Poore thought Dr. Sturge's theory of the production of such a condition by repeated stimulation of the vaso-motor system both interesting and probable. In writers' cramp, a disease to which he had paid some attention, it was common to meet with vaso-motor disturbances. The arms were alternately hot and cold; and another point of resemblance was that the electrical reaction of the muscles in such a case was the same as that described by Dr. Sturge; when the electrodes were placed on the muscles, neither galvanic nor faradic currents would produce contraction, though they would do so when applied over the nerves. He asked whether there was any hyperæsthesia in this case, or any signs of neuritis.

Dr. Sturge, in replying, stated that there was no hyperæsthesia, nor was there any tenderness of nerves present. Dr. Mackenzie's case appeared to him to be one of those which Dr. Mitchell distinguished, without separating them, from the severer cases.

Partial Epilepsy from Lesion of one of the Vaso-Motor Centres.

Dr. Sturge also read a paper on a case of partial epilepsy apparently due to lesion of one of the vaso-motor centres of the brain. The patient was now seven years old; the family history was good—no history of hereditary nervous diseases. There was an extensive mother's mark on the right side of the head and neck, and one patch over the left frontal and temporal region. All the parts affected on the right side were larger than on the opposite; the right eye was affected; and he read notes taken by Mr. Nettleship on the condition of this eye, from which it appeared that the palpebral fissure and the pupil on this side were larger than on the other, the sclerotic more vascular, a state of sclero-nævus. This eye was myopic, probably because of its increased size, the lens presumably being adapted for a smaller eye; the choroid and optic nerve were redder than on the other side. The epilepsy began by twitching, lasting for ten or twelve minutes, at first confined to the left side. Several such fits occurred every day, but there was at this time no loss of consciousness. Gradually the fits spread to the other side, and in eighteen months or two years the child began to lose consciousness after the attacks. The fit began with a peculiar sensation in the left palm, followed by convulsions which soon became general. The left side remained weaker than the other. This state of things was considerably improved by bromide of potassium. In order to explain his theory about this case, Dr. Sturge gave a summary of his views as to the mechanism of an epileptic convulsion, and concluded that in this case the epilepsy proceeded from and depended upon a condition of the left hemisphere, comparable to that observed in the right eye, and the skin and mucous membranes of the right side of the head.

Dr. Glover objected that the existence of a port-wine mark on the cerebral hemisphere was theoretical, and hardly worthy of discussion. Besides, there was a mark on the left side of the head, and the unilateral commencement of epilepsy was common. In reply to Mr. Heath he said he had questioned the mother on her idea of the origin of the mark, which she attributed to a fright she had experienced in her last month of pregnancy.

Mr. Gould mentioned a case of extensive port-wine mark which he had formerly observed, where there was considerable increase in bulk on the affected side. Fits were also common in this patient, but he could not describe their nature, the nævus having chiefly occupied his attention.

Mr. Furneaux Jordan said he thought that in these conditions a member or viscus might sometimes become enlarged as a result of the more vigorous circulation present; and he moreover described a case where the radius, thumb, and index were much hypertrophied, as he believed,

from this cause. It was fair to add that from some communications he had received from Mr. Hutchinson, who had also observed a similar condition, he found that Mr. Hutchinson did not agree with him as to the means by which this hypertrophy was produced.

Dr. Poore, while thanking Dr. Sturge for bringing forward this case, felt that fits were so common in children, with or without port-wine marks, that he should be unwilling to agree to Dr. Sturge's theory on the strength of this case alone. Was any such port-wine mark of the brain known to exist? He would further ask whether in the present case there was any change in the vessels of the nævus during the convulsion? and, lastly, whether the supposed affection of the brain had to any extent interfered with the growth of the opposite side of the body?

Dr. Sturge, in replying, said that he should not have ventured to suggest this explanation of his case if it had not been for the unusual extent of the nævus. It should be remembered that all the accessible parts on the right side of the head were involved, including the deeper parts of the eye. The mark did just extend over the median line, as was so common in anæsthesia of one side. Otherwise the mark on the left side of the head was unimportant. He had never observed a fit in this patient, but just after one the mark was rather darker than usual.

Compression of Iliac Arteries by Davy's Lever in Amputation at the Hip-Joint.

Mr. A. Pearce Gould read notes of a case of amputation at the hip-joint, in which the iliac arteries were compressed by Davy's lever. The patient, a man aged twenty-eight, was admitted into Westminster Hospital with advanced disease of the hip. Excision of the head of the femur, which was separated from the neck, was performed, but it afterwards became necessary to remove the limb. Mr. Gould did this by prolonging his excision-wound downwards a short distance, and then severing the thigh circularly—an oval amputation, in fact. He claimed for this method that it considerably lessened the extent of the cut surface, and the uninjured inner part of the thigh was very useful in supporting the posterior flap, and in aiding the nutrition of the flaps. He recommended it especially in cases of amputation following excision. The iliac vessels were controlled by Davy's lever passed into the rectum. There was no flow of blood during the amputation, only that lying in the severed vessels escaping; at the end of the operation the blood in the tray, mixed with serum and sawdust, measured less than three ounces. In comparing Davy's lever with Pancoast's tourniquet, which is usually employed, Mr. Gould held that it had the following advantages:—1. It disturbed the circulation less; 2. It did not interfere with the respiratory movements, nor was it interfered with by them; 3. Its use was not prevented by obesity, rigidity of abdominal walls, or the existence of abdominal tumours; 4. The pressure required was less; 5. Less liability to injury of viscera and peritoneum; 6. Greater ease and security in application; 7. Greater cheapness and durability; 8. If the lever were not at hand its place could be more easily supplied. The lever was first suggested and used by Mr. R. Davy in a young child in January, 1877; then by Mr. Gould in December, 1878; and since then by Mr. H. Marsh, Mr. Johnson Smith, Mr. Davy, and Mr. Cadge, and in every case successfully. Mr. Gould showed some deep sutures which he had employed to maintain the flaps in exact apposition; they were steel pins rivetted at one end to a flat oval disc of vulcanite; this pin is passed through the flaps up to this disc, and then a similar disc of pure black rubber is slipped down over the pin on to the other flap; by its elasticity it grips the pin. Three of these were used, and held the flaps so firmly that the patient was able to turn in bed and move his stump without assistance. The patient progressed very favourably for forty hours, but died at the end of sixty-eight hours; and at the autopsy all the veins of the left foot, leg, and thigh were found to be filled with black coagulum which reached just into the common iliac vein. There was no sign of injury of the rectum, peritoneum, or arteries.

Mr. Macnamara said it was the second time he had seen the lever used. The first time was in a child, who was very anæmic; here he thought not more than an ounce and a half of blood was lost, and the child made a good recovery. The lever, however, had some disadvantages; its length was a source of danger, and it required extreme care on the part of the assistant. The amount of damage that might be done, too, was considerable, when the force of such a lever was recollected. In one case, after death it was found impossible to introduce the lever at all, and this, of course, might sometimes happen during life. He allowed, however, that the successful instances of its use which had been brought forward inclined him to think more favourably of the method.

Mr. Marsh had used the lever in one case; there had been no difficulty in introducing it nor in controlling the vessel, and the amount of blood lost in the amputation of the limb was under one ounce, he thought. The means seemed to him very fairly successful and worthy of a trial, for there were undoubted disadvantages in the use of Lister's tourniquet, particularly if the patient happened to faint during the operation. He had had once to amputate the upper part of the thigh for a case of secondary hæmorrhage after ligature of the femoral artery, and the patient died after losing more blood than he could afford in his enfeebled state. Such a case would have been very suitably treated with the lever, which also might be used in the treatment of aneurisms of the common femoral.

Mr. Jordan thought Davy's lever would prove an effective, simple, and valuable addition to the surgical armamentarium. In the manner of removing the limb at the hip-joint which he had recommended, he thought there were several advantages: the muscles quickly contracted and the skin fell together, less surface for absorption was exposed, the vessels were divided transversely, and far from the pelvis. Only last Tuesday he had occasion to do this operation in a case where gangrene had followed a previous operation. He had removed the limb, and the lad was now fairly well, and expected to recover. With Davy's compressor, Esmarch's bandage, and his operation, he thought amputation at the hip would be far less dangerous than formerly. He would add that his operation had lately been performed by Mr. Littlewood and Mr. Beddard at the Nottingham Hospital—in both cases successfully.

Mr. Baker remarked on the thrombosis, and asked if there were any signs of injury to the veins at the seat of compression. Personally, he had found no special difficulty in amputating in the old way at the hip-joint with the help of the tourniquet. How long did Mr. Jordan's method take; and would not the shock following such a prolonged operation be greater? He could not help feeling that in this case a share in the result must be laid to the carbolic acid.

Mr. Heath observed that he had helped Mr. Swayne to amputate in the oval method in the autumn of 1866. Mr. Jordan's method appeared to be an elongation of this, and no doubt was suitable for cases of excision; but it was not adapted for those serious cases where amputation at the hip-joint was required for the removal of tumours in the upper part of the thigh. These were the fatal cases. In reply to Mr. Macnamara, he said there was often a great difference in the facility of passing an instrument in the dead and the living subjects.

Mr. Howse thought the question did not lie so much between Davy's compressor and Lister's tourniquet, as between the compressor and digital compression. In two of the cases Mr. Baker had mentioned, it was this method of compression that was practised, and no doubt it was a great strain on the muscles and fingers of the compressor. An objection to Mr. Jordan's operation was that all the old sinus tissue was left—a great disadvantage, in his opinion. He was in the habit of making a skin internal flap, which folded at right angles to the buttock flap, and allowed more easily the use of antiseptics.

Mr. Barwell had found no difficulty in treating such cases antiseptically. He used a spiral flap, and removed the limb rapidly, trusting to Lister's tourniquet, nor did he quite understand the advantages of Mr. Jordan's operation over this one.

Mr. G. Brown asked as to the cause of the thrombosis. It appeared reasonable to suppose that carbolic acid might have caused it. Pressure would have produced a one-sided thrombus.

Mr. Hulke had listened with pleasure to the discussion. He would wish, however, to say that the oval method was a favourite of Guthrie's in 1849 or 1850. He had helped C. Guthrie to do it. An internal and external skin flap were made, and the muscles cut short. In military surgery it was especially advantageous, for heavy baggy flaps rendered

transportation difficult. In advocating the use of the lever, it should not be forgotten that bad results had followed only a prolonged use of the tourniquet.

Mr. Gould replied to Mr. Macnamara that the cause of the difficulty of passing the lever in the case referred to had been a stricture of the rectum. The thrombosis, he felt bound to say, he was inclined to attribute to carbolic acid poisoning. The oval method was as rapid in performance as the other.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Friday, April 18.

Dr. Stevenson, President, in the Chair.

The minutes of the previous meeting having been read and confirmed, the Council presented a draft code of regulations for houses let in lodgings. It was resolved that the regulations be received and adopted by the Society, and that they be printed and circulated amongst the members and certain public bodies.

A letter was read from the Metropolitan Board of Works with draft copies of regulations as to dairies, cowsheds, and milkshops, prepared under an order of the Privy Council, on which the Board desired to have the opinion of the Society. This was referred to the Council, with power to act.

Dr. Shepherd T. Taylor, Medical Officer of Health for Norwich Rural District, was elected an extra-metropolitan member.

Water as an Agent in the Spread of Diphtheria.

Dr. B. Browning read a paper on this subject. He said that the malady has been known to be communicated—(*a*) by direct inoculation, as through receiving the products of coughing, through kissing, or the partaking of infected food; and (*b*) by inhalation of air surrounding the sufferer, or derived from a sewer or cesspool in the vicinity. Water not only may be, but must be, and is very frequently an active agent in the spread of diphtheria. Diphtheria is far more prevalent in a rural than in an urban district, in spite of the pure air of the former, and the crowded condition of the latter. A city water-supply is, as a rule, much less subject to systematic pollution than that of a country place; disinfection is more likely to be thoroughly carried out in the town than in the hamlet; the discharges from the sick, usually find an exit into a sewer of the city, and a cesspool of the villa or cottage. Almost universally the same water is used for cooking, drinking, and washing purposes, without any, or at best an imperfect, filtration. Assuming that this water contains diphtheritic germs, may not the sudden and simultaneous appearance of diphtheria in various houses (sometimes observed to have had no communication with each other, and where no contagion is to be traced) be thus accounted for? Mr. Power, of the Local Government Board, in a recent report respecting the prevalence of "throat ill-ness," as he terms it, in the North of London, attributes the origin of the outburst to the milk-supply of parts of that locality becoming affected. He only arrived at negative conclusions as to how it was vitiated. He is not disposed to credit water as a cause of the milk infection, since the milk vessels at Kilburn Dairy, one of the two centres of propagation, were washed with good West Middlesex water, and the well at the other was of doubtful character. The sanitary arrangements of most of the houses in the affected districts were faulty. Closet cisterns served as ventilators for the sewers and drinking-water tanks. As to the adulteration of milk with water, by retailers, after its purchase from the dairies, there is some *primâ facie* evidence against water as a not unlikely accomplice of the guilty milk on this occasion. Diphtheria first came under the author's notice in 1859, whilst serving her Majesty on the Australian station. The mails of 1858 had brought news of it as a pest in Europe, and the heads of the profession in the antipodes were on the look-out for its importation. Nine cases were detected in Sydney, the origin of which baffled everyone's inquiries, as did the first few of the 200 odd seen in North Tasmania. There was every facility for the spread of zymotic disease. Diphtheria had not been previously known. This new ailment was judged to be brought, as well as certain moral ones, from the mother country. In December, 1870, a case of primary diphtheria, of most severe type, occurred in the family of a gentleman residing in a village in East Kent. The water-supply of his house was taken from a sewage-polluted river running through his grounds. In spite of the most complete isolation of the patient from the first, and of every successive case subsequently occurring in the dwelling, not one of the household (fourteen persons in all) was exempt from the epidemic. Between Christmas, 1870, and March, 1871, forty cases came under the author's care in the parish. The mortality was one in ten attacks. The water-supply of every house, where not drawn from the river, was from shallow surface wells in superficial gravel, usually close to cesspools. His predecessor informed him that there had been no instances in the country side for quite ten years. The affected houses were variously situated; some on high land and dry soil, some near woods, some in "bottoms," and close to springs or damp ground, some on the river bank, some singly, some in groups,—but one and all were in the immediate proximity of hop-grounds. He could not trace their origin to any history of direct communication with each other. The exciting cause of this epidemic appeared fairly attributable to accidental water-pollution, probably fæcal, possibly manurial, rather than to direct personal contagion or atmospheric miasmata. In the spring of 1872 he had to attend twenty consecutive cases of diphtheria in another Kentish parish situated on the top and sides of a chalky undulating down, with water entirely furnished by surface supply, there being no river within some miles. He noted four separate sites, almost simultaneously invaded, which were widely distant, and never, from the first, had any communication with each other, except through the visits of the clergyman and himself. There were no more diphtheritic patients to be heard of in that part of the county. Three of the victimised places were detached cottages in various parts of a valley. The fourth was a collection of four single houses and one double one, arranged as three sides of a square, on the top of a high table land, the fourth side being open. The sanitary appliances and surroundings of all the buildings in which there was diphtheria were of the customary rural type—pigsties, cesspools, and wells being in close proximity, and the wells, in addition, all fouled by the neighbouring hop-gardens. Their water, in each case, gave ample evidence of organic pollution, by rough qualitative tests. The inhabitants of the square were supplied by a single central well; and in every house having children, with one notable exception, he witnessed diphtheria. This exception occurred in a part of the double house, whose occupants would not drink from the well, but brought water (which on examination proved fairly pure) daily from a neighbouring farm. The hop-gardens were then being manured with "fish stuff," —a probable instance of water-pollution, as hop manure is a compound of the vilest town filth and refuse. That the well in the square was an agent in spreading diphtheria seems proved by the exemption of those who did not use its water, but were otherwise exposed to the same chances of infection as their neighbours who did. Reviewing his metropolitan experience, he found that in every house inspected after the occurrence of diphtheria the water-cistern or butt gave a much larger quantity of organic ammonia than it should have done. The water-butt was invariably associated with defective drainage, allowing a free escape of sewer-air into the court. The cistern never failed to receive and store whatever gases, harmless or lethal, chanced to pass through the house-pipe and sewer. In the country epidemics no direct personal contagion could be made out, although it was anxiously sought for. Aërial infection seemed everywhere contr-aindicated, owing to the open and breezy situation of nearly all the implicated dwellings. In all, the drinking-water was organically impure, and received surface filth of every description. He ventured to submit that he had supplied some of that evidence which by Dr. Parkes and others is deemed "still wanting to prove the production of diphtheria by contaminated water."

Dr. Tripe drew attention to his own experience in Hackney as to the spread of diphtheria by the agency of water. He believed diphtheria was more often conveyed by water or by milk than in any other way.

Mr. Jacob alluded to an outbreak of diphtheria, apparently due to contaminated water, in which no other possible source of infection could be discovered. He also specially men-

tioned two epidemics of diphtheria which he considered to be undoubtedly due to contaminated milk. All those infected in each outbreak received their milk-supply from a particular dairy. The water-supply in each case was very foul, some of which had, no doubt, been mixed with the milk. After a complete cleansing of the water-tanks the epidemic ceased.

Dr. Corfield considered that facts were wanting to prove that diphtheria was communicated by means of water. Until lately its spread by the agency of water or milk has been overlooked. He believed the disease to be chiefly caused by air containing the poison.

Mr. McCullagh Torrens, M.P., gave some explanations with regard to the Artisans' Dwellings Act (1868) Extension Bill. He cordially agreed with the views of the Society as expressed in their petition to the House of Commons, especially the alteration of the schedule proposing to make the vestries and district boards of works the local authorities, instead of the Metropolitan Board of Works. He proposed for the consideration of the Society an alternative plan by which the Metropolitan Board of Works should be made the local authority in case the vestries and district boards of works neglect to take any action under the Act, say for a period of three years.

After some discussion it was resolved not to adopt the alternative scheme, but to adhere to the terms of the petition as already drawn.

The meeting then adjourned.

NEW INVENTIONS AND IMPROVEMENTS.

ABSOLUTE PHENOL.

We have received from Messrs. Bowdler and Bickerdike, of the Eagle Chemical Works, Church, Lancashire, a sample of their "Absolute Phenol," a form of carbolic acid in a state of extreme purity. It is a beautiful preparation, of a pure white, and having a slight, almost fragrant and certainly not unpleasant, smell of tar. It dissolves easily and completely in water, and, being quite free from impurities, is much less likely to cause irritation than is ordinary carbolic acid. Moreover, it volatilises slowly, and it does not destroy by decomposition the protecting agents by means of which it is applied. We learn that it has for some years been very largely used in King's College Hospital with the most satisfactory result, being found to produce a maximum of protection with a minimum of irritation. Its purity makes it also especially suitable for administration in those cases in which it may be considered desirable to exhibit carbolic acid internally. Messrs. Bowdler and Bickerdike have succeeded in very greatly reducing the cost of production of absolute phenol, and it will no doubt come to be very widely and generally employed for medical and surgical purposes, in preference to any other form of carbolic acid.

WARNER AND CO.'S SUGAR-COATED PILLS.

Messrs. Warner and Co. have deservedly obtained great credit for the excellence of their sugar-coated pills, and the latest specimen that we have seen of them—the pil. phosphori—appears quite worthy of the high reputation of the manufacturers. The pills are beautifully made, and may be had of various degrees of strength, so as to contain from $\frac{1}{100}$th to $\frac{1}{25}$th of a grain in each pill. Phosphorus is, however, a dangerous drug for the public to play with, and it cannot be said that even the profession are yet agreed as to whether it can be administered with real benefit or without serious risk. We are glad, therefore, to see that Messrs. Warner and Co. label their pills with the warning that "Phosphorus should be administered with care, and only by direction of a physician." Warner and Co.'s preparations can be obtained from Messrs. F. Newbery and Sons, 37, Newgate-street.

INGLUVIN.

This is a new remedy prepared, by Warner and Co., from the "Ventriculus Callosus Gallinaceus." It is said to be superior to pepsine as a remedy for feeble, painful, and imperfect digestion, and may be prescribed in the same manner, doses, and combinations. In our second volume for 1878, at page 207, we quoted, from an article in the *Revue des Deux Mondes*, some remarks by Mons. Alfred Ebelot on the employment of "ostrich pepsine" in the Argentine Republic; and we learn from the *Pharmaceutical Journal* of April 12, 1879, that ostrich pepsine is really prescribed by medical men in the Argentine Republic, and is known by the public as "pepsina nostra." Ingluvin, prepared from the gizzard of the chicken, is the nearest approach to ostrich pepsine that can be obtained in Europe, we suppose; and we may add that we have given it with a satisfactory result. It is supplied by Newbery and Sons.

PURE ESSENCES OF MEATS.

These essences—of beef, mutton, and of chicken—are very perfectly made. They retain the flavour and smell of the meats used, are quite clear, and are meant to be used, cold or warm, without dilution. In fact, they require no further preparation, and resemble unusually well and freshly prepared home-made extracts. They will be found extremely convenient and valuable in the sick-room. They are prepared by the London Manufacturing Company, 8, Snow-hill, Holborn Viaduct, E.C.

KEPLER'S CONCENTRATED MALT EXTRACT, AND MALT EXTRACT WITH COD-LIVER OIL.

It may now be held as an established fact that good malt extracts, free from alcohol, have a considerable remedial and nutritive value; but besides this, they are fashionable. Consequently, quite a number of them, as the Americans would say, are made, and it is by no means an easy thing to differentiate them so as to be able fairly to say which are the best. It does appear to us, however, that the Kepler extract is very good, and deserving of special commendation. It is said to be prepared from the sweet extract of the malt, of barley, wheat, and oats, before it has been fermented; and to be concentrated *in vacuo*, at a low temperature, so that the greatest possible quantity of the diastase is preserved; and its light colour and sweet and pleasant taste confirm this statement. Dr. W. Roberts, of Manchester, read, at the meeting of the Lancashire and Cheshire Branch of the British Association, on April 26, a paper "On Digestive Ferments," including the various malt extracts; and we are informed (the paper has not yet, so far as we know, been published) that he placed Kepler's extract first on the list of malt extracts that he had found reliable and containing a proper amount of diastase. The Kepler "Malt Extract with Cod-Liver Oil" also deserves praise; it does certainly both smell and taste of cod-liver, but to a degree so remarkably slight that no one probably will find any difficulty in either taking or digesting it. The Kepler extracts are supplied by Messrs. S. M. Burroughs and Co., 8, Snow-hill, E.C.

CHAULMOOGRA OIL, CHAULMOOGRA OIL PERLES, AND OINTMENT.

As Chaulmoogra oil, which is an official remedy, and has long been highly esteemed in Hindoostan, is now being much tried in this country, in skin diseases, rheumatism, and other maladies, it is well to know that it can be obtained in a perfectly pure state from Corbyn, Stacey, and Co., 300, High Holborn. As the oil is not liquid at ordinary temperatures, Messrs. Corbyn, for convenience of administration, supply it also in the small, globular gelatine envelopes known as *perles*. These preserve the oil unchanged for a long time, and have, of course, the advantage of being tasteless. The ointment contains 25 per cent. of the oil, and supplies a convenient means for external application of the drug.

Midland Medical Society.—The Society's prize of £5 5s. for Clinical Surgery has been awarded to Mr. Cornelius Suckling, and will be presented at the ensuing inaugural meeting.

South London School of Pharmacy.—The prizes for the Second B Course were presented on Saturday, 3rd inst., by the Secretary, Mr. W. Baxter, to the following successful competitors:—Senior Chemistry — medal, Mr. Newbigin; certificate, Mr. Lemmon. Junior Chemistry—medal, Mr. Scammell; certificate, Mr. Stevens. Botany—medal, Mr. Betts; certificate, Mr. Dutton. Materia Medica—medal, Mr. Cook; certificate, Mr. Stedman. Pharmacy and Practical Dispensing medal, Mr. Stevens; certificate, Mr. Cook.

OBITUARY.

CHARLES MURCHISON, M.D., LL.D., F.R.S.

Dr. Murchison commenced the study of medicine in Aberdeen in 1846, and completed it in Edinburgh. He had a brilliant career as a student, carrying off a large number of medals and prizes in the various classes of the University. He was subsequently, in 1851, Resident House-Surgeon at the Royal Infirmary, and was elected President of the Royal Medical Society of Edinburgh. He was one of the original members of the Physiological Society of Edinburgh, founded at this date. He graduated M.D. on August 1, 1851, receiving the graduation medal for his thesis. He passed a short time in Italy as Physician to the British Embassy at Turin; but subsequently returned to Edinburgh as Resident Physician, spent some months at Dublin at the Maternity Hospital, and finished his studies in Paris. To the Edinburgh Physiological Society he contributed papers on clinical and pathological subjects, which appeared in the *Edinburgh Medical Journal* of 1852. On January 17, 1853, he became Assistant-Surgeon in the East India Company's Service, and on June 2 of the same year he was appointed Professor of Chemistry in the Bengal Medical College, subsequently taking medical charge of certain sections of the troops in Burmah. He resigned his connexion with the Indian Medical Service in October, 1855. He communicated valuable papers on the climate and diseases of Burmah to the *Edinburgh Medical Journal* of January 1 and April 1, as well as some botanical papers to the Linnæan Society. In 1855, Dr. Murchison became a Member of the College of Physicians of London, and attached himself as Physician to the Western General Dispensary, and became Demonstrator of Anatomy at St. Mary's Hospital, an office which he shortly resigned for that of Lecturer on Botany. He became at the same time a member of the then London Medical Society of Observation, to whose proceedings he made most valuable contributions. He contributed a paper to the Edinburgh Botanical Society, on "Chaulmoogra Odorata as a Cure of Epilepsy." His two letters on "The Discovery of the Leuchæmia of Virchow," which appeared in the *Medical Times and Gazette* of March and April, 1856, are important contributions to a discussion of which the interest is still fresh. At St. Mary's Hospital, Dr. Murchison set to work to prepare a catalogue of the 812 preparations comprising the then pathological museum of the Hospital, and laid that school under great obligations by the remarkable skill and completeness with which he fulfilled this laborious duty. His contributions to the *Transactions of the Pathological Society* are numerous.

Dr. Murchison was appointed in 1856 an Assistant-Physician to King's College Hospital, an appointment which he resigned in 1860. He was elected the same year, and about the same time, Assistant-Physician to the London Fever Hospital, a connexion which had a great influence on his future career. On resigning his appointments at St. Mary's Hospital, he received a testimonial which only did justice to his great services to that institution. He was elected Fellow of the Royal College of Physicians in 1859, and became Lecturer on Pathology and Pathologist at the Middlesex Hospital in July of 1860, and Assistant-Physician to that Hospital on December 20. In 1861 he became Physician to the London Fever Hospital, and in 1865 he undertook the laborious duties of Honorary Secretary to the Pathological Society, and he was elected as President of the Society in 1877. Among numerous contributions to the societies and medical journals we may recall attention to the distinctions he drew between typhus and typhoid fever, and his paper to the *Royal Medical and Chirurgical Society's Transactions*, entitled "Contributions to the Etiology of Continued Fever." Later on, he contributed to the *Edinburgh Medical Journal* (August, 1858) remarks on the changes which are supposed to have taken place in the type of continued fever, and in October of the same year a paper on "The Classification and Nomenclature of Continued Fevers." During this period he contributed numerous reviews to the *British and Foreign Medico-Chirurgical Review* and other leading medical journals.

In 1861 he edited in English Frerichs' "Diseases of the Liver," and translated from the German the second volume of the same author's "Clinical Study of Liver Diseases." At the close of the year 1862 appeared a "Treatise on the Continued Fevers of Great Britain," with coloured plates, diagrams, etc., octavo, 638 pages, published by Parker and Son. In 1866, Dr. Murchison was elected a Fellow of the Royal Society, and became, at the same time, Physician and Lecturer on Medicine at the Middlesex Hospital. In 1869, on retiring from the post of Secretary of the Pathological Society of London, he became Treasurer, and he held the latter office for eight years. He also re-edited the geological and palæontological MSS. of his friend Dr. Hugh Falconer, the Indian geologist and palæontologist, and he led a movement which resulted in the founding of a Falconer Memorial Fellowship in the University of Edinburgh. The following year the University of Edinburgh honoured him with the honorary degree of LL.D. In 1871, St. Thomas's Hospital invited Dr. Murchison to accept the post of Physician to the Hospital and Joint Lecturer on Medicine. In 1873, Dr. Murchison was appointed Croonian Lecturer at the Royal College of Physicians; and his lectures on Functional Derangements of the Liver were subsequently published as a separate work. In 1875, Dr. Murchison was appointed Examiner in Medicine to the University of London.

Dr. Murchison leaves a wife and children to lament his loss. Through his wife he was connected with the late Bishop of Ripon, and with Mr. Bickersteth, the well-known surgeon of Liverpool. His manner of death was most sudden.

MEDICAL NEWS.

University of St. Andrews.—The following gentlemen having passed the required examinations, obtained the degree of Doctor of Medicine on April 22:—

Beaney, James George, F.R.C.S.E., L.K.Q.C.P.I., L.M., Melbourne.
Blackwood, Thomas, L.R.C.P. Edin., L.R.C.S., Wednesbury.
Dearden, John, M.R.C.S.L., L.S.A., Church, near Accrington.
Hague, Samuel, L.R.C.P. Edin., L.R.C.S., Camberwell.
Kempe, Charles Patrick, M.R.C.S., L.M., L.S.A., London.
Oswald, James W. J., L.R.C.S. Edin., L.R.C.P. Edin., L.S.A., London.
Pearce, Charles Worth, F.R.C.S. Edin., L.R.C.P.L., L.S.A., London.
Roberts, Owen, M.R.C.S., L.M., L.R.C.P. Edin., L.S.A., Notting-hill.
Steel, William Stott, M.R.C.S.E., L.A.C.E., Torquay.
White, Samuel Shapland, M.R.C.S., L.R.C.P., London.

At the same time, Robert Maxwell Moffat, L.R.C.P. Edin., Sidmount, Moffat, obtained the degrees of M.B. and C.M.

Royal College of Surgeons of England.—The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 1st inst., and when eligible will be admitted to the pass examination:—

Bickle, Leonard W., student of St. Thomas's Hospital.
Blatherwick, Henry, of Guy's Hospital.
Bown, Arthur T., of St. George's Hospital.
Brinton, Roland D., of St. Bartholomew's Hospital.
Clough, Morley E., of St. Bartholomew's Hospital.
Cowan, Malcolm, of King's College Hospital.
Faddy, Edward R. P., of St. Bartholomew's Hospital.
Green, Edwin C., of St. Thomas's Hospital.
Hardwicke, R. R., of the Sheffield and St. Mary's Hospitals.
Hart, William H., of Guy's Hospital.
Knowling, Ernest M., of King's College Hospital.
MacNutt, George A., of St. Bartholomew's Hospital.
Mahomed, Arthur G. S., of Guy's Hospital.
Pratt, James J., of the Westminster Hospital.
Stephens, Lockart E. W., of Guy's Hospital.
Stonham, Charles, of University College Hospital.
Unicume, Thomas, of Guy's Hospital.
Walker, Ernest G. A., of St. Bartholomew's Hospital.
Warlters, Walter S., of St. George's Hospital.
Yeatman, John W., of St. Bartholomew's Hospital.

The following gentlemen passed on the 2nd inst.:—

Alpin, W. G. P., student of St. Thomas's Hospital.
Bevan, Henry C., of St. Bartholomew's Hospital.
Blampied, John W., of St. Bartholomew's Hospital.
Brewitt, James B., of St. Bartholomew's Hospital.
Callaway, James, of St. Bartholomew's Hospital.
Clapp, George T., of St. Bartholomew's Hospital.
Clark, Oscar W., of St. Bartholomew's Hospital.
Crick, William T., of St. Thomas's Hospital.
Déqué, Laurent, of St. Mary's Hospital.
Eastes, Frederick, of Guy's Hospital.
Edwards, Arthur R., of King's College Hospital.
Irvin, Frederick D., of University College Hospital.
Payne, William A., of St. Bartholomew's Hospital.
Pedley, Frederick N., of Guy's Hospital.
Salmon, Arthur G., of St. Bartholomew's Hospital.
Sparkes, Claude S., of King's College Hospital.
Steer, William, of St. Mary's Hospital.
Stephen, Guy N., of St. Bartholomew's Hospital.
Stott, Hugh, of St. Mary's Hospital.
Tait, Henry B., of St. Bartholomew's Hospital.
Utting, George, of Guy's Hospital.
Woolley, George T., of Guy's Hospital.

The following gentlemen passed on the 5th inst.:—

Alderton, Herbert C., student of St. Bartholomew's Hospital.
Bruce, Robert M., of St. Thomas's Hospital.
Canton, Herbert, of the Middlesex Hospital.
Carter, Thomas E., of St. Bartholomew's Hospital.
Cooper, Walter, of St. Bartholomew's Hospital.
Cory, William H., of the Westminster Hospital.
Crookshank, Edgar M., of King's College Hospital.
Dillon, John P. C., of St. Thomas's Hospital.
Dyson, Herbert J., of St. Mary's Hospital.
Harrison, Charles, of St. Bartholomew's Hospital.
Harrison, John, of St. Thomas's Hospital.
Munckton, Alfred, of University College Hospital.
Palmer, John J., of Guy's Hospital.
Perks, Robert H., of Guy's Hospital.
Ray, William B., of St. Bartholomew's Hospital.
Scott, Bernard C., of the Middlesex Hospital.
Shorthouse, William S. N., of Guy's Hospital.
Stuart, Sidney O., of Guy's Hospital.
Trotter, Walter O., of St. Bartholomew's Hospital.
Wilson, Reginald W., of St. Mary's Hospital.

Thirty-nine candidates out of the 150 examined having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including eight candidates who had an additional three months.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the examination held on April 21 and following days, the under-named gentlemen, having passed their final examination for the letters testimonial, and made and subscribed the declaration, were admitted Licentiates of the Royal College of Surgeons in Ireland, viz.:—

William Allen, Richmond Robert Allen, William Conyngham Ashe, Hubert A. Auchinleck, Edward Frederick Sheehy Barry, Joseph Henry Bond, Winsthorpe Benjamin Browning, Kyran Buggy, Arthur England, Johnson Croly, John Joseph Daly, Augustus Newton Dickinson, Patrick Samuel Duigenan, Henry Hamilton Dwyer, William Bunbury Eames, Alfred Ewing, Edward Finucan, George E. Fisher, Thomas Fitzmaurice, John Joseph Hayes, Thomas Jackson, Joseph King, Joseph Sangan, John Vincent Lentaigne, Edward Patrick Meagher, Adam Mitchell, William O'Donnell, Michael Joseph O'Shea, James H. Parkinson, William Pooley, Thomas Emile Ryan, Patrick Smith, and George Harrison Young.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 1:—

Crisp, Thomas, 16, Beaufort-street, Chelsea, S.W.
Downes, Chas. Hagger, 18, White-street, S.E.
Dyson, Thos. Sheppard, Sheffield.
Fellowes, Henry Thos. Abdy Butler, Chobham, Surrey.
Griffiths, Herbert Tyrrell, 38, Devonshire-place, W.
Midwinter, Henry James Henry, Gloucester-road, New Barnet.
Penny, Edward, Rushton, Blandford.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Bousignac, Joseph Ludovic, St. Mary's Hospital.
Goldney, Chas. Nelson, Charing-cross Hospital.
Graham, Robert, Charing-cross Hospital.
Pullin, Frank Bingley, Aberdeen University.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

LEACH, HARRY, M.R.C.P.—Honorary Physician to the Shipmasters' Society.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—Fleet Surgeon Lowry John Monteith has been placed on the Retired List from April 28.

BIRTHS.

BUZZARD.—On April 28, at 43, Abingdon-street, Northampton, the wife of Frank Buzzard, M.D., of a daughter.

COOKE.—On May 2, at 16, Woburn-place, Russell-square, the wife of Thomas Cooke, F.R.C.S., of a son.

KEATES.—On April 30, at East Dulwich, the wife of W. Cooper Keates, L.R.C.P. Lond., M.R.C.S. Eng., of a daughter.

MEADOWS.—On May 1, at Otley, Ipswich, the wife of G. F. W. Meadows, M.R.C.S.E., of a son.

MONTANARI.—On April 28, at 1, Place Masséna, Nice, the wife of L. P. Montanari, M.D., of a son.

WILTSHIRE.—On May 2, at 57, Wimpole-street, W., the wife of Alfred Wiltshire, M.D., F.R.C.P., of a son.

MARRIAGES.

COLLINGRIDGE—BARNETT.—On May 3, at Hornsey, William Collingridge, M.R.C.S., B.A., M.B., of Selwood, Forest-hill, S.E., to Eleanor Frances, third daughter of James Drover Barnett, of Crouch-end, N.

CRAIG—ATTENBOROUGH.—On May 6, at Sawtry, James Craig, M.B., C.M., of Eastwood, Notts, to Mary, third daughter of Richard Attenborough, of Sawtry, Hants.

ELKINGTON—LOWE.—On April 30, at St. Mark's, North Audley-street, Herbert Frederick, eldest son of Frederick Elkington, Esq., of Moseley Hall, near Birmingham, to Thomasine Jessie, eldest daughter of John Lowe, M.D., of King's Lynn, Norfolk.

SCOTT—MANLEY.—On April 30, at Fareham, John Walter Scott, M.R.C.S.E., of Penge, late of the Royal Navy, to Alice Henrietta, younger daughter of John Manley, M.D., Superintendent of the Hants County Asylum.

SEWELL—AINSLIE.—On April 29, at Edinburgh, James Arthur Sewell, M.D., late of H.M.'s Bengal Army, to Elizabeth Ann, youngest daughter of Robert Ainslie, Esq., of Elvington, East Lothian.

WARD—KEANE.—On May 1, at Godalming, Espine C. R. Ward, L.K.Q.C.P.I., A.M.D., to Janie M. Colpoys, youngest daughter of the late Rev. William Keane, M.A., rector of Whitby, Yorks.

YATES—HARDIE.—On April 19, at St. Helier's Church, Jersey, Walter Peel Yates, M.R.C.S., of Jersey, to Olgar, elder daughter of the late John Hardie, Esq., of Fassifern, Queensland.

DEATHS.

BLANDY, CHAPIN ADDISON, eldest surviving son of Alfred Addison Blandy, M.D., 11, Kensington-square, on April 29, aged 28.

BRADSHAW, ETHEL MAUD, second daughter of Watson Bradshaw, L.R.C.P., Edin., at 43, Welbeck-street, on April 30, aged sixteen months.

CHAMBERS, CHARLES HALL, M.R.C.S. Eng., Staff Surgeon R.N., at Brighton, on May 3.

CLEGHORN, CHARLES MOSSOP, son of George Cleghorn, M.R.C.S. Eng., at Bleasheim, New Zealand, on March 5, aged eight months.

DIXON, GEORGE P. N., only son of T. G. Dixon, M.D., late of Moss Cliffe, Northwich, Cheshire, at 6, Alfred-place, Bedford-square, on May 1, aged 21.

EWART, JOSEPHINE CAROLINE, wife of John Henry Ewart, L.R.C.P. Lond., at Limefield House, Cheetham-hill, Manchester, on May 1, aged 21.

FLINT, HORACE, M.B., M.R.C.S., eighth son of Frederick Flint, Esq., at Roper House, Canterbury, of typhoid fever, on May 1, aged 26.

GATTON, WILLIAM, at 21, Church-street, Spitalfields, on April 30, in his 83rd year.

GOLDSMITH, ANNA FANNY, infant daughter of S. J. Goldsmith, L.R.C.P. Lond., at Sutna, Central India, on April 1.

HART, PHILIP NEVILLE, M.B., M.R.C.S., at Erith, Kent, on May 3, aged 28.

LAMING, RICHARD, M.R.C.S., at Arundel, on May 3, in his 80th year.

LEWIS, FREDERICK, M.R.C.S., L.R.C.P.E., at 43, Upper Gloucester-place, Dorset-square, of acute bronchitis, on April 26, aged 40.

MENZIES, JULIA ANTOINETTE, younger daughter of J. A. Menzies, M.D., of Pitnacree, Perthshire, N.B., at Naples, of diphtheria, in her 7th year.

MYERS, FANNIE ELIZABETH MAUD, only daughter of H. R. Myers, L.F.P.S. Glasg., at 30, Euston-square, N.W., on May 5, aged 16.

RENDLE, JAMES DAVY, M.D., L.R.C.P. Lond., at Park-hill, Clapham-park, S.W., on May 1, aged 56.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BOROUGH OF PORTSMOUTH LUNATIC ASYLUM.—Medical Superintendent and Assistant Medical Officer. Candidates for the above appointments must send in their applications, with particulars of age, etc., accompanied by testimonials of recent date, to John Howard, Town Clerk, on or before May 26.

DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE.—Dental House-Surgeon. Applications to the Honorary Secretary, at the Hospital, on or before May 21.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon and Dispenser. Candidates must be unmarried, registered as legally qualified to practise medicine, and not more than fifty years of age. Qualifications and testimonials to the Secretary on or before May 23.

MIDDLESEX HOSPITAL, W.—Resident Physician's Assistant. Candidates must be qualified and prepared to enter upon the duties at once. Applications, under cover to the Secretary-Superintendent, by one o'clock, Saturday, May 10. Candidates to be in attendance at 1.30 p.m.

RADCLIFFE INFIRMARY, OXFORD.—Physician. Candidates must be legally qualified to practise as physicians in England. Applications, with testimonials, to the Secretary, on or before June 6.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. Candidates must be possessed of a medical or surgical qualification from one of the Examining Boards of the United Kingdom. Testimonials to the Secretary, on or before May 21.

SAINT BARTHOLOMEW'S HOSPITAL, CHATHAM.—Assistant House-Surgeon. Candidates must be registered medical practitioners. Applications, stating age, with testimonials, to the Clerk to the Trustees, on or before May 13.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bradfield Union.—Mr. E. J. Blyth has resigned the Second District; area 11,604; population 3021; salary £51 14s. per annum.

Bristol Incorporation.—The First District is vacant; area 305; population 14,926; salary £100 per annum.

Ellesmere Union.—The Baschurch District is vacant; area 13,280; population 2275; salary £26 per annum.

Yeovil Union.—Mr. G. F. Wills has resigned the Seventh District; area 8121; population 3074; salary £59 per annum.

APPOINTMENTS.

Aston Union.—William G. Cresswell, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A., to the Fifth District.

Axbridge Union.—John H. Tarleton, M.R.C.S. Eng., L.S.A., to the Eighth District.

Coventry Union.—John Johnson, M.R.C.S. Eng., L.S.A., to the Third District.

East Ward Union.—Rodolphe Durand, L.R.C.P. Edin., L.R.C.S. Edin., to the Orton District.

Glossop Union.—Wm. H. Hunt, L.R.C.P. Edin., L.R.C.S. Edin., to the Glossop District and the Workhouse.

Godstone Union.—Gerald E. Barron, B.M. Dub., L.R.C.S. Ire., to the Caterham District.

Kingsbridge Union.—Wm. H. Webb, M.R.C.S. Eng., L.S.A., to the Third, Fifth, and Tenth Districts.

Kingsclere Union.—Septimus Edwards, M.R.C.S. Eng., L.S.A., to the Kingsclere District and the Workhouse.

Leek Union.—Abraham T. Bury, L.R.C.P. Edin., M.R.C.S. Eng., to the Longnor District.

Linton Union.—Robert Head, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Balsham District.

Tewkesbury Union.—J. H. Allard, M.R.C.S. Eng., L.R.C.P. Edin., L.F.P.& S. Glasg., to the Tewkesbury District and the Workhouse.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—On Friday, May 2, the ceremony of the distribution of prizes awarded at the close of the winter session of 1878-79, took place in the theatre of the Hospital. Dr. Foot, Senior Physician, presented the medical prizes; and Mr. Porter, Senior Surgeon and Surgeon to the Queen in Ireland, presented the surgical prizes. The following is the list of the successful candidates:—First Medical Prize, Thomas Taylor Reynolds; Second Medical Prize, William S. Gordon; First Senior Surgical Prize, George E. Fisher; Second Senior Surgical Prize, William Watson Pike; First Junior Surgical Prize, Alfred Miller. Special certificates were also presented to the outgoing Resident Surgical Pupils—Messrs. George E. Fisher and James H. Parkinson,—as well as to the outgoing Medical Clinical Clerks—Messrs. William S. Lecky and Lucas A. Middleton.

COLLEGIATE EXAMINATIONS.—The following were the questions on Anatomy and Physiology at the written primary examination for the diploma of Membership of the Royal College of Surgeons on the 7th inst., when the candidates, 116 in number, were required to answer at least four (including one of the first two) out of the six questions, viz.:—1. Explain the formation of the pulse at the wrist. Describe a normal sphygmographic tracing. What modifications may the pulse present in health? Why is it absent in the capillaries, and under what circumstances does it occur in the veins? 2. Describe the structure and functions of the iris and ciliary muscle. By what nerves are they supplied, and what would be the effects upon them of the division of each of these nerves? 3. Describe the sternum, including in your description the attachments of the muscles and ligaments connected with it. 4. What are the relations of the pancreas? In what ways may this viscus be exposed after the abdomen has been opened? 5. Give the dissection required to expose the third portion of the subclavian artery, and the relations of this part of the vessel. 6. Describe the anatomy of the upper and lower lips, including the muscles inserted into them. [The oral examination commences this day, Friday.]

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN APRIL, 1879.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen: As Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.	
				Saline.	Organic.	Before Boiling.	After Boiling.
Thames Water Companies.	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	19·70	0·026	0·135	0·000	0·005	14·8	8·3
West Middlesex...	20·90	0·015	0·105	0·000	0·003	14·8	8·3
Southwark and Vauxhall ...	19·80	0·047	0·126	0·000	0·006	14·3	6·3
Chelsea	19·70	0·052	0·114	0·000	0·008	13·7	8·3
Lambeth	20·70	0·044	0·135	0·000	0·008	14·3	2·8
Other Companies.							
Kent	28·10	0·005	0·315	0·000	0·003	17·6	5·1
New River ...	21·50	0·008	0·135	0·000	0·003	14·3	3·3
East London ...	21·40	0·028	0·165	0·000	0·006	14·8	2·8

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours.

The water was found to be clear and nearly colourless in all cases.

DR. DELASIAUVE, Physician at the Salpétrière for the section of epileptics, insane, and idiots, has just resigned his post for that of Honorary Physician. The Préfet de la Seine, wishing to recognise by an exceptional favour M. Delasiauve's thirty-six years of devoted service at Bicêtre and Salpétrière, has agreed to his request, with the consent of his successor, that he should be still allowed to inspect at his convenience, and even direct, the pedagogic exercises of the class of little girl idiots. When we call to mind that M. Delasiauve has always declined all the honorary distinctions so much sought after by others, one can but admire the simplicity and modesty of our venerable *confrère*, who amidst the leisure of his retirement still desires to continue the education of these unfortunates. Dr. Legrand du Saulle is transferred from Bicêtre to Salpétrière as Dr. Delasiauve's successor.—*Rev. Méd.*, April 26.

TRICHINOSIS IN SPAIN.—M. Mauri, Professor at the Veterinary School at Toulouse, in a recent communication to the Medical Society of that city, stated that he had received specimens of pork from Barcelona. It seems that three years ago twenty-eight persons were invited to dine off a pig that had been recently killed at Villar in Valencia, and the whole of the guests became ill, six of their number dying. After some time it was discovered that the disease was trichinosis, the trichinæ being discovered both in the muscles of the pig and in those of the persons suffering. During the present year trichinæ have been found in various other parts of Spain, and at Barcelona among others. The municipality of that town have at last taken the matter up vigorously, and in almost all the slaughter-houses of Catalonia and the principal cities of Spain the microscope is now employed. The infected pigs are the product of the North of Spain. In Barcelona such a panic has arisen that the consumption of pork has been almost entirely suspended. It is said that in Italy and Portugal the importation of bacon and pigs from the United States has been interdicted in consequence of its having been discovered that they contain trichinæ.—*Rev. Méd.*, April 26.

PROLAPSING INTERNAL HÆMORRHOIDS.—Professor Gosselin referred in a recent clinical lecture to a case in which internal hæmorrhoids only descended during defæcation, sometimes with bleeding, were difficult of reduction, and attended by considerable pain. There being no contraction of the sphincter, forced dilatation was not required, and the chief indication consisted in diminishing the size of the hæmorrhoids, a practice that is preferable, when practicable, to their removal by operation, which is attended with considerable danger. When they are diminished in size they either return spontaneously, or are easily returned without pain by the patient. In this case the diminution was brought about by parenchymatous cauterisations made with Paquelin's thermo-cautery. No loss of blood took place; the eschars were soon eliminated, cicatrisation promptly followed, and the diminished hæmorrhoids were returned with very great facility after stool. The patient has had to take some aperients, especially rhubarb; and before leaving the hospital he was cautioned not to remain too long at stool, which most persons with prolapsing hæmorrhoids are very apt to do, when the efforts made render the hæmorrhoids larger, increase the hæmorrhage, and prolong the malady. He was also cautioned to avoid strong alcoholic drinks, which increase the size and produce congestion of the hæmorrhoids. Finally, he was told to avoid constipation, keeping the bowels freely opened either by rhubarb or enemata, so as to avoid expulsory efforts, and large masses of fæces which produce irritation and maintain the hæmorrhoids. In these cases of internal hæmorrhoids the surgeon should content himself with obtaining these three results—that they do not descend during progression, that they do not bleed, and that when they descend at stool they are easily reduced.—*Gaz. des Hop.*, April 29.

REMOVAL OF AN INVERTED UTERUS BY THE ELASTIC LIGATURE.—M. Chauvel related the following case to the Société de Chirurgie:—A woman, aged eighteen, entered the hospital of Orleansville, Algeria, having been delivered of her first child seven or eight months previously. Great force was used in removing the placenta, and an inversion of the uterus was recognised soon after, but, after some ineffectual attempts at reduction had been made, the case was left to itself. Painful and abundant hæmorrhage occurred at each menstrual period, and was reproduced by the slightest efforts. The

patient was very anæmic, in a good deal of pain, and quite unable to undertake any work. A careful examination having been made, it was ascertained that a partial inversion was present, constituting a tumour the size of a medium orange, with a broad pedicle. All attempts at reduction, or support by means of a Gariel pessary, only inducing debilitating hæmorrhages, an operation was, at the earnest request of the patient, determined on. On January 7, M. Chauvel, having assured himself of the continuity of the pedicle of the tumour with the circular projection formed by the lips of the cervix, passed the metallic noose of a *serre-nœud* around the pedicle, making sufficient constriction to arrest the oozing of blood from the surface of the uterus. Protecting the neighbouring parts with slips of cardboard, he next traced, by means of a cautery heated to a dull red, a furrow some millimetres in depth just below the metallic noose. In this furrow was placed the elastic ligature, formed of a caoutchouc drainage-tube, about four millimetres in diameter, the ends of which, after sufficient constriction had been made, were secured by a waxed thread. The *serre-nœud* was then removed, not a drop of blood having been lost during the operation. On January 16 the tumour came away, and the patient was discharged at the end of the month. She is now able to undertake the hardest work without either pain or fatigue.—*Union Méd.*, May 1.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

An Appeal.

Help is solicited towards the extension of the benefits of hospital aid to Kaffraria, in South Africa, by the establishment of a small hospital at the Central Station there. The hospital will be under the supervision of the Bishop of St. John's (better known in England as Dr. Henry Callaway, formerly a medical practitioner). He has in hand for this object upwards of £800, but it needs to be increased to £1200 to enable him to set to work. Contributions will be thankfully received by Cornelius Hanbury, Esq., Treasurer, Plough-court, 37, Lombard-street, or by Dr. E. Symes Thompson, 33, Cavendish-square.

Subscriptions already paid:—

	£	s.	d.
Sir George Burrows, Bart.	5	0	0
Sir James Paget, Bart.	2	2	0
Dr. E. Symes Thompson	2	2	0

Kafir Surgery.

The Kafir mode of treating fractures of the bones of the leg I have seen to be most admirable in its results. A hole about a foot in diameter and two feet deep is made in the floor of the hut, at a convenient distance from the fire (which is always in the centre of the hut), and in this the leg is placed. They then commence to pack around it fine floury dry earth, ramming it down with moderate force. When the foot is firmly fixed, counter-extension is made, as far as is necessary, by pulling upwards with the hands placed under the popliteal space; the packing meanwhile being completed. The man is able to lie comfortably, and can even vary his position to the kneeling posture. In this state he remains some five or six weeks. I have known extremely bad cases of compound fracture of the tibia or fibula, or both, treated with the very best results. The earth acts as a good antiseptic, no flies can invade the wound, and the heat of the adjacent fire keeps away all burrowing insects.

For inflammation within a bony cavity, such as the cranium, they elevate the scalp down to the bone, and commence to scrape with glass or flint until they reach the dura mater. With this treatment also they are very successful, especially after wounds from a "knobkerry," which is a stick of hard wood about two feet long, topped with a knob about the size of the closed fist. Blows from these weapons generally leave a cup-shaped circular bulge in the bone without fracture—at least, not of the outer table,—and in this situation they thin the bone. I have seen many skulls with these bulges, and where the persons have recovered.

An assegai wound they treat pretty much as we would—namely, by cold water bandages. An assegai wound of the thorax or abdomen is always fatal, for they not only stab, but also jab and twist the weapon inside so as to completely cut up the internal organs into a pulp; this action is even part of the stab itself, and is done by a few twists of the wrist, in an instant, and is never omitted.

Their operative interference in midwifery cases extends as far as turning and Cæsarian section, and even their rough mode of performing the latter yields, in general, a satisfactory result.

S. K. Cotter, M.D., M.Ch. Dub.

"Bosh Butter."—The vendors of "bosh" butter find, it seems, that to encourage purchasers it is at length necessary to introduce some ingenious device by way of a temptation. The device adopted by the dealers in this article was brought under the notice of the Wandsworth District Board of Works, last week, by the inspector under the Adulteration Acts, who stated that he had purchased a sample of butter in Battersea, and found a label on it, stating boldly that it was sold as a compound, "containing 75 per cent. of foreign fat." At the shop, notices were displayed in abundance, that "a handsome present will be given to every purchaser of our splendid butter." The Board took no action in the matter. The bribe offered may be an inducement to unwary purchasers, and the "bosh" dealers will probably still continue to exhibit, and find a sale for, the compound.

Condemned Meat.—Amidst the active measures now generally taken for discovery and subsequent disposal, after some chemical process of disinfection, of diseased meat, it is strange to find a neglect of the requisite precautions to prevent such refuse being by any ready means appropriated to purposes of human food. Two women were recently charged in a provincial police-court with stealing a piece of beef and a piece of pork which had been condemned by the inspector of nuisances. The evidence was insufficient to support the charge against the accused, but in the course of the inquiry it transpired that the pieces of meat in question had been taken by some person or persons from a large quantity of condemned meat which was temporarily deposited as manure in a timber-yard, apparently quite unprotected, and free to access by the workpeople employed in the yard. To some of these it seems to have been a temptation they could not resist, probably because, it is said, there was no offensive or unpleasant smell about it, and they did not regard it as unfit for human consumption. The inspector of nuisances stated that the disinfectant employed was carbolic acid, and that its effect would have been to poison anyone who ate the meat. The accused, it appeared, had offered for sale "some meat" to the keeper of refreshment-rooms, little suspecting its poisonous nature, but he declined to purchase it, thinking it had been stolen. It may be assumed that the proprietors of the yard were ignorant of the deadly nature of the stuff when they allowed it to be stored on their premises, or they would have given their workpeople some warning that it was poisonous. The immediate absolute destruction of such materials would no doubt be the most effectual protection to the public, but as that cannot be the unconditional alternative, the adoption of more stringent regulations in the disposal of such refuse appears to be imperative.

"Scavengers' Materials" for Road Foundations.—There can be no question that many of our suburban roads are a disgrace to the public authorities responsible for their unsatisfactory condition. In South London, as well as the outskirts of the metropolis on the north-east, several roads, it appears upon examination, were found to be made up of "scavengers' material," utterly unsuited to form road foundations, and certainly a source of danger to health. It is feared that local individual interests have, in too many instances, been allowed to exercise a controlling influence in these matters, to the prejudice of the public. The frequent complaints of the rotten and dangerous condition of newly made suburban roads constitute a fact strong in condemnation of the present system of supervision of them, and the public welfare requires some more satisfactory and reliable inspection, by which refuse injurious to health shall at least cease to form the material used for making these public highways.

A Medical Practice Compensation Case.—At the Court House, Newington Causeway, a case was recently heard to determine the compensation to be given to a firm of surgeons, under peculiar circumstances, by the Metropolitan Board of Works. Besides the leasehold interest of Wilton House, Horselydown, required to make improvements in the neighbourhood of Tooley-street, the chief question was the amount of compensation to be given for the practice. It was admitted that no other premises could be obtained within half a mile, and on the part of the claimants, who had carried on their profession for some twenty years, and had hundreds of patients, and whose net income was about £1600 a year, it was contended that by removal the business would be destroyed, and therefore two years' profits were to be awarded. On behalf of the Board it was denied that the business could be materially damaged. The jury, after some consideration, awarded as compensation £3648.

In Memoriam.—The Dean of Westminster has consented to the erection of a statue in Westminster Abbey in memory of the late Sir James Young Simpson, Bart., M.D., etc.

Contagious Cattle Diseases, America.—The Committee of Agriculture of the House of Representatives have agreed to the Bill establishing penalties for the transportation of cattle affected with contagious diseases. The report of the Agricultural Department states that the returns for the month of April show that farm animals are in an unusually good condition, and no virulent disease now exists excepting hog cholera in the West, and pleuro-pneumonia in six of the Eastern States.

Sophistication and a Town Councillor.—A grocer of Wolverhampton, in an extensive way of business, and a member of the Town Council, has been fined £5 and costs, for selling, as pure, a mixture of coffee and one-fifth chicory. An officer, who went to the shop under instructions of the Sanitary Committee, proved the case. The defence was that the mixture was sold to the officer by mistake.

Foster-Mothers.—The following case demonstrates the active vigilance required in the discharge of the duties of the inspector, to discover the artifice which baby-farmers adopt to escape detection of infringements of the law. At the Hammersmith Police-court, a woman was summoned for infringing the Infant Life Protection Act. An inspector stated that the defendant was licensed to take charge of two children. He discovered, however, on examining the Registrar's books, that she had registered the death of a third child, which he had never seen, though he had visited her house every month. The defendant admitted the charge. The magistrate said the Act must be strictly enforced, and fined her 40s. and costs, and directed that her name should be struck off the register.

F.R.C.S., Manchester, and A Fellow, Wolverhampton.—The annual election of Fellows into the Council of the R.C.S. will take place, as usual, on the first Thursday in July. There is one vacancy, occasioned by the death of Mr. John Hilton. The three members of the Council going out in rotation are Messrs. F. Le G. Clark, T. Spencer Wells, and George Critchett. It is generally understood that the first-named gentleman does not seek re-election. The names of Messrs. J. Wood, F.R.S., and H. Power, members of the Board of Examiners, and J. Lister, F.R.S., are the only names at present mentioned as probable candidates.

COMMUNICATIONS have been received from—

Mr. John Chatto, London; Mr. D. Colquhoun, London; Mr. Henry Morris, London; Mr. T. M. Stone, London; Mr. B. B. Wheatley, London; Dr. William H. Pearse, Plymouth; Mr. H. J. Capon, London; The Registrar-General, Dublin; Mr. Soelberg Wells, London; Mr. S. M. Burroughs, London; Dr. Carter, Liverpool; The Secretary of the University of St. Andrews; Mr. J. Knowsley Thornton, London; Dr. S. K. Cotter, Ballincollig; Mr. Walter W. Jones, London; Mr. Talfourd Ely, London; The Registrar of Apothecaries' Hall, London; The President of the Pharmaceutical Society, London; The Registrar of the University of London; Mr. Robert MacLehose, Glasgow; Mr. N. H. Mason, Paris; The Honorary Secretary of the Harveian Society; Dr. C. Meymott Tidy, London; Mr. W. Baxter, London; Mr. J. Wickham Barnes, London; The Registrar-General, Edinburgh; Dr. James Ross, Manchester; Dr. J. W. Moore, Dublin; The Secretary of the Midland Medical Society, Birmingham; The Secretary of the Royal College of Surgeons, Edinburgh; The Secretary of the Royal Institution.

BOOKS AND PAMPHLETS RECEIVED—

Thomas Addis Emmet, M.D., The Principles and Practice of Gynæcology—Hugh Clements, A Manual of Organic Chemistry—J. Lewis Smith, M.D., A Treatise on the Diseases of Infancy and Childhood, fourth edition—Dickens's Dictionary of London, 1879—Fortieth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—American Journal of the Medical Sciences—Glasgow Medical Journal—Obstetrical Journal—Monthly Homœopathic Review—El Siglo Médico—Edinburgh Medical Journal—Indian Medical Gazette—Journal des Sciences Médicales—Archives Générales de Médicine—Physician and Surgeon—American Practitioner.

APPOINTMENTS FOR THE WEEK.

May 10. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. H. H. Statham, "On the Leading Styles of Architecture Historically and Æsthetically considered."

12. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

13. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Karl Hillebrand, "On the Intellectual Movement of Germany from the Middle of the Last to the Middle of the Present Century."

Royal Medical and Chirurgical Society, 8½ p.m. Conclusion of Discussion on the Report of the Committee on Croup and Diphtheria.

14. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Harveian Society, 8½ p.m. Dr. Alfred Meadows, "On Ovarian Menorrhagia." Mr. Edmund Owen, "Cases of Cleft Palate treated by Operation." Mr. Knowsley Thornton, "On the Antiseptic Method in relation to Drainage of the Peritoneum in Abdominal Surgery."

Royal Institution, 3 p.m. Prof. Dewar, "On Dissociation."

16. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Society of Medical Officers of Health, 7½ p.m. Meeting.

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Prof. A. Cornu, "Étude Optique de l'Élasticité." (In French.)

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 3, 1879.

BIRTHS.

Births of Boys, 1362; Girls, 1245; Total, 2607.
Average of 10 corresponding years 1869-78, 2352·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	811	837	1648
Average of the ten years 1869-78	740·4	684·3	1424·7
Average corrected to increased population ...	...	...	1534
Deaths of people aged 80 and upwards ...	...	...	74

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	4	7	10	2	5	1	1	...	2
North ...	751729	2	14	5	2	13	...	4	2	3
Central ...	334969	...	8	...	2	8	...	...	...	4
East	639111	1	11	3	4	23	...	3	1	4
South	967692	3	13	8	6	24	1	8	2	4
Total	3254860	10	53	26	16	72	2	16	5	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·993 in.
Mean temperature	43·9°
Highest point of thermometer	59·0°
Lowest point of thermometer	31·0°
Mean dew-point temperature	75·1°
General direction of wind	N.E.
Whole amount of rain in the week	0·26 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 3, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending May 3.	Deaths Registered during the week ending May 3.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2607	1648	59·0	31·0	43·9	6·61	0·26	0·68
Brighton	105608	44·9	65	44	56·2	34·8	44·4	6·89	0·68	1·73
Portsmouth ...	131821	29·4	79	46	...	...	...	...	...	...
Norwich	85222	11·4	50	39	60·0	33·2	42·4	5·78	0·00	0·00
Plymouth	74293	53·3	48	39	57·5	35·5	45·5	7·50	0·37	0·94
Bristol	209947	47·2	155	70	59·6	28·4	43·6	6·45	0·11	0·28
Wolverhampton ...	75100	22·1	62	34	55·0	29·8	41·0	5·00	0·21	0·53
Birmingham ...	388884	46·3	308	187	...	...	...	...	...	...
Leicester	125622	39·3	78	60	58·5	28·8	43·0	6·11	0·00	0·00
Nottingham ...	169396	17·0	137	67	61·0	25·1	43·0	6·11	0·02	0·05
Liverpool	538338	103·3	383	244	53·1	33·5	44·4	6·89	0·36	0·91
Manchester ...	361819	84·3	266	197	...	...	...	...	...	...
Salford	177849	34·4	114	81	...	...	...	...	...	...
Oldham	111318	23·9	96	46	...	...	...	...	...	...
Bradford	191046	26·5	118	86	55·2	32·9	42·9	6·06	0·47	1·19
Leeds	311860	14·5	234	111	58·0	31·0	43·4	6·33	0·15	0·38
Sheffield	297138	15·1	223	128	56·0	28·5	42·8	6·00	0·14	0·36
Hull	146347	40·8	116	64	54·0	27·0	40·7	4·83	0·03	0·08
Sunderland ...	114575	41·4	83	45	58·0	36·0	43·8	6·58	0·22	0·56
Newcastle-on-Tyne	146948	27·4	122	78	...	...	...	...	...	...
Edinburgh	226075	53·9	153	88	57·8	29·2	42·3	5·73	0·34	0·86
Glasgow	578158	95·8	434	229	...	...	...	...	...	...
Dublin	314666	31·3	204	187	58·7	25·0	44·5	6·95	0·00	0·00
Total of 23 Towns in United Kingdom	8502896	38·6	6115	3818	61·0	25·0	43·2	6·22	0·21	0·53

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·99 in. The lowest reading was 29·45 in. at the beginning of the week, and the highest 30·29 in. by the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

OPENING ADDRESS
ON THE
USE OF FORCEPS AND ITS ALTERNATIVES IN LINGERING LABOUR.

Delivered at the Debate on the subject at the Obstetrical Society of London, May 7, 1879.

By ROBERT BARNES, M.D., F.R.C.P.

THE theme which I have been invited by the Council to bring before the Society for discussion is the following:—"On the use of the Forceps and its Alternatives in Lingering Labour."

It was obviously necessary to confine the discussion within certain definite boundaries, not alone in order to avoid irrelevant and wasteful debate, but also as the most essential condition for arriving at clear and useful conclusions.

And when we refer to "conclusions" as the result of our discussions we shall not aim at the framing of conclusions which shall be final or absolute, or have the force of law. We could not engage in a more vain and injurious undertaking. Science is in her very essence progressive. Freedom from arbitrary dogmas is the condition of her life. It is that freedom which impels or invites every one of us to try this, like every other scientific question, by the patient and candid observation of nature, acknowledging no mere tradition or authority. The true function of a Society is to gather together and then to diffuse knowledge; to encourage independent inquiry; to survey from time to time, by the light of mutual reflection, the positions attained; and thus to seek sound guidance in the application of our knowledge to our practical duties.

Ever so superficial a retrospect over the history of the forceps will show us that more than once the use of this instrument has been defined in the most absolute and inflexible terms. And although arbitrary laws may have met with wide obedience, many men have always refused to be fettered by them. Some of these rebels may have carried their contempt against authority too far; they may have run into contrary, even licentious extremes. But they are at any rate entitled to this praise, that they have kept alive the spirit of independence, have compelled us to think over again, to doubt whether the laws we have been summoned to submit to were the expression of absolute wisdom.

At this moment practice differs widely. And this difference is not so much the result of the different teaching of the schools, as it is of local and individual accidents. Side by side we see men using the forceps once in every nine or ten cases, or oftener still; and others using it, perhaps, once in a hundred cases or even less; and this under conditions that offer no explanation of the difference in practice. Looking at the actual practice of the day, we may thus see repeated and continued the lessons of history. From the epoch of the invention of the forceps nearly, the same diversity of practice has existed. Indeed, during the early days of the forceps—speaking of this country, the birthplace of the forceps—it seems probable that the forceps was more commonly employed than it was thirty or forty years ago. Now and then the use has become so free as to take the character of abuse; and then an outcry has arisen, followed by reaction and restriction. Thus, preceding and during the time of William Hunter, Osborne, and Denman, instrumental interference was frequently had recourse to unnecessarily, and unskilfully we may assume, since these illustrious men thought it right to exert all their authority in discouraging the use of instruments, and in inculcating blind faith in nature as the better way. So earnest was their zeal, so commanding was their authority, that men were driven back into the opposite extreme of supine inaction. Rules were laid down, and widely obeyed, which too frequently allowed parturient women to drift into danger, injury, and death. Thirty years ago, even, the law of Denman was taught that enjoined us to wait until the child's head had rested for six hours on the perineum before resorting to the forceps; and this policy of procrastination was scarcely mitigated by the associated rule that "no case was to be esteemed eligible for the forceps unless the ear of the child could be distinctly felt." Many of us may remember this sort of teaching. Its influence may have been beneficial in repressing reckless and unskilful operations; but, as might be expected, the neglect of the forceps has entailed the very dangers for which it was denounced. The casuist may balance the degrees of culpability of the man who, seeking to help a woman, injures or destroys her, and of him who, trusting alone to hope, lets a woman sink into perilous exhaustion and death. The result to the victim is the same. And we, weighing the men in the scales of science, may see more hope for humanity in the enterprise of the man who acts, than in the blind helplessness of the man who does nothing. The first may improve—he may acquire judgment and skill; for the man who is tied hand and mind to a policy of waiting, there is no hope.

So far is the question of the application of the forceps from being settled, that when we come to examine it critically, we find ourselves brought face to face with some of the most difficult problems in obstetric practice.

The limitation of our inquiry to "the use of the forceps or its alternatives in lingering labour," implies the exclusion from our consideration—

1. Of those cases in which acceleration of labour is indicated by convulsions, by hæmorrhage, by other complications, as syncope, dyspnœa, apoplexy.

2. Of those cases in which the child is in danger from prolapse of the umbilical cord, or other causes independent of protracted labour.

In studying the question before us, we are naturally drawn to institute a comparison between the results to mother and child, as to injury and death, under the two opposite practices of free resort to the forceps, or to its alternatives; these alternatives being understood to comprise—(1) simple inaction, or expectancy; (2) ergot or other oxytocics; (3) the fillet or lever; (4) compression of the uterus, or other manœuvres, not instrumental.

This, the statistical method, which seems to promise so much, is not free from objection. It is, in the first place, not easy to obtain facts that are fairly comparable. And even could this postulate be secured, it would not follow that we could decide for or against the free use of the forceps because the injuries and deaths of mother and infant were more frequent under resort to the forceps or its alternatives.

This brings us to the definition of the state which demands or justifies interference. How shall we define this state?

Several reasons concur in leading me to quote the rules of Collins, the younger Ramsbotham, and George Johnston.

Collins gives the following as the conditions for using the forceps:—"Generally speaking, so long as the pulse remains good, the bowels and bladder act well, the soft parts remain free from severe pressure, and uterine action continues so as to cause the presenting part to descend ever so slowly, the patient having no pain in the abdomen on pressure, or local distress, the child at the same time being alive, as indicated by the stethoscope, I am satisfied no attempt should be made to deliver with instruments, and that he who does so wantonly exposes both mother and child to danger. . . . The necessity alone of freeing our patient from impending or present danger should induce us to resort to instruments."

Ramsbotham says: "If pains are subsiding gradually or have disappeared, strength failing, spirits sinking, countenance anxious, pulse 120 or more, tongue coated, dry, brown, or raspy, two or three rigors, tenderness on pressing abdomen, green discharge, preternatural soreness of vulva, heat and swelling of vagina, head locked, vomiting, hurried breathing, delirium, or coldness of extremities, *then delivery must of necessity be effected*, and we should be acting most injudiciously to allow the case to proceed until the four last-named symptoms appear without relief being offered. . . . But so long as the uterus is contracting with energy, the strength and spirits good, the countenance natural and cheerful, pulse under 100, tongue and mouth moist and clean, no vomiting or rigors or heat, swelling or tenderness of parts, so long as the head retreats in the absence and advances in the presence of pain, provided there be any progress in the labour from hour to hour, so long there can be no necessity for instrumental aid."

George Johnston states the case as follows (1872):—"We have come to the conclusion, and our established rule is, that so long as nature is able to effect its purpose without prejudice to the constitution of the patient, danger to the soft parts or the life of the child, we are in duty bound to allow the course of labour to proceed. But as soon as we find the natural efforts are beginning to fail, and after having tried the milder means for relaxing the parts or

stimulating the uterus to increased action, and the desired effects not being produced, we consider we are justified in adopting prompter measures, and by our timely assistance relieve the sufferer from her distress and danger, and her offspring from an imminent death."

Strictly analysed and compared, it will be found that the rules for interference as laid down by Collins, Ramsbotham, and George Johnston, representing as they do three distinct epochs and schools of practice, are all but identical.

How men recognising the same principles could diverge so widely in practice is a curious study. It constitutes the very kernel of our discussion.

Collins, in the Rotunda Hospital, in the years 1826 to 1833, used the forceps or lever once in 607 cases. Johnston, in the same Hospital, in the years 1868 to 1875, used the forceps once in every ten or eleven labours.

Somewhat intermediate in time between Collins and George Johnston, and practising under conditions somewhat different, stands Francis Ramsbotham, who with David Davis may fairly be said to have held the foremost position during their time in this metropolis for judgment, experience, and skill. Ramsbotham applied the forceps, in the work of the Royal Maternity Charity (1828 to 1850) once in 671 labours. There is no doubt he would have used the forceps more frequently had the cases all been under his control from first to last, as is the case in a lying-in hospital. But he could only act when called for by a midwife. Thus the midwife had exhausted the alternatives, and we may take the residuum in which the forceps was applied as representing practically the proportion of cases in which resort to the forceps was not a matter of election, but of necessity. Now, if we compare Ramsbotham's experience with Collins's, we find both using the forceps in public practice—the one in a hospital, the other in domiciles—at nearly the same rate of frequency. This lends strength to the conjecture that, other alternatives being duly tried, the proportion of cases that imperatively demand the forceps does not exceed one in five hundred. If this *primâ facie* case be supported by evidence that the damage and mortality endured by mothers and children compare favourably with the results of more active practice—say with Dr. Johnston's,—then we may be led to conclude that in very many cases Dr. Johnston resorted to the forceps when there was *no necessity* for the operation—that is to say, when the alternatives, as waiting or ergot, would have effected delivery with equal safety.

This does not carry the condemnation of Dr. Johnston's practice, for the question would still remain, after the establishment of the fact that the ultimate results to mother and child were similar under the practice of Collins, Ramsbotham, and Johnston, whether the forceps would not have been better in many of Collins's and Ramsbotham's cases than the alternatives which were trusted to. For example, there can be little doubt that in many cases under Collins and Ramsbotham waiting was carried to the verge of danger, whilst in Johnston's cases the dangers, immediate and remote, of waiting were averted, and the individual and aggregate suffering in actual pain was immensely curtailed. We must not forget that the forceps is not simply an operation of necessity, but that it is pre-eminently an operation of election.

Passing from public practice to private practice, we find in the first volume of our *Transactions* the records of two men of the highest stamp—the one, Robert Dunn, who practised in London; the other, W. H. Bailey, who practised in Thetford—that is, in a rural district. It may safely be assumed that both these men conducted their practices conscientiously and skilfully, and no one will doubt that they have recorded their experience faithfully. During twenty years ending with 1850, Dunn used the forceps twenty times, or once in 190 cases. He "often used ergot." He had ten cases of craniotomy. He says: "Not in one single instance has tedious or difficult labour proved fatal to mother or child." But two deaths after craniotomy must be considered to qualify this statement.

Bailey, during the fifty years ending in 1859, used the forceps, it is presumed, very rarely. He does not specify how often. He had only two cases of embryotomy.

Comparing Dunn and Bailey, we see, as might be expected, a marked contrast between the obstetric histories of a town and of a rural population. Dunn had a far larger proportion of difficult cases. Dunn's embryotomy cases were 1 in 400, whilst Bailey's were only 1 in 3200. Dunn's maternal deaths were 1 in 150 nearly, and Bailey's 1 in 430 only. It is a legitimate conjecture that Bailey and Dunn worked on very similar rules. The difference in their practice and in their results is almost certainly due to the difference in the subjects they had to deal with. Another caution in the use of statistics.

In discussing our question, we are met by the necessity of drawing a line between what McClintock called the "high" and the "low" forceps operations. The low operation takes simply those cases in which the head has entered the pelvic cavity; the high operation applies to those cases in which the head is seized at or above the brim. The distinction is imperative. The low operation may be accomplished by the short or single curved forceps. It is usually a very simple proceeding. The presence of the head in the pelvis implies, generally at least, that there is no obstacle from disproportion to be overcome, that the resistance of the cervix uteri and vagina has been overcome, and that there remains little or nothing beyond the resistance of the vulva. We merely want a little *vis a tergo* to complete expulsion. In this conjuncture some will prefer ergot, some will prefer forceps. My own decision has long been in favour of the forceps. I hesitate to affirm that the use of ergot is wrong. But the following reasons for preferring the forceps are, to my mind, sufficient:—1. Since the publication of Hardy and McClintock's report of their researches at the Rotunda, which showed that unless the child were born within a short time after the action of ergot it was very likely to be born dead, I have turned my attention to this point, and have seen abundant confirmation of the accuracy of their observations. 2. The action of ergot upon the uterus is uncertain. You want a certain amount of uterine action. You give ergot, and the desired result may ensue; but it may not—you may have too much, or too little. In the first event you have evoked a Frankenstein whose brute violence you can neither subdue nor regulate. The force which should be delicately adjusted to the resistance is in excess; and then you have to fear the very dangers of lingering labour—rupture of the uterus, other injury to the soft parts, and the death of the child—which you called in the ergot to avert. I prefer to enlist an ally which will do exactly what I want, and no more. 3. In a large proportion of cases of arrest of the head in the pelvis, the arrest is due to malposition of the head—for example, to occipito-posterior positions. The occiput turns up under the sacral promontory, and then the driving force propagated along the child's spine tells in a false direction, tending to roll the head more over on its transverse axis. It tends, in short, to revolve in extension around the promontory as a centre, instead of round the symphysis pubis. The driving force is wasted. Fortunately it often ceases or moderates. It is utterly unscientific, even dangerous, to goad it by ergot. The forceps is the true and effective help. It not only supplies the wanting force, but gives that force its proper direction, under conditions in the highest degree adapted to secure the well-being of mother and child.

I have now set forth what appears to me to be the first point of discussion—namely, the choice of the forceps or of its alternatives, when the head is arrested in the pelvis.

I apprehend that there is not much room for disagreement upon this point. It is practically solved. The low operation is very generally in use. And provided reasonable discretion dictate the line of acting, and fair skill be used with a good instrument, this operation will often save the mother much present suffering, will in many cases lessen or remove the risk of injury to the soft parts, lessen the risk of septicæmic fever, and promote the safety of the child. It is very easy indeed to apply the forceps in cases of this category unnecessarily. But, on the whole, it may be questioned whether, at least in dealing with women of weak fibre, nursed in luxury, more harm may not ensue from habitual inaction than from over-readiness to operate.

In discussing the uses of the forceps, we are naturally led to inquire what its powers are—what it can do?

The forces of the forceps are—(1) tractile; (2) leverage; (3) compression or moulding of the head.

The short forceps and the long forceps differ widely in the degrees in which they enjoy these forces.

The short forceps has but moderate tractile power, a limited leverage power, and scarcely any appreciable compressive power apart from what it derives from the external compression of the soft parts upon its blades.

But the long forceps possesses all three powers in a high degree. 1. It admits of tractile power greater than that of the natural expulsive power. 2. Its leverage power is greater, and may be often effective at a point beyond reach of the short forceps. 3. Its compressive power may be almost indefinitely increased, according to the construction of the instrument.

Now, since all these forces, or equivalents of them, are exerted by nature, it is but logical to employ them in cases where nature fails. In a well-devised and executed forceps-operation something is gained from every one of these forces. The best forceps will be that which enables the operator to utilise all these forces in due harmony. Thus, excess of traction is avoided by the aid of judicious leverage and compression. Excess of compression is avoided by judicious traction and leverage. Excess of traction and of compression—involving, the one, risk to the mother, the other, risk to the child—both admit of important mitigation by external compression and pushing, imitating the driving force of nature. And thus the highest degree of safety is secured to both mother and child. To throw away these powers possessed in the highest degree by the long forceps is to abdicate a vital part of one of the most beneficent powers that science has ever put into our hands.

I have only a word of caution about the use of leverage in the high operation. It must be applied with care and moderation. Its advantages are not so manifest as in the low operation. But those who declaim against leverage absolutely must be reminded that to avoid it altogether is a physical impossibility. The great difficulty in practice is to find the equilibrium between the powers of the forceps and the resistance to be overcome.

We now come, then, to the question of the *high operation*, the great point upon which the contest turns. Here problems comparatively unknown in connexion with the low operation come into consideration. In the low operation we are mostly concerned with the second stage of labour, when the expulsion of the child is partly accomplished. When the high operation is in question we have commonly to act during the first stage of labour, when the child has made little or no progress, and therefore when in many cases the cervix uteri is imperfectly expanded. The head has to be sought and seized at or above the pelvic brim. This of course demands a long and double-curved forceps. There is a greater complication of factors; far more judgment and skill are required in deciding upon and in carrying out the operation. *What are the conditions which demand or justify the high operation?* I will first cite the plea of Johnston: "I became," says Johnston, "an advocate for the more frequent use of the forceps . . . . from having witnessed on many occasions the direful results arising from allowing the labour to continue for hours unrelieved. The painful effects of such a system became evident in numerous instances of inflammation and sloughing of the vagina, ruptured uterus, and other accidents, too often ending in fatal consequences." He especially dwells upon the injurious effects produced by long pressure of the head on the soft parts in cases where the liquor amnii has escaped at the commencement of labour, and the danger that arises from the head pressing on the expanded cervix uteri before the os is fully dilated. He asks: "Why should we permit a woman to undergo hours of torture? . . . . Why should she be allowed to waste her strength and incur the risks consequent upon the long pressure of the head upon the soft parts, the tendency to inflammation and sloughing of the vagina, or the danger of rupture of the uterus, not to speak of *the poisonous miasm* that emanates from an inflammatory state of the passages, the result of tedious labour, and which is one of the fertile causes of puerperal fever . . . . attributed by some to the influence of being confined in a large maternity?"

All this argument applies to the low operation; but, tested by Johnston's practice, it applies chiefly to the high operation.

Johnston is brought into direct collision with those authorities who teach that during the first stage of labour little mischief from pressure on the soft parts (we of course exclude cases of disproportion), and little other mischief, is to be apprehended during the first stage of labour; in short, that the term "lingering labour" has no practical significance until we arrive at the second stage. If we accept this doctrine the question is solved—our discussion is at an end; Dr. Johnston and those who advocate the high operation are out of court, or nearly so. But is this sentence just? Must we go back to the narrow dicta of William Hunter, Osborne, and Denman? Must we declare that Smellie, Perfect, David Davis, Francis Ramsbotham, to say nothing of our predecessors and contemporaries in Europe and America, who so frequently resort to the high operation, are all wrong? We should surely repudiate such a sentence, and none the less because many of us would be included in the same condemnation.

It may be at once admitted that there are cases of lingering labour during the first stage—that is, before the cervix uteri is fully expanded, and before the child's head has entered the pelvis.

One order of such cases may be quickly dismissed. Those in which the uterus is more or less paralysed or disordered in its action by excess of liquor amnii, by the presence of twins or too large a child, or by extreme rigidity of the cervix uteri. The first difficulty is often got over by simple puncture of the membranes. But not seldom the evacuation is not complete enough; the head drops upon the unexpanded os uteri, and blocks the way of escape like a ball-valve, and labour is suspended, "lingering." In such cases I have often obtained quick release by introducing one blade of the forceps. This lifts the head off the cervix, forms a channel for the flow of the ponded-up waters, and calls out the reserved diastaltic function. If the uterus and system have been so far weakened as not to respond to this tentative measure, the second blade is introduced, and the proper action of the forceps is invoked.

Secondly, labour also may become lingering in the first stage because the *child is dead*. When the child has been dead some time, it has lost its resiliency, and driving force acting upon it tends to compress it into a ball, instead of propelling it onwards. Craniotomy would be the proper alternative here. But until we know the child is dead, the forceps is preferable. And *monsters* commonly cause lingering labour for analogous reasons.

Then we come to a third order of cases, in which the liquor amnii has sufficiently escaped, and in which the head rests upon the brim, or is only partially engaged within the brim, and the cervix uteri is imperfectly expanded. We may here call to mind the general fact that the full dilatation of the cervix is effected by the eccentric pressure of the bag of membranes and of the child's head, and that consequently we do not expect to find full dilatation until the head can engage in the pelvic cavity. It is true that in some cases of very protracted labour, the uterus, shortening itself under long-continued efforts, may open, whilst the head is delayed above the brim. But the fact remains generally true that so long as the head is above the brim the cervix is only imperfectly expanded. Hence it follows that to apply the forceps to the head above the brim the blades must generally be passed through an imperfectly dilated cervix. We must recognise this fact because it is a direct infringement of the old canon never to use the forceps until the os is fully expanded. We see in this fact also one broad distinction between the low and the high operation.

What are the cases, the liquor amnii having escaped, the head resting on the pelvic brim, and the cervix imperfectly expanded, which call for the forceps or its alternatives? We may clear the ground by saying that the first alternative to try is patience and reasonable time. Ergot is open to even graver objection in this case than when the head is in the pelvis. Without condemning the practice of those who do use it, I may be permitted to repeat that I myself would not use it. Delay at the brim may be due to minor degrees of disproportion, and this is not always easy to diagnose. Egot, therefore, may be injurious as well as uncertain.

There is another order of cases in which the head is delayed at the brim, which involves the conditions of lingering labour—I mean cases of overhanging belly and uterus, in which the abdominal muscles fail to keep the long axes of the uterus and child in due correlation with the axis of the pelvis. Here the forceps is especially useful, even though the cervix be not fully dilated. The alternative is turning. Both are facilitated by delivery in the dorsal posture, and by compression of the abdomen.

We may now apply the test, What is lingering labour? For it will scarcely be denied that, if the signs of lingering labour are manifested whilst the head is above the brim, we are as much called upon to interfere as when the same signs

are manifested, the head being in the pelvic cavity. And unquestionably these signs may occur; but they will occur much more rarely than at a later period—that is, during the second stage of labour. To state the proposition is almost to prove it. Fatigue, exhaustion, is a question of time. It is not necessary, then, to insist that a patient's strength may take her easily through the first stage, and yet be inadequate to carry her through the second: just as a pedestrian may do his first ten miles without distress, and yet break down during the next lap. It may be true that the first stage presents the greater difficulties, but then these are encountered by fresher powers.

Let us take it, then, as granted that the high operation is sometimes called for. But experience, as recorded by Collins, Ramsbotham, and a host of others, compels us to affirm that the *necessity for this operation* cannot be frequent. The frequent resort to the operation, then, must rest for its chief justification upon its *utility*, and in utility is included *safety*. Apart from the cases of necessity, when is the operation useful? and what are its dangers—I mean those pertaining to the operation itself?

I will first take the question of danger, assuming, of course, reasonable skill. The forceps has to be introduced through an imperfectly expanded cervix. Dr. Johnston admits danger. He is careful to say, "I must here caution the practitioner that this operation is not without danger in unskilful hands, by whom it should never be attempted." I am disposed to go further, and say that this operation is not without danger even in skilful hands. The width of the fenestra of the forceps is about two inches. When both blades are applied to the head we have a globe measuring generally more than four inches in diameter to bring through the os uteri. But the os uteri may be three inches or less in diameter. We must therefore apply the blades high above the os uteri. This is generally not very difficult. I have often done it. The difficulty comes later. You begin extraction. If the os is easily dilatable—and sometimes it is so—it is dilated after a process closely resembling that of nature. The head-globe is made to open it. But it frequently happens that the os is not so easily dilatable. The natural order and process of labour has been disturbed, partly, it may be, by the difficulty which made it lingering, and partly by the interference of the operator. This disturbance is very apt to entail, if not spasmodic ridigity, at any rate a passive unyieldingness of the cervix. Thus, what happens if you put on traction? The whole uterus and child are dragged down together some way, and sometimes very far towards the pelvic outlet. The blades of the forceps divergent, with the head between them, will not come through the narrower os. Traction under these conditions must often be continued for a long time—an hour or more—before the head will come through. And during all this time the pressure upon the inner surface of the lower segment of the uterus and upon the thin edge of the os uteri is very great, sometimes more than it will bear with impunity. Some amount of bruising is inevitable—more, perhaps, than it would have undergone if left to nature,—and not seldom, as I know, the os uteri is torn. And this also I know, that during this artificial dilatation of the cervix the suffering of the woman is greater than when the dilatation is effected under the natural forces. Then, again, the disturbance of the natural process of parturition, the due sequence of its acts being perverted, entails after-trouble. I am sure that the disposition to retention of the placenta and hæmorrhage is increased. Now, these are precisely the effects of lingering labour which we urge as our excuse for operating. What have we gained?

This objection applies with peculiar force to primiparæ. The cases must be extremely rare in which there is any danger from lingering labour in the first stage, apart, of course, from obstruction due to disproportion, or malposition. Yet we find Dr. Johnston applying the forceps to 123 primiparæ, before the os uteri was fully dilated; in 103 there was "early rupture of the membranes." Of these, in 64 cases the head was above or in the brim; 9 of the women died, "3 from convulsions; 2 of gastro-enteritis; 1, sloughing of vagina; 1, peritonitis; 1, uterine diphtheritis; 1, distress of mind. In none of these cases at post-mortem examination was there seen any injury to the os uteri beyond the ordinary fissuring that would take place in first labours." Accept this, as I do, without reserve; still, that an undue degree of contusion was caused, that suffering and shock from the violent derangement of the process of labour were increased, and that these conditions may have influenced the mortality, we may be permitted to suspect.

A most serious objection to the high operation lies in the difficulty of diagnosing whether the case before us is one that fairly admits of the operation being carried out. There are, for example, minor degrees of obstruction, from slight pelvic contraction, from rigidity of the cervix uteri, or from slight excess in size or want of plasticity of the child's head, which the long forceps may succeed in overcoming. We are, in fact, on the very border-line of the dominion of the forceps; and we cannot always tell, until we try, whether the forceps is equal to the trial or not. In the case of primiparæ this point is especially difficult to determine. It may to some extent be determined—first, by exploring the brim of the pelvis fairly by the hand under anæsthesia; and, secondly, by a tentative use of the forceps. We can but give it up for turning or craniotomy if it fail.

We may do much to overcome rigidity of the cervix uteri by copious warm water irrigation and the hydrostatic bags.

There is an argument which the advocates for the free use of the forceps urge, and justly urge, which claims the most earnest attention. Neglect of the forceps entails abuse of craniotomy. You wait so long that at last the child has to be sacrificed in order to save the mother. A careful survey of the annals of obstetric practice justifies this conclusion. I have drawn up a table to illustrate this point. Thus, Collins's craniotomy cases were 1 in 211, whilst his forceps cases were 1 in 607; Ramsbotham's craniotomy cases were 1 in 802, his forceps cases 1 in 670; Johnston's craniotomies were 1 in 281, his forceps cases 1 in 10½. These refer to the ordinary run of public practice. But if we take the records of the most ardent opponent of the forceps, the late Robert Lee, we shall have the most striking example of what a doctrine carried out to the most rigorous extreme will lead to in practice. During an active consultation practice, ending in 1863, Dr. Lee performed craniotomy in 186 cases, and used the forceps only in 53. He never used the long forceps. No one can peruse the histories of his cases without the painful conviction that in many instances the long forceps might, with advantage to the mother as well as to the child, have been substituted for craniotomy. It is true that this terrible experience is the record of consultation practice. He was commonly called in to cases which had drifted within the confines of danger. We must further remember that he practised during a reign of terror, which he himself had done more than any man to create, when to use the long forceps was held to be almost a criminal act. But, making the most liberal allowance for all this—admitting that he would meet with a larger proportion of desperate cases than can possibly occur again,—the preponderance of the perforator over the forceps will still strike us as appalling.

I may here state that my experience of the comparative resort to the forceps and craniotomy, and of the mortality of mothers and children in the practice of the Royal Maternity Charity, is very similar to that of Ramsbotham, whom I succeeded; and I think I may appeal to my successor, Dr. Roper, to support the proposition that the statistics of this great institution still bear the same evidence.

I regret that leisure utterly fails me to draw out an analysis of my forceps and craniotomy operations during an active consultation-practice of twenty-five years, but I may safely venture on the statement that my forceps and turning cases greatly outweigh the craniotomies. Contrasted with craniotomy, the forceps is frequently an elective alternative operation. And so, again, turning is not seldom an elective alternative against craniotomy. To have demonstrated this I take to be one of the many claims to the gratitude of mankind, and to a place in Westminster Abbey, which Sir James Simpson has established.

Taking a scientific point of view, craniotomy should never be the alternative for the forceps. The dominion of this sacrificial operation is totally distinct from that of the conservative operation of the forceps. To apply a recent famous political expression, we may take it that there is a "scientific frontier" against craniotomy. We have not yet secured this frontier. We may never acquire it absolutely. But it nevertheless exists potentially; and it is our duty to strive after it by constantly advancing the outposts of the forceps and of turning.

Table showing Relative Frequency of Forceps and Craniotomy Operations, and the Mortality of Mothers and Children.

	Total labours.	Forceps cases.	Craniotomy.	Mothers. Total deaths.	Children. Total stillborn, exclusive of premature.	Proportion of forceps to total.	Proportion of craniotomy to total.
Collins (1736-1838), Rotunda Hospital	16,414	27 (4 deaths)	79 (15 deaths)	164 (Prop. 1·0)	826 (Prop. 5·0)	1 in 607	1 in 211
Ramsbotham (1838-1850), Royal Maternity Charity	48,998	73 (3 deaths)	60 (6 deaths)	220 (Prop. 0·41)	1,822 (Prop. 3·7)	1 in 670	1 in 801
Dunn (1830-1850), London private practice	4,049	20 (0 [?] deaths)	10 (2 deaths)	27 (Prop. 0·67)	170 (Prop. 4·1)	1 in 202½	1 in 404½
Johnston (1868-1878), Rotunda Hospital	7,862	752 (58 deaths)	28 (7 deaths)	179 (Prop. 2·3)	470 (!) (Estimated 6·1)	1 in 10½	1 in 281

Robert Lee's Consultation Practice (London).

	Total forceps.		Craniotomy.	
		Died.		Died.
First period, "Clinical Midwifery," ending 1848	48	11	96	14
Second period, "Consultations in Midwifery," ending 1863	5	1	91	5
Totals	53	12	186	19

Dr. Lee's book gives 80 forceps; 32 are deducted, either because R. Lee disapproved of operation or finished by craniotomy. Thus R. Lee's forceps cases stand to his craniotomy cases as 1 to 3½.

I beg leave to conclude this rapid and inadequate review of a difficult question by stating the following propositions as presenting the points that chiefly challenge discussion:—

1. In lingering labour, when the head is in the pelvic cavity, the forceps is better than its alternatives.

2. In lingering labour, when the head is engaged in the pelvic brim, and when it is known that the pelvis is well formed, the forceps is better than its alternatives.

3. In lingering labour, when the head is resting on the pelvic brim, the liquor amnii discharged, and it is known, either by exploring with the hand or by other means, that there is no disproportion, or only a slight degree of disproportion, even although the cervix uteri is not fully dilated, the forceps will generally be better than its alternatives.

4. In proportion as the head is arrested high in the pelvis, in the brim, or above the brim, the necessity, the utility, and safety of the forceps become less frequent.

5. As a corollary from the preceding proposition, increasing caution in determining on the use of the forceps, and greater skill in carrying out the operation, are called for.

In most things there is a middle way. "Ni jamais, ni toujours," is a proverb full of wisdom. I cannot better illustrate the wisdom of deducing the greatest good from over-caution on the one hand, and from too bold enterprise on the other, than by citing the precept and practice of Boër. This famous surgeon, having witnessed in Paris the extreme activity of French midwifery, and in London the too procrastinating practice of England, recognised the middle course as the best, constructed his forceps of medium length, saying, "Everything is not to be taken away from Nature, neither is everything to be left to her."

OBSERVATIONS ON THE SUBJECT OF CROUP AND DIPHTHERIA.

MADE AT THE

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

By W. HOWSHIP DICKINSON, M.D., F.R.C.P.,
Physician to St. George's Hospital, and the Hospital for Sick Children.

Dr. Dickinson, who was chairman of the Committee appointed by the Royal Medical and Chirurgical Society, wound up the debate on Croup and Diphtheria as follows:—I will say a few words, Mr. President, in conclusion of this debate, but they shall be very few—not only because of the advanced period of the evening, but also because my position as Chairman of the Committee is accidental, owing to the retirement from it of an older and abler member of the Society, who left it to take the chair which you, sir, now occupy. I think that, whatever credit may be given to our report, its highest claim to consideration is this—that it has given rise to one of the most important debates which ever took place under the auspices of this Society. Several speakers appear to be under the impression that the Committee has given no certain opinion about anything—has said much, but nothing to the purpose. I will therefore recapitulate, with all convenient brevity, what it is that we suppose ourselves to have made out. First, I must join issue with my respected friend, Dr. Wilks. I never was more surprised in my life than to hear him say that he thought the term "croup" a sufficient and satisfactory definition of a disease. The fact is that croup only names a group of symptoms, it does not define a disease. It includes two most different conditions, which require different or even opposite treatment, and of which one is nearly always fatal, and the other nearly always not so. The most strongly marked distinction which came out in the course of our inquiry is that between membranous and non-membranous affections of the larynx—and both are called croup. Membranous affections of the larynx, be they of what sort they may, are fatal in a proportion of about 90 per cent. We have always known that these affections—whether we call them croup or diphtheria—are very fatal; but I was hardly prepared for the terrible mortality which our tabulations disclosed. Dr. Gee's table from the books of the Hospital for Sick Children showed that of sixty-three children affected with membranous inflammation involving the larynx, only three recovered. Ten per cent. of recovery is about the average, and even of this small proportion there are few who survive save with the intervention of tracheotomy. It might be suggested that this exaggerates the danger of the disease, in consequence of the inclusion of post-mortem evidence. Membrane was found after death which would not otherwise have been seen, and thus the case was classed as membranous only because it was fatal. If the child had got well, the membrane might never have been found, and the case been placed in another category. But the fact is that we get to much the same result, even though post-mortem evidence be entirely excluded. If a child has laryngeal obstruction, and membrane is seen in its throat, the chances are that it will either die or be tracheotomised, and not improbably both. Putting aside all post-mortem evidence, one of our tables presented a series of thirty-two such cases, in which membrane was seen during life: among them were eight recoveries, but only two without the operation. Thus it is clear, however it is viewed, that membranous inflammation of the larynx—without as yet dealing with its possible separation into diphtheritic and non-diphtheritic—is a disorder of extreme deadliness. We will now turn to another picture. There is a class of cases, not always so readily distinguished from those of membranous disease, in which dyspnœa is often severe and protracted—often so much so as to suggest operative relief, but in which no membrane ever comes to light,—and which almost invariably end in recovery; not quite invariably, for in a very large recorded experience a case is now and then to be found in which non-membranous croup has ended fatally. The Hospital for Sick Children provides one such case; Guy's Hospital

has given us three; Dr. Johnson has mentioned two in the course of the debate; but these are all the instances which can be got together out of a great field of pathological experience in which croup—using the term in its general sense—has proved fatal without the formation of membrane. Thus non-membranous croup is as remarkable for its favourable issue as membranous croup is for the reverse. It might be suggested that non-membranous croup only differs from the membranous in being a smaller degree of the same sort of change, but there are several reasons which show that the difference is not in degree, but in kind. Many of the non-membranous cases are very severe—as I said, but narrowly escaping tracheotomy; some are long-continued, so that it is not the mildness or shortness of the attack that makes the difference. Then other distinctions show themselves: non-membranous croup attacks boys more than twice as often as girls; it is apt to recur in the same individual, which the membranous disorder is not; it is not attended with glandular swelling—though this distinction is not of great value, as glandular swelling is not necessarily present when the affection is membranous; and lastly, with non-membranous croup the urine is seldom albuminous, with the membranous affection it is albuminous more often than not. In eighteen non-membranous cases in which the urine was examined, it was found to be albuminous but twice; and even this statement exaggerates the frequency of albuminuria in the circumstances, for one of the two in which it was found was a case of somewhat incomplete and uncertain character. To say that albumen was found once in seventeen cases of non-membranous croup would probably be more accurate. But with the membranous affection albumen was found in more than two-thirds of the cases examined—in forty-nine out of sixty-six cases. Then another and very important difference is to be made out in the causation of each form of disease: non-membranous croup is often definitely traced to a distinct exposure to cold; membranous croup seldom so, if ever. It is often attributed to cold by mothers—they will attribute anything to cold,—but the association is never conclusive. On the other hand, we have indubitable evidence that the membranous affection is often produced by infection by foul air or foul water, or some such cause. Allowing, then, that non-membranous croup and membranous croup are distinct diseases, I will come to membranous croup by itself, and thus approach the especial object for which the Committee was formed. The question is, Have we here one affection, always the result of a specific poison, to be called diphtheria, or must we divide the class mainly into two—one diphtheritic and specific; the other, due to common inflammation, to be called membranous croup? I am bound to say that the evidence before us gives us no means of making any such division in the cases which ordinarily come before us. We must fully admit, however, that membranous laryngitis may come on in connexion with various other disorders—with scarlatina, measles, small-pox, and others,—and that it comes on also as a result of various accidental laryngeal irritations—boiling-water or steam, a cut in the throat, a pea in the larynx, acids, eau de Cologne, and so on; but these cases, whether in connexion with the exanthemata or accidental irritants, are few and exceptional. They may conceivably be explained, as Dr. Johnson has explained them, by the chance concurrence of the diphtheritic influence with the fever or accident. But it seems improbable that two separate causes of the same result should thus exactly concur. This is almost the only point in which I personally should not quite go with Dr. Johnson. Dr. Buchanan has calculated how often the various exanthematous diseases should fall together with diphtheria, supposing their concurrence to be a mere matter of chance. He shows that for one quarter of a year, for which he made the calculation, diphtheria fell with scarlatina about as often as chance would give independently of any pathological association. But the membranous affection fell with measles about twice too often to be thus explained. Dr. Buchanan probably would not attach any conclusive weight to figures thus derived from the bare nomination of the diseases in the Registrar-General's report, but so far as they go they are in favour of the view that certain conditions, apart from the special diphtheritic influence, may develope membrane in the air-passages. I think that the probability is that these febrile and accidental irritants are able themselves to produce the membrane in question. These instances are so few as to be numerically and practically unimportant; however, they are to be considered in forming a theory of membranous inflammation. But the existence of these cases prevents our dogmatising too absolutely. If we had dogmatised more we should have been more distinct in our conclusion, and should have met more exactly the views of some members of the Society. But we thought it better not to dogmatise beyond the dogmatism of nature. But, putting aside such cases as have been mentioned, we look in vain for any ground on which we can further divide the instances which daily occur of membranous inflammation of the air-passages. We cannot find any basis on which we can say that this case is of common inflammation, and that that is diphtheritic. We find no distinction in rough anatomy nor in microscopic. Dr. Barclay says he calls it croup, and regards it as simply inflammatory when the membrane is confined to the trachea. I have no doubt that he means when it is confined to the trachea and larynx [Dr. Barclay assented]. But our tables show instances in which the membrane has been so limited, and yet the disease has been clearly traced to infection, or poison conveyed by air or water. There was an escape of sewer-gas into one of the wards of the Hospital for Sick Children. This caused diarrhœa in some subjects, in one pharyngeal diphtheria, and in another laryngeal diphtheria, in which the membrane was limited, as far as could be ascertained, to below the epiglottis. The child recovered after tracheotomy, so that we had not the warrant of a post-mortem examination; but the evidence otherwise was very complete, and the tables give other examples of the same sort. And not only, as shown in such cases, may membranous inflammation of the larynx be produced by causes which set up pharyngeal diphtheria, but membranous inflammation, thus limited, may set up by infection, in another person, the pharyngeal disease—as in the instance Suckling, in one of our tables referred to by Sir W. Jenner. In the next place we have no warrant, as far as causation is concerned, to call some cases simply inflammatory, while others are diphtheritic. We find among these cases many which begin insidiously without ostensible cause; others in which drains, foul water, and insanitary surroundings are apparently responsible; but none in which cold can be, otherwise than somewhat vaguely, ascribed as the cause. Neither can we say that there is any distinction to be made out by the help of albuminuria or by any other test that we have been able to apply. The conclusion, then, is fairly this, that membranous inflammation of the larynx is in a vast majority of cases diphtheritic. The conclusion I believe to be fully warranted by the evidence before the Committee; it does not represent the belief (if I may speak of myself personally) that I began with, but I could not resist the evidence which the collected cases presented. To this conclusion there is a corollary which may not be out of place in a Society, before all things, of practical medicine. Seeing the difference of issue between non-membranous croup and laryngeal diphtheria, notwithstanding their frequent similarity in symptoms, it becomes of the highest importance, in every case of laryngeal inflammation, to ascertain as far as may be the presence or absence of membrane. I have already referred to the points of distinction, among which albuminuria holds an important place. If membrane be present and in the larynx, there is little hope but in tracheotomy, which therefore there is no reason to delay. But if membrane be not present the child will almost surely recover without operative intervention, notwithstanding that the symptoms be severe and even somewhat lasting. The operation in such a case can but be a needless and possibly a fatal complication. I should have wished to have said a word, did time permit, upon what was so ably advanced by Mr. Jonathan Hutchinson. No doubt diphtheria is less distinctly isolated than many other diseases, less so than scarlet fever or typhoid—we have said as much in our report—but it is communicable, and I do not see why it should not be called specific. It has near relations, however, to other disorders, more particularly to one which Mr. Hutchinson especially referred to—follicular tonsillitis, or the spotted throat. This may arise, as we have evidence to show, from the contagion of diphtheria; besides which, it may accompany diphtheria in the same person, the tonsils being spotted, while perhaps there is continuous membrane elsewhere. Then again we have curious evidence that diphtheria may be only one of several disorders engendered by one and the same cause. Of a group of persons who drank of a specially poisonous well—drainage going into it—two had obstinate diarrhœa, one erysipelas, one purulent ophthalmia, one pharyngeal and one laryngeal diphtheria. It only remains for me, in the name of the Committee, to thank the Society for the most ample and indulgent consideration which has been given to our report.

ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON

CONGELATION, FLUID PRESSURE, AND THE TREATMENT OF CANCER.

By JAMES ARNOTT, M.D.

(*Concluded from page* 396.)

TREATMENT OF CANCER.

Four local remedies are employed in the treatment of external cancer—namely, excision, cauterisation, pressure, and cold. The only general or constitutional remedy requiring notice is opium. Before considering these local measures it may be well to advert to the yet undetermined point, whether they are all or any of them to be regarded as curative as well as palliative remedies. This is denied by those who, from believing that cancer is a constitutional affection, attribute every allegation of a permanent cure having been effected by a local remedy to an error of diagnosis, to mistaking an innocent for a malignant tumour. But few, it may be presumed, would assert that means of this kind may not remove local affections in cancer, just as certain means applied locally are capable of removing local affections in scrofula and other unquestionably constitutional diseases. Granting that the disease is constitutional, it proves fatal only by its local effects or manifestations.

Very few surgeons now resort to the excision of a cancerous tumour with the hope of thereby curing the disease, but many do so for other purposes. Life may be prolonged by it, and there will be a cessation of suffering during the time which elapses between the excision of the tumour and its recurrence—a period, however, which, in the greater number of cases, does not exceed six months.

The principal objection to excision being employed as a palliative is the danger from the operation itself. The mortality from this has generally been estimated at about 12 per cent., but the rate is much higher when large incisions are made with a view of giving relief of longer duration.(a)

In those cases where, from peculiar circumstances, excision is desirable, this danger would be lessened by substituting congelation for chloroform in its performance, not so much on account of its safety as an anæsthetic, as from its being a preventive of erysipelas, which is the ordinary cause of a fatal issue; or if the incision is deep, and complete freedom from pain is required, by using both. The regulation of the temperature of the wound by the current apparatus is another important precaution.(b)

That the removal of cancerous growths from the breast by caustic is much safer than that effected by the knife, was satisfactorily proved by the extensive trial of this method some years ago at the Middlesex Hospital. The great objection to the treatment was the extreme and long enduring pain which it caused, but this (as I had afterwards the opportunity of showing at the same hospital) can be completely prevented by combining congelation with the caustic. By freezing a tumour for more than an hour before applying chloride of zinc, the benumbing produced was so complete and lasting as to prevent pain during the whole time required by repeated cauterisation for its removal. The details of the process are given in a tract by the writer, published soon afterwards, and in Mr. Collis's work on Cancer.

The principal objection to pressure as a remedy of cancer has been the difficulty of applying it and of regulating its degree from time to time, according to the feelings of the patient. For the pressure of a bandage, employed by Young and Récamier, Dr. Neil Arnott substituted, and with great advantage, the equal and more easily controllable pressure made by a spring and a slack cushion of air. Its effect, according to Dr. Walshe, was "the total removal of the morbid production in the most favourable cases," and in others "the gradual reduction of bulky masses to small, hard, flat patches or rounded nodules, which appear to be, both locally and generally, perfectly innocuous."(c)

It has been doubted whether the patches or nodules following the pressure are so innocuous as they have been represented, but the probability is that they are as inert as a bullet often is when bedded in the flesh, or as a permanent hard and bulky cicatrix. The following passage in Mr. Spencer Wells's work on Cancer bears on this question. "I saw," he says, "a lady a few weeks ago with a small tumour like a walnut in her breast, quite painless and not causing the least anxiety, which I saw nine years ago under the compression treatment; and it was then, to all appearance, a large cancerous tumour on the point of ulcerating. I have not the least doubt that if the tumour in that case had been removed, either by the knife or by caustic, the patient would have been dead seven or eight years ago."

It must at first sight appear extraordinary that, with such satisfactory proof of its value, this method should not have been more frequently employed. The reason probably is, that although pressure generally relieves pain from cancer, at other times pain is caused by it, and this is more likely to happen if the morbid part is heated by the cushion, and if there is any difficulty of moderating the pressure when the patient's feelings render this desirable. By the pressure of water, applied as will be presently described, both these difficulties are surmounted, and on that account, especially at the beginning of the treatment, or while the parts are irritable, the fluid pressure should be preferred.

Cold of various degrees and duration has been employed in cancer, for the relief of the pain caused by it, for dispersing the growth, and in a protracted application of an intense degree, either alone or combined with caustic, for destroying it.

Professor Broca of Paris institutes in his work on Tumours a minute inquiry into the origin of the use of cold in cancer, of which he gives the credit to the late eminent physician Dr. Hughes Bennett. It is a question of little importance, but having been brought forward by so distinguished a writer, it is necessary to mention some circumstances connected with it. In a treatise which I had published on the medical uses of heat and cold, an apparatus which has already been alluded to was described for attaining the important purpose of applying to any part of the surface of the body, and for any length of time, an uniform degree of temperature, combined, when it is desired, with any uniform degree of pressure. It consists of a thin waterproof cushion, through which, and two long flexible tubes connected with it, a slow current of water is made to pass from a capacious reservoir placed above it. In a review of the publication describing this apparatus, in the *Edinburgh Journal of Medical Science* for May, 1848 (of which Dr. Bennett was then the editor), its adoption is warmly recommended. It was of this apparatus that, two or three years afterwards, Dr. Bennett spoke, in his treatise on Cancer, as a means well adapted for its treatment by cold and pressure. He was the first to do so; I had not mentioned its use in this disease. The discovery that the tissues can be frozen without injury, and that congelation possesses remedial qualities in cancer and other diseases, was made at a later date. It is alluded to in the following extract from a subsequent work of Dr. Bennett:—"As a true anæsthetic or destroyer of local sensibility, congelation has been shown by Dr. James Arnott to be a most successful and manageable remedy. I have used it, in the way he has recommended, with excellent effect in a variety of local affections."(d)

Dr. Bennett's suggestion of a moderate degree of cold in the treatment of cancer was founded on the plausible theory, that as cold restrains animal and vegetable growth, it would have a similar effect on the germs or cells of a cancerous tumour. My employment of congelation in this disease was merely an illustration of a statement in the "Essay on Therapeutical Enquiry" (page 34), that the extension of the use of

(a) "Holmes's System of Surgery," second edition, vol. i., article "Cancer."

(b) Of late years much attention has been given to the subject of the treatment of operation wounds, and particularly to the injurious effects of air coming in contact with them. In my "Essay on Therapeutical Enquiry," published in 1845, it is suggested that, in order to avoid this contact, certain operations might be performed, and certain dressings of wounds made, under water. As regards cancerous limbs there is in the same work (page 51) another suggestion of a proceeding recently introduced by Professor Esmarch of Kiel, for preventing loss of blood in amputation by previously bandaging the limb. This loss, it is stated in the essay, might be prevented by "the blood being squeezed out of a limb by pressure methodically applied previously to amputation"; and the question is asked if "such a compression of the extremities and of the abdomen as would determine the blood to the upper cavities of the body, might not be of service in that class of cases for which the transfusion of blood has been recommended!" On one occasion I adopted the latter proceeding, with the effect, apparently, of saving the patient's life.

(c) "Treatise on the Nature and Treatment of Cancer."

(d) "Clinical Lectures on Practice of Physic," fourth edition, page 414.

a remedy which has proved effectual in one disease, to another of analogous character, is a principal source of improvement in practical medicine. I had had proof of its efficacy in other painful local affections. In my first employment of it in cancer, relief from excessive pain was the great object in view, but it did not seem improbable that some further benefit might be obtained, as from no other treatment are such palpable organic changes of a part produced, short of its destruction, as from congelation.

The benumbing effect of congelation, so valuable when it is employed as an anæsthetic in operations, constitutes a powerful alleviative of suffering in external cancer. It has several advantages over the administration of opium. The action of congelation is confined to the diseased part, whereas the persistent use of large doses of opium greatly disturbs the functions of the brain and digestive organs. Many patients would rather endure considerable pain than the stupefaction and sickness produced by opium.

The relief from intense pain by opium is not so complete as that from congelation, and is far less durable. M. Broca, in his treatise just mentioned, adverts particularly to this long cessation of pain, inferring from it that some other organic change is produced by congelation than that of the vessels and nerves. He concludes his observations on the subject by the following statement:—"After the facts which have come to my knowledge, after those which I myself have observed, I am able to affirm that in many cases this method is a powerful alleviative of the pain which complicates cancerous and other tumours. It is a resource little used in France, but one which to me appears very valuable."(e)

That congelation has been little used in England for this purpose is to be attributed to the difficulty of applying it in certain cases, especially when the uterus is the seat of the disease. The directions for this in the writer's treatise on Cancer have not always been attended to, and means have been employed quite incapable of effecting what is required. Amongst others, ether spray has been resorted to, which can only act as an anæsthetic when its evaporation is unimpeded. When a wide speculum can be introduced, permitting the application of a strong freezing mixture to the morbid part for a sufficient period, there will seldom be a failure; but when in the advanced stage of the disease this cannot be done, relief may still be obtained from a powerful frigorific solution passing as a stream through a double catheter of small size; and if the outer part of this catheter be covered by an inflatable membranous sheath, the solution will be confined to the inner part of the canal.

In congealing cancer of the breast or other outward parts, a small net of gauze or tulle may be used, containing the mixture; or, what answers much better, this may be applied by means of a gutta-percha cup fitted to the part. By the cup the smarting which might otherwise be complained of is in a great measure prevented, as the temperature can be very gradually reduced; and, if the cup is deep, pressure of any desired amount can be simultaneously made, either by the quantity of the mixture in the cup or by distending a bladder inserted in its upper part.

When cold has been employed for the dispersion of cancerous growths, it has been applied either in an intense or congealing degree for short periods, or in a moderate degree for periods of considerable duration. The following remarks relate to the latter mode. The use of congelation for dispersion having been fully described in the author's treatise on Cancer, it is unnecessary to advert to it on the present occasion. The combination of congelation with caustic, and the prolonged congelation of cancerous tumours for the purpose of destroying them, are also the subjects of another publication.

In the fifth volume of the *Transactions of the London Pathological Society*, there is an interesting report by Mr. Simon of his use of ice in a case of cancer of the breast at St. Thomas's Hospital. The tumour was of the size of an orange, and caused constant and severe pain. By the application of ice in a bladder every day for an hour or two, there was a rapid decrease of its size; and when the patient left the hospital after a stay of thirty-four days it was no longer perceptible, the pain had entirely ceased, and her general health had improved.

In his treatise on the Diagnosis and Treatment of Cancer, the late eminent surgeon, Mr. Maurice Collis, relates the results of this treatment by ice in the wards of the Meath Hospital in Dublin—"If its use," he says, "be well borne by the patient, it should be kept up for days or even for weeks: it is surprising how small a cancerous breast will become under its persistent use. It is most useful in the more chronic cases; and is one of the most valuable aids we possess of producing or keeping up the atrophic form of cancer—the form to which we may apply the term of a natural cure."

The preference of a moderate degree of cold to congelation, by the writers referred to, appears to have proceeded from the idea that this degree was safer than congelation. But the contrary is the fact. A long-continued congelation might destroy the tissues, and unless the application of ice be carefully watched, these may be frozen without the patient or the surgeon being, for a long time, aware of it. Sloughing has sometimes occurred when ice has been applied in an unguarded manner in strangulated hernia, but never when congelation of short and limited duration has been employed for this purpose, which it has often been with success.

Instead of ice, it would be safer to apply, for a limited time and under careful inspection, a greater degree of cold, or one closely approaching congelation, and to repeat the application after short intervals.

Moderate cold and pressure may be used in cancer simultaneously or alternately. When employed together there is not only the increased remedial effect proceeding from a combination of their respective powers, but they also assist each other's operation. The cold prevents irritation from pressure, and the pressure facilitates extension of the cold.

In concluding these observations on the application of cold in cancer, I cannot refrain from expressing regret that it has hitherto been so little employed either as a substitute for other plans of treatment in use, or by combination with them, as a corrector of their defects. But there is nothing singular in this delay. Few improvements in medicine have speedily overcome the opposition that has almost invariably attended their introduction. The cooling regimen in fever is an appropriate and striking example. The prejudice to congelation originating from the idea that it would destroy the tissues has long been overcome by its common use as an anæsthetic in operations; and that it would relieve excruciating pain from cancer by this anæsthetic property was so obvious as hardly to require confirmation from experience. Another impediment to its general use has been the fact that its efficient application is troublesome, and in some cases difficult. In requiring much care in some of its applications, it resembles the improved operation of ovariotomy and other surgical proceedings, which only prove successful when conducted with much pains. The importance of the object to be attained is surely a sufficient motive for taking this care in cancer, for in no other disease was improvement more required. The employment of cold in it is highly beneficial, while it is free from the objections to the ordinary remedial measures. In relieving pain it does not, like large doses of opium, quicken the progress of the disease by causing constitutional disturbance. It does not torture like caustic, nor put life in peril like excision.

(e) "Traité des Tumeurs," vol. i., page 445.

LARGE SINUS IN THE PERINEUM, EXPOSING THE URETHRA—OPERATION—CURE.

By E. L. HUSSEY, F.R.C.S. Eng.

A MAN, fifty-five years of age, formerly a farmer, reduced by debauchery and extravagance, was admitted into the Radcliffe Infirmary, under my care, August 25, 1852, with a large open sinus in the perineum, communicating with the urethra. It was the result of sloughing; but whether this was connected with stricture and disease of the urinary organs, or whether it was, as I rather think, from the effects of injury, I did not obtain a very clear account, nor did I learn how long it had existed. The urine was constantly dribbling from the sinus; and when the patient attempted to empty the bladder, the greater part of the urine escaped by this opening.

Upon being placed on a table with the perineum exposed, a large funnel-shaped cavity between the scrotum and the

anus was seen, having much the appearance of the female vulva. Upon separating the sides of this, a large opening was observed in the urethra, and the interior of the canal was bare to the extent of about an inch and a half.

At first I thought that the chasm might be closed, and union of the opposed surfaces obtained, by stimulating the granulations. To this end I applied acetum cantharidis freely several times; but the treatment had no beneficial effect. I therefore proceeded to further operation.

The man being placed in the usual position for lithotomy, the sides and edges of the opening were freely pared all round with a scalpel, and a new surface made by the removal of the whole of the granulating parts. A full-sized elastic catheter was then passed into the bladder through the penis, and the sides and edges of the wound were drawn together and closed over the catheter by several sutures of strong silk thread carried deeply across the opening by strong curved needles. The catheter was left in position, and the urine was allowed to escape through it. So effectively was the object attained, that no further discharge took place through the false canal.

The whole of the wound united by first intention. At the end of a week the catheter was changed, and replaced by another, and this other was allowed to remain for about another week.

On November 3 the man was discharged with the opening completely closed. For some months he was unable to empty the bladder without the help of a catheter. But before he passed from my observation he had recovered the full power both of retaining the urine and of passing it at will.

From inquiry I have since made of members of his family I believe that he had no return of his former complaint to the time of his death, which happened several years afterwards.

Remarks.—The success of the operation in this case is a remarkable illustration of the opinion of Dieffenbach, quoted by Mr. S. Cooper(a)—"The thin cutaneous edges of every urethral opening afford insignificant points of union; whereas the tendency of these parts to adhere by their under-surface to another raw surface is uncommonly strong. In other words, the tendency of a union of edges is slight, but to an adhesion of surface very powerful."

Oxford.

A PROPOSED STATUE OF PINEL.—The Paris Société Médico-Psychologique, having recently had before it the fact that no statue of the illustrious Pinel existed in the capital, appointed a committee to consider the propriety of repairing this neglect. M. Le Grand du Saulle presented its report, which contained the following resolutions:—"Considering (1) that Philip Pinel is one of the purest medical glories of France; that it was upon his bold and perspicacious initiative that the chains fell from the insane at Bicêtre in 1793; that he was the true founder of the science of mental diseases; and that, by means of his brilliant and fertile teaching at Salpétrière, he instructed a very large number of pupils, who propagated in all directions his ideas, his reforms, and his benefits. Considering (2) that Pinel has not only been an illustration in whom the Académie des Sciences, the Ecole de Médecine, and the Hospices of Bicêtre and Salpétrière have felt pride; but also that he has exercised a decisive and eminently helpful influence on a numerous class of the sick and abandoned, and through this title is regarded throughout the entire world as one of the most deserving benefactors of mankind—the Société Médico-Psychologique expresses its desire that a statue should be raised to Philip Pinel in Paris." As the reporter observes, the omission of such a mark of recognition became all the more striking at the inauguration of the statue of Pinel's pupil, Esquirol, at Charenton. The Committee forbore recommending which establishment should have the honour of possessing the proposed statue. While Bicêtre was the theatre of the reform which Pinel accomplished, it was at Salpétrière that almost all his scientific life was passed; and the Sainte-Anne Asylum, supposed to be the most perfect establishment in France, might also put in its claim. At a meeting of the Society the resolution was carried unanimously, the general opinion also being that the statue should be erected in front of the Salpétrière.—*Gaz. des Hop.*, May 8.

(a) "Dictionary of Practical Surgery," 1888, "Urinary Fistula," p. 1360.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

A GROUP OF CASES OF DISEASES OF THE RECTUM.

(Under the care of Mr. HULKE.)

(*Continued from page 505.*)

Case 6.—Cancer of Anus—Infection of Inguinal Glands.

A STOUT cellarman, aged sixty-two, but looking much younger, was admitted into Handel ward on February 28, 1878, with epithelioma of the anus. The position of this opening was hidden by a large fungating, warty, ulcerated mass, which extended forwards along the right side of the perineum, from the tuberosity of the ischium (to which it was fixed) for some distance into the scrotum. The anterior wall of the rectum in the immediate neighbourhood of the anus was slightly involved. In the right groin was a cluster of infected lymphatic glands as large as an orange, over which the skin was red, adherent, and beginning to ulcerate. In the left groin was a similar, but smaller, glandular swelling.

He stated that about eight months previously he began to be harassed with troublesome itching at the anus. He supposed he had piles, and went to a dispensary. There he was treated for piles, but no examination was made. About three months later he became aware of a hardness about the anus.

In this case excision of the lower end of the rectum would have been most proper at an early stage of the disorder, but the culpable omission to make an examination when he first sought advice robbed the patient of this resource. The tumour at no time caused much obstruction to defæcation, but the act was always attended and followed by greatly increased suffering. He declined colotomy, and lingered on in great misery till summer. Sulphurous acid lotion proved more efficacious in destroying the fetor than other deodorisers. Towards the close the urethra became involved, and micturition was sometimes embarrassed.

Case 7.—Cancer of the Lower Part of the Rectum, extending towards the Urinary Bladder—Colotomy.

On July 1, 1875, a stolid, loutish farm labourer, aged fifty-nine, who could neither read nor write, was sent into the hospital under the impression that he had piles. Some, he said, had been tied six weeks previously, but without any relief. He complained of a forcing pain in the fundament, much aggravated by defæcation. His bowels were irregular—sometimes bound, at other times loose. Just within the anus, in the posterior wall of the rectum, was a small superficial ulcer, presumably the still unhealed wound left after the separation of the tied pile. Higher than this, and separated from it by a clear space of seemingly healthy mucous membrane, in the front wall of the rectum was a large, firm, nodular, ulcerated mass, the upper limit of which was beyond the reach of the finger. It bled freely. The examination, though gently made, was extremely painful. In the course of the following month his bladder became very irritable, micturition became very frequent and painful. Tenesmus also, which when he entered the hospital was relatively slight, had become very harassing.

On August 12 the descending colon was opened in the left loin. At six p.m. he had a rigor, followed by a "tearing pain" over the whole belly. The pulse was small, quick, and hard. Eight leeches were applied, and the belly was afterwards covered with a large linseed poultice. Opium in one-grain doses was ordered at intervals regulated by the pain. The threatening of peritonitis quickly subsided. The wound did well, and he was convalescent from the operation in a relatively short time. On August 31, cicatrisation was complete.

The effects on the rectum were marked. The tenesmus quickly decreased, so that before he was able to get up it had ceased to annoy him. The irritability of the bladder quite disappeared. In September he was up all day, and able to take gentle exercise in the garden. At Christmas he felt so much relieved that he went home into the country. Five weeks later (February 25) he returned to the hospital with rather more pain in the fundament. His bowels had

acted less regularly at home than when in the hospital, probably owing to unsuitable food. Some little bloody slime, with occasionally a little feculent substance, was expelled per anum. His bladder gave him no trouble.

Under a more suitable diet than he could command at home, the rest and regular life of the hospital, the rectal symptoms soon improved. In the summer (1876), wearied of the restraint of hospital residence (he could not read and had not energy to learn, and lacked amusements), he again went home. A digital examination of the rectum made from time to time showed a very slow increase of the tumour. At one time, for the relief of tenesmus, hypodermic injections of acetate of morphia were given, and he soon acquired a craving for them. Distilled water was occasionally substituted for morphia without his perceiving the difference.

Case 8.—*Cancerous Tumour of the Upper Part of the Rectum, obstructing it—Colotomy.*

A cook, aged twenty-five, pale but plump, was admitted into Queen ward on August 5, 1875, with obstinate constipation—the bowels acted only after much straining, and defæcation was extremely painful.

Her health, she said, had always been good until three months previously, and in particular she had not before had any trouble with her bowels. At the time just mentioned she had a sharp attack of diarrhœa, lasting a few days. This was followed by constipation. The size of the fæces lessened, and latterly she had had troublesome tenesmus attended with the expulsion of slime and matter. In the upper part of the rectum, only just within reach of the finger-tip, was a large, tuberous, obstructing mass. It encircled the gut, and behind seemed fixed to the sacrum. The mucous membrane covering the lower part of the mass felt smooth, as if entire, but just inside the grasp of the small canal traversing it—which only admitted the finger-tip on firm pressure—was slight roughness, as of superficial ulceration. In the left groin was a cluster of enlarged lymph-glands, and the lumbar and iliac regions on this side were distended by knotty masses.

The existence of an obstructing tumour—presumably cancerous—being evident, on August 30 the descending colon was opened in the left loin. This was followed by great mitigation of the local symptoms, but she grew thinner, weaker, and paler, and the mass in the lumbar and iliac regions grew larger, until it extended across the hypogastrium. In the beginning of October, micturition became disordered—its inception was sometimes difficult, and recourse to the catheter was occasionally needful. About this time the pain in the lower part of the belly (which at first had been much less after the colotomy) returned, and it continued with great severity till her death. In November the lymph-glands in the right groin swelled. The external genitals became œdematous. A vaginal examination proved the pelvis to be now almost filled by the tumour. She lingered on in great suffering, wasted to skin and bone, until December 22. Her friends instantly removed her body, and could not be persuaded to allow a necropsy.

Duration from first symptoms till entry into hospital, three months; until death, six months; survived colotomy three months (eighty-three days).

Case 9.—*Occlusion of Rectum by the Pressure of a Uterine Fibroma, producing Symptoms which had occasioned the Suspicion of Cancer of the Gut.*

The reduction of the size and the modelling of the fæces by their being squeezed through a narrow opening, which is generally regarded as a valuable and nearly pathognomonic sign of strictnre of the rectum, may also be occasioned, as is less generally borne in mind, by any cause acting upon the rectum from without, which by compressing it lessens its tubular capacity. Such narrowing may amount to complete occlusion. A young woman, in the act of lifting a chest of drawers, felt a sudden severe pain in the belly. She shortly began to vomit; the vomiting continued, and from the moment of accession of the abdominal pain there was complete stoppage of the bowels, which did not yield to several purges. In this state towards the close of a week she entered the hospital. A large fluid mass distending the retro-uterine pouch flattened the rectum against the sacrum. An incision into this through the vagina let out a very large quantity of pus mingled with broken-down blood-clot. The rectum was at once pervious, and the symptoms indicative of obstruction ceased. More often the occlusion of the rectum is not complete, as in the following case, where it was caused by the pressure of a uterine tumour.

A lady's maid, aged forty-nine, a tall, haggard brunette, was sent into the hospital under the impression that she had cancer of the rectum obstructing it. She said that for at least thirteen years her bowels had been habitually constipated, and that for the last six years defæcation had been difficult and accomplished only by straining; that the difficulty had increased gradually, the size of the motion lessening until at length no solid fæces were voided. During the last eighteen months the bowels had never acted except when rendered loose by laxatives. She had harassing tenesmus. Small quantities of bloody mucus were frequently violently expelled. For the last six weeks her stomach had been very irritable, and quite latterly it had retained liquid food only, and this in small quantities. At the full depth of the fore-finger the rectum was found to be flattened against the sacrum by a large, hard, nodular tumour intimately connected with the back of the uterus, and having all the characters of a uterine fibroma. The tube of the rectum was by this compression reduced to a narrow fissure—a mere chink; but the gut itself, so far as was accessible to examination, was absolutely free from trace of disease. Probably chronic inflammation of the mucosa of the distended first part of the rectum above the obstruction, provoked by the retention and decomposition of the fæces, was the source of the mucous and bloody discharges and tenesmus. Under the use of bismuth and hydrocyanic acid the irritability of the stomach subsided. The bowels were emptied by laxatives and enemata. She was soon able to take solid food; the tenesmus also diminished; and her condition became so bearable that the question of lumbar colotomy, which was at first considered, was deferred indefinitely. She left the hospital after several weeks, greatly relieved. When last seen (quite recently) she was relatively free from her former severe suffering; the rectal obstruction was less, presumably by an upward movement of the fibroma raising its chief mass above the pelvic brim.

In the following case the patient attributed the illness to a chill. He had been busily occupied, and went when heated from a warm shop into a cold store. Severe abdominal pain followed almost directly, and looseness soon afterwards. His symptoms and the state of the rectum when he was taken into hospital were such as are found in the later stages of dysentery. The absence of distinct tenderness in the course of the descending colon led to the hope that this was not so implicated as to render colotomy impracticable; and as the diversion of the fæces through the artificial opening was calculated to give the rectum rest, colotomy was advised as the only resource in his desperate condition.

Case 10.—*Ulceration and Contraction of Rectum, probably of Dysenteric Origin—Fistula—Colotomy.*

On June 3, 1878, ——, a grocer, aged forty-five, extremely emaciated and feeble, with pallid, hollow cheeks, was admitted into Forbes ward. At the left of the anus, towards the ischial tuberosity, was a large ulcer, which, by its straight edges and angulated figure, seemed to mark former incisions. It extended into the rectum, which, as high as the finger could be pressed, was contracted, and its surface rough and ragged. The examination was excessively painful. He had a very distressing tenesmus, with frequent expulsion of flatus and loose, slimy, bloody motions, the passage of which caused burning pain. He had a phthisical aspect, but an examination of his chest did not reveal any pulmonary disease. He said that three or four years previously he had had a boil on the bottom by the vent; it was opened, healed up, and did not occasion any further trouble. In December, 1877, whilst in his usual health, he was suddenly seized with great pain in the belly, bearing down, and looseness of bowels, which, in spite of treatment, had never left him. From the date of the attack his strength had rapidly declined. Two months afterwards an anal fistula formed, which was cut three times.

The patient denied any venereal antecedents, and nothing could be elicited which impugned his assertion. He had had eleven children by two wives, of whom seven had died in early childhood. His father and one brother had died of pulmonary phthisis.

On June 12 colotomy was done in the left loin. The coats of the intestine were so soft and friable—they had a gela-

tinous appearance—that it was difficult to secure the opening in it to the skin, a difficulty increased by the agglutination of the gut to the structures in relation with it.

The patient rallied imperfectly, and died at noon on the 15th. His sufferings appeared certainly less after the operation.

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Medical Times and Gazette.

SATURDAY, MAY 17, 1879.

THE SCOTTISH UNIVERSITIES AND THE MEDICAL BILLS.

As we suspected, the memorial on behalf of the Royal College of Surgeons of Edinburgh against the Medical Acts Amendment Bill was but the harbinger of the gathering storm. We have now before us a "Statement on behalf of the Universities of Scotland with reference to the Medical Acts Amendment Bills, 1879," and it is a document which deserves the careful consideration of all real well-wishers to medical education. The writers commence by broadly criticising the tenor of the various efforts which have been recently made towards fresh medical legislation, which they describe as "extremely rash and ill-advised experiments in medical legislation, following no clear principle, but moulded according to the form and pressure of various contending interests, of which the numerical majority happens to be in England. . . . . The Scottish Universities," they say, "have not the local and personal connexions which would enable them to exercise a powerful influence at the seat of Government. . . . Thus the Bill which is as wax in the hands of the English Corporations and Universities, becomes rigid as steel when a proposal is made on behalf of the Scottish Universities, although these have had more to do with medical education than all the Universities of England and Ireland put together." This is caustic criticism, but it cannot be called unjust; the prudence of it is more questionable, and the combination of self-humiliation and humble boasting is such as is hardly worthy of Universities of such ancient fame. But they have great grievances. To seek to deprive them of privileges conferred upon some of them at least by Papal bulls in the days when these were the foundation of all such benefits in this and every other civilised country, is hard. It is, in short, a measure of disfranchisement which is proposed—and that, too, as they carefully point out, when "it is not alleged that the Universities have forfeited these rights and privileges through neglect or misconduct." But because a scheme is thought suitable for England by some—and it is questionable if they are the majority, even now—this proposed system for England must also be suitable for, and therefore thrust upon, Scotland. The Universities desire, therefore, to refer the whole subject to a Select Parliamentary Committee, to take evidence and report.

Next, the statement proceeds to discuss three points, and to assert—

"1. That the kind of 'uniformity' proposed under the Bill is not desirable, and, even though it were desirable, not likely to be attained. 2. That so far as the Universities of Scotland are concerned, a general high level of qualification is already secured in a manner far preferable to the minimum uniformity proposed under the Bill. 3. That the true object of medical legislation ought to be, not uniformity, but efficiency; and at the same time a spontaneous and, so to speak, elastic capacity of gradual development and improvement, both as regards education and examination. These three points, the promoters of the present statement believe, could be established by evidence in detail before a Select Committee."

And first as regards uniformity. This, they point out, is utterly impossible under any known system even with one board of examiners, however constituted. How, then, could it be so with three perfectly distinct bodies working on different systems? But after all, say they, is this uniformity—a cast-iron system of the Procrustean kind—the thing that is wanted? Will it not tend to hamper improvements in medical education, and tie men down to a stereotyped scheme, probably behind rather than in advance of the average range of medical knowledge? In Scotland, say they, the Universities are not aiming at uniformity of method so much as at real knowledge and scientific progress.

For say they—"The methods, both of instruction and of examination, are every day becoming more thorough, and, in a high sense of the word, more practical. The Universities are, indeed, bound by their statutes not to require less than a certain minimum of study, but there is nothing to hinder the requirement, on the part of the examiner, of any amount or kind of information from the candidate, which the opportunities at his disposal have placed fairly within his reach. And the competition of the Universities with each other is such, that any considerable or permanent deficiency in the means of education, or in the standard of information required, is sure to tell, in the end, to the disadvantage of the institution thus halting in the race of scientific progress."

Thus far the argument is general, but the next article deals with the peculiar position of the Scottish Universities and their system. The statement points out that their medical curriculum is practically settled by Act of Parliament—so that their minimum of requirement must be attained to obtain a degree; so too, in certain respects as regards the examinations. And they take care to point out that their minimum is decidedly in excess of the requirements under the proposed Conjoint Scheme. "Moreover, as regards clinical examinations, and indeed the more practical examinations in every department, the Scottish Universities have for many years been in advance both of the Corporations and of the Recommendations of the General Medical Council, so that their influence has been felt in raising the standard of the other bodies, and of the Medical Council itself. The requirement of residence, the sub-division of the professional examinations into distinct divisions of subjects, arranged

progressively, so as to be taken at separate terms, and each including practical as well as written and oral examinations; the co-operation of non-professorial examiners with the professors in each department of the examination, and the length of time given by these to this duty, form securities such as can hardly be had elsewhere, that the merits of candidates are duly weighed, without haste or partiality. It may be said that at all events, so far as regulations can secure uniformity at all, the statutory regulations of the three Scottish Universities having complete medical schools are, in the language of Clause 15, 'so framed and carried into effect that the qualifying certificate shall, as nearly as possible, be granted on equal terms so far as regards the curriculum of study, examinations, and standard.'"

But they go farther; they say that the scheme proposed for their adoption, on the ground that it would improve medical education, would go far to endanger their whole scheme of medical education, "carefully matured and successfully in operation for many years past." In no English University, say they, is there the slightest approach to, or the character of, a great centre of medical education, such as exists in three out of the four Scottish Universities. They point out that till lately a man might be in practice who had never been examined in anything save a little anatomy and surgery, and that the theory of a double qualification arose entirely from this fact. Two diplomas were required to show that the man had been properly educated. Here the memorialists are not altogether right, for it is a fact, though not generally known, that the licence of the Royal College of Physicians gives a right to practise both medicine and surgery; and, without boasting, it may be said to be the most satisfactory and most searching examination, for one who intends to pursue general practice, to be found in England. Putting that on one side, the Universities say that in Scotland this half-and-half education and examination has never been permitted; to become an M.D., gentlemen had to exhibit an all-round knowledge, and it was only to overcome popular prejudice that, after 1858, they were allowed to grant the C.M. (Chirurgiæ Magister), together with the M.D., the examination for the former having been previously included in the latter. They do not deny that the scheme may be suited to the exigencies of English medical education, but they contend that it is entirely unfitted for the system of professional training adopted in the Universities of Scotland in conjunction with the clinical teaching in their great hospitals.

Finally, they deal with the true object of medical education. They think the scheme proposed—admitted as it is by some of its supporters to be unsatisfactory, and therefore not very likely to be final—to be, in the meantime, revolutionary. They do not object to inspection or supervision of their examinations, nor would they object to an increase, reasonable in number and in influence, on the present non-professorial examiners, nor even to these being nominated by a body totally independent of the Universities. But they do object to a complete break-up of their present system. They conclude thus:—

"While favourable to any scheme which shall preserve, or increase, the efficacy of the existing examinations, the Universities object strongly to replacing these as licences to practise by a new examination conducted by an entirely distinct board of examiners; inasmuch as they believe that the influence for good of examinations is largely connected with their reflex influence on teaching, and it is only by keeping these in harmony with each other that the best results can be attained. Examinations by a conjoint board can never rise above the level of the minimum required by the needs of the country at large, and more or less conformed in detail to the education given in the least advanced centres of instruction. To require the Universities of Scotland, which have been successfully striving to advance beyond this point, to abandon their legal position as bodies conferring a qualification to practise, is a retrograde and not a progressive step in medical reform. Any such course would be destructive of the best interests of medical education, would arrest the advancement of medical science in Scotland, and would be injurious to the public welfare. The reform of medical education and examination is, in the opinion of the Universities, not to be sought in the direction indicated in the present legislation; but rather in developing what is good in the existing examinations, and especially in those of the Universities, which are, more than any others at present, in a position to influence for good the whole tone and the requirements of the medical education of the future. Especially is it to be desired, that whatever is done in the name of the medical profession should be done with all due regard to what is really a far higher interest than mere uniformity, viz., the upholding and strengthening those institutions which have most advanced medical education in the past, and are still pursuing steadily the path of a legitimate progress, guided by past experience."

ENGLISH AND SCOTTISH MEDICAL EDUCATION.

All of the objections contained in the statement of the Scottish Universities addressed to Parliament on the subject of the changes proposed to be enforced upon them by the Medical Bills now before the House of Commons, we have foreseen and have forestalled. Anyone acquainted with the two systems—the English and the Scottish—cannot fail to see the superiority of the latter. The former is all haphazard; the latter is an attempt, at all events, towards scientific instruction in a methodical way. But neither must it be forgotten that, as regards Scotland, the advantages are much on one side. The various chairs are, if not richly, at least well endowed, and in no single instance is it to be found that the incumbent of a chair cannot live, however quietly, from its proceeds. What is the case in London? The schools there are self-supporting, sometimes handicapped by a heavy rent. All expenses have to be borne by the teachers themselves—which is, again, nowhere the case in Scottish Universities. Here, in London alone, we have a population greater than that of the whole of Scotland, but not one farthing of Government money finds its way into our coffers.

England is not to be reproached for the unsystematic method of pursuing medical studies. The system has been the offspring of that individual energy and private endeavour to which everything is left here. But this has not been the case in Scotland. There the Universities started full into being, founded mainly on the model of the great French University at Paris; and their gradual development has been easy.

All this we write not to the prejudice of the Scottish Universities, but to secure for once justice to England. We are just as averse from altering the Scottish system as we would be from hindering improvements in our own. To enforce in London such a system of medical teaching as prevails in Scotland, would probably be as tyrannical as we hold is the proposed withdrawal of the rights and privileges of the Scottish Universities from them. In neither case can or ought to be the growth of centuries swept away in one day. Hence we think the Government has acted wisely in granting what, after all, is the reasonable request of the Scottish Universities for a Select Committee. Probably Government has had enough of this nest of hornets. To please one noisy party is to rouse another to indignation. Men complain of the little that has been done for them by the Medical Act of 1858. How many of them who iterate this complaint have any knowledge of what the profession was before that date?

The main object of some—namely, the abolition of quackery—can never be attained by Act of Parliament; still less can that other grand endeavour contemplated by others—the compulsion of all sick men to their own particular doors—be finally and for ever settled. All this discussion of medical affairs has, however, done good—it has cleared the air, at least to a certain extent. If it has shown that things are not altogether satisfactory, it has also shown that there is no panacea: for there are things which no Act of Parliament can mend. But if we set to work with a united purpose to improve matters as far as we can, without imposing our whims and oddities on others, we may do much. First of all we would say, now that a Select Committee is likely to be appointed, which in all probability—we may say certainty—implies the dropping of the Bill for the year, let each country set to work to look after its own affairs, without seeking to impose its dogmas on others. As regards England, the present absurd Conjoint Scheme, uniting such incongruous bodies as it does, should be quietly dropped. The Universities should go their own way. Were the College of Physicians and the College of Surgeons to unite to give a conjoint diploma or two diplomas after a conjoint examination, they would constitute the most powerful, and we believe the best, examining body in the three kingdoms. Scotland, though the Universities say that to them the Government is as steel, has ways and means of holding its own; of Ireland we think we could say, "and something more."

THE DISCUSSION ON CROUP AND DIPHTHERIA.

On Tuesday evening the prolonged discussion on croup and diphtheria, founded on the report of the Committee appointed by the Royal Medical and Chirurgical Society, was brought to a close. Those who were in the secret, and were aware of the ominous number of intending speakers on the President's list, were quite prepared for the announcement made from the chair, that, though the debate must be closed that evening, he (the President) was prepared to sit for any reasonable time, and that, in his opinion, it would be needless to go through the accustomed form of proposing the prolongation of the meeting at ten o'clock. In point of fact, the discussion did not close till not far from midnight, and the latter speakers were so cramped for time that their remarks lost half their value. This is the more to be regretted, inasmuch as those who came last were men of the most weighty authority; and it seems to us matter of regret that so much time should have been taken up by speakers who, without the slightest derogation to them, may be said to have been of less eminence. In the meantime, it will be impossible for us to do more than give a summary of the various points raised by each speaker, hoping to give as full and complete report as may be on a future occasion, and, at the same time, to give some kind of estimate of the value of the whole debate.

The adjournment of the discussion had been moved by Dr. Dickinson, but he waived his claim of beginning the adjourned debate in favour of Dr. Barclay, reserving to himself, as a member of the Special Committee, the right of reply on the whole subject. It seemed to us regrettable that Dr. Barclay—who, if we mistake not, had been absent from all the former evenings of the discussion—should begin by wading through parts of the subject already so well threshed out as to be devoid of grain. Indeed, his speech (which was a long one) was latterly received with signs of impatience by a body which is noted for the staid respectability of its demeanour, and a most manifest unwillingness to interrupt even when speakers exceed the ordinary bounds of platitudinising. Dr. Barclay is—we had almost said, as a matter of course—a staunch supporter of the doctrine which has come to be tolerably well described by the name of "dual." But he fell back at once to the memories of his student-days, and cited definitions then in vogue, and descriptions such as were to be found in a famous work in those days—"Craigie's Practice of Physic." The very name takes us back nearly to the last century. To the days when Craigie and Thomas were the popular text-books in medicine, is a very long cry. As Dr. Wilks said, they were pre-pathological. Certainly, the distinctions drawn by Dr. Barclay between croup and diphtheria, founded on such data, were far from satisfactory, even though backed up by the personal observation of one of the shrewdest observers we have among us.

Next followed a gentleman whose name escaped us, but whose arguments were in themselves of so slight a cast that they might almost be passed by. They were founded on the experience obtainable from the Registrar-General's Reports as to the connexion between croup and cold weather. But he dealt with an unknown quantity called in these reports "croup," and the average temperatures during certain periods. Now, the whole discussion rests on the meaning of the word "croup"; and, certainly, if anything has been shown by this debate, it is that the term does not convey the same impression to all men. But the crowning absurdity was to quote average temperatures. There can be no greater fallacy under the sun. Suppose that meteorological observations had been carefully kept from the time of Noah downwards, an average could be easily struck by a calculating machine; but what kind of knowledge would that give us? It is the extremes that tell.

Sir William Jenner began by quoting a passage from a lecture of his, which had been published in 1875, which, he said, had been generally misunderstood. It was to the effect that he was inclined to the belief, but not positive about it, that there was no such disease as simple idiopathic membranous laryngitis. But his main object was to show that in no one single point could any sharp distinction be drawn between croup and diphtheria. In point of fact, as he held, the various speakers contradicted each other. As regards the character of the inflammation, the relative frequency at different seasons, the parts affected, or the character of the membrane, no exact boundary-line could be drawn. As regards infectiousness, there was often difficulty in making an exact distinction; albumen was not often sought for; the existence of a membrane could not always be determined with exactness; and the value of glandular swelling was over-estimated. All in all, the distinctions between the two would not hold good.

Dr. Wilks set himself to work out the ideas attached to the words "specific" and "idiopathic." As a type of the idiopathic diseases he would cite the exanthems, such as small-pox. Both Mr. Hutchinson and Dr. George Johnson had, he said, cited cases to show that diphtheria might originate of its own accord under unhealthy conditions; therefore he would hold it was not specific, but idiopathic. This greatly simplified the matter. Moreover, it was quite clear that we might have contagious sore throat without any membrane, and this might be epidemic. He was quite content with the name "croup."

Dr. Pavy compared two different kinds of disease with the view to show that the differences between them were so great as to justify them being called distinct diseases. And the distinction was important, inasmuch as, though in face of a fierce epidemic of diphtheria the physician could do little for individual cases, he might do much to limit its ravages. Dr. Fitzpatrick dealt with one particular case he had contributed to the Committee, and which he said had been misunderstood; whilst Dr. Matthews Duncan denied that there was any clear evidence that the disease was ever epidemic in the proper sense of the word. Dr. Thorne brought his peculiar experience to bear on the

subject by pointing out that in an epidemic it was often the case that the earlier instances were described as croup, the later as diphtheria. In many outbreaks there was no trace of infection from pre-existing cases, and it seemed as if the poison underwent a gradual intensification, ending in a specially fatal outbreak in one portion of the district.

Dr. Andrew declared himself unable to abandon all shreds of former belief, on proceeding to the investigation of such a subject as this. He still held to his old belief that croup and diphtheria were not identical. Even Bretonneau found sporadic cases of membranous laryngitis which were not diphtheritic.

Dr. Fagge, as a member of the Committee, thought they would have done better on the whole to have sent in a double report, and thus it would have been seen who of their number held the one view, and who the other. Giving up the specificity of the disease was like taking away the backbone of the question, but even then the relation of membranous and non-membranous laryngitis to diphtheria remained of importance. Looking to the membranes themselves, the only distinction which had recently been held as satisfactory was the presence of bacteria, but these were not always to be found. Nevertheless, his own hospital experience showed that whereas croup was comparatively frequent in hospital, diphtheria was rare. Finally, he thought there might be a distinction between the relative number of cases of croup and diphtheria found in various countries. Dr. Greenfield, as Secretary to the Committee, defended the report, and Dr. Dickinson (whose remarks we give elsewhere) replied on the whole case; but by this time, the hour being so far advanced, many had left, and the speakers were unable to do that justice to their subject which with more time they could have done.

THE ARTISANS' DWELLINGS ACT (1868) EXTENSION BILL.

The Bill, introduced into the House of Commons by Mr. M'Cullagh Torrens, to extend the Artisans' Dwellings Act of 1868, has been received by the House with very general favour, and passed its second reading on Wednesday last week. It is a measure of very considerable importance, inasmuch as its object is to amend the former Act by restoring to it the compensation clauses, the omission of which by the House of Lords has so seriously crippled its usefulness. The Act of 1868 gives power, it will be remembered, to the Local authority of any town or urban district to require the improvement or demolition of any dwelling-houses that have been declared unfit for human habitation. Should the owners of such houses refuse or neglect to make the changes required, the local authority may itself make them, and charge the cost on the property; and, if the premises are ordered to be demolished, the work must be done at the owner's expense. He may destroy them himself if he will; but, if not, the local authority may; and in either case he is entitled to no other compensation than such sum as the materials, when sold, may bring. It is left, further, to his own choice whether he will rebuild or not. The local authority is bound to take care that new works are properly executed—that is, according to sanitary requirements—but can neither undertake them, nor in any positive way assist the owner. When the Act left the Commons it contained compensation and rebuilding clauses, but these were struck out in the Upper House when it was too late in the session for the matter to be reconsidered. The effect of the alteration has been, according to Mr. Torrens, that the Act has remained virtually a dead letter, and he proposes to remedy this by conferring on local authorities the powers of granting compensation and of rebuilding, which are not given by the Bill of 1868 as it became law. There is no doubt that good has been done by means of the Act; and an amount of good that, taken by itself, seems almost great, but which, when compared with what is absolutely necessary for decency and health's sake, dwindles almost into insignificance, because local authorities have shrunk from enforcing the Act to the damage of local owners. And the Act of 1875 (Mr. Cross's Act) has not supplied the additional power wanted, the machinery of it not being suited for dealing with small properties.

It might indeed be almost questioned whether up to the present time the Artisans' Dwellings Acts have not, on the whole, been productive of more harm than good. For though large spaces have been cleared, most of them still remain spaces, or have been chiefly taken for School Board schools, warehouses, and the like. But hardly a dwelling for the artisan and labouring classes has been built upon them, and the former population of them have been driven to still more overcrowd other places. This state of things was fully admitted by the various speakers—some of them high authorities on the subject—who took part in the discussion of Mr. Torrens' Bill; but for a graphic and much fuller description of the defective and even mischievous working of the existing Acts, and the urgent need of extended power, we recommend to our readers the forcibly written article, "What is to be done with the Slums?" published in *Macmillan's Magazine* for April. We will give one quotation from it, as pointing to one of the many like instances of destruction, without any compensating reconstruction, caused by metropolitan improvements, and let it be borne in mind that evil of just the same kind has been brought about by imperfect operations under the Acts in question. "Around Meeting House-yard" (in the East-end), writes Mr. Torrens, "on Christmas Eve (1878), eighteen streets, alleys, and courts, consisting of 240 houses, not of the best description, but nevertheless capable of sheltering from winter weather 2500 human beings, in the words of one of their dispossessed inmates, 'stood dismantled, as if shattered by earthquake; the streets, alleys, courts, and yards are voiceless and deserted; for those that once ate, drank, slept, and worked here, have disappeared from them for ever'—no provision whatever, either temporary or permanent, being made for them."

It is very satisfactory that no real opposition was made to Mr. Torrens' Extension Bill, though amendments to it will be proposed—and no doubt needed amendments—in Committee. Sir H. Selwin-Ibbetson, and Sir M. Ridley, speaking for the Home Secretary, observed that it was impossible to deny the need of action in the matter, and admitted that there is plenty of room for the action of Mr. Torrens' Bill and Mr. Cross's, as the former would be specially useful in dealing with small nuisances, when the larger machinery provided by the Act of 1875 cannot conveniently be set in motion. They allowed also that, unfortunately, great spaces had been cleared, and at present very few dwellings had been erected to supply the places of the buildings that had been taken down. It is well to be assured by Sir M. Ridley that Mr. Cross has been using every endeavour to promote the construction of houses on these sites, and that, from the present state of the negotiations, there is every reason to expect that in three years every site cleared under the Act of 1875 by the Metropolitan Board of Works will be occupied by artisans' dwelling-houses. But three years is a long time; and the sooner help is given, by the passing of Mr. Torrens' Act, the better.

Lotion in Ill-conditioned Wounds.—Dr. Noel Guéneau de Mussy recommends the following lotion for rapidly expediting the healing of pale and ill-conditioned wounds:—Decoction of poppies, 400; alcohol, 40; and salicylic acid, 2 parts by weight.—*Union Méd.*, May 6.

THE WEEK.

TOPICS OF THE DAY.

We last week noticed the Registrar-General's annual return of births and deaths for the year 1878, so far as it had reference to the metropolis. Turning now to the provinces, it appears that the mortality in the five years 1874-78 was below the mean (viz., 24·8) in Portsmouth, where it was 19·7; in Brighton, 20·2; Edinburgh, 22·2; Plymouth, 22·4; Nottingham, 22·9; Sunderland, 23·0; Bristol and Norwich, 23·1 each; Leicester, 23·3; Wolverhampton, 24; Hull, 24·4; Bradford, 24·5; and Sheffield, 24·6. During the same period it was above the average in Newcastle-on-Tyne with a result of 24·9; Birmingham, 25·2; Leeds, 25·3; Oldham, 26·1; Glasgow, 26·9; Salford, 27·1; Dublin, 27·3; Liverpool, 28·6; and Manchester, 29. Liverpool has recently been making great exertions to improve its sanitary condition—with what success may be gathered from the fact that in 1865-66 its mortality was returned as 40·2, against 28·6 in the present record. Manchester has nearly the same rate of mortality as Liverpool, but has made less progress in reducing its rate of mortality; both are far behind London with its return of 22·8. In fifty large town districts the mortality in the year 1878 was 23·0, while the birth-rate was 37·0; so that the mortality was lower than in the larger towns. Taking it as a rule that the mortality of large towns should not exceed a rate of 20 per 1000, it will be found that the following furnish returns below that standard:—Dover, 16·2; Rochester and Chatham, 18·1; Maidstone, 18·4; Hastings, 18·9; Cheltenham, 19·4; Chester, 19·7; Barrow-in-Furness, 18·6; Merthyr Tydfil, 19·4; Cardiff, 19·5; and Halifax, 19·9. Amongst those towns unable to show equally satisfactory results must be mentioned Ipswich, Exeter, Shrewsbury, Stoke-upon-Trent, Dudley, Worcester, Lincoln, Stockport, Macclesfield, St. Helen's, Wigan, Bolton, Bury, Ashton-under-Lyne, Rochdale, Blackburn, Preston, Gateshead, Tynemouth, and Carlisle. In most of these towns there is great reason to fear that there must be much neglect of due sanitary precautions, and the example of Liverpool might with advantage be followed in the endeavour to prevent a preventable waste of human life.

A large meeting of chairmen of Boards of Conservators appointed under the Salmon Fisheries Acts was held last week in the Shire Hall, Worcester, to consider the question of the pollution of rivers by sewage and manufactures, and to call the attention of the Government to the defects in the Rivers' Pollution Acts of 1876, with a view to their remedy. Mr. Garnett, of the Lime Board, moved a resolution to the effect that the meeting considered the Act of 1876 totally inadequate for the prevention of the pollution of rivers, especially in not being retrospective, and by Clause 16 establishing rights which were injurious to the public. The Duke of Beaufort seconded the resolution, and mentioned a case which had occurred in the Wye, in which, at a paper mill, a large quantity of soda was allowed to escape into the stream. The resolution was carried, and it was decided to forward to the Home Secretary a full report of the proceedings.

In the number of the *Révue Positiviste* recently published, M. Littré refers to the probable development of the races which now divide the world between them. The first thing that attracts attention, he says, is the enormous expansion of the English race and language. Whatever may be the future reserved to Canada, India, and Australia in their relations with the metropolis, the British element will remain a living one in all these countries, as it is in the United States. By the side of the unparalleled development of the British race must be noticed the formidable Chinese Empire, which contains several hundred millions of men. Although sluggish at the present moment, they will some day awaken from their apathy. After China, though at a much lower figure, comes Russia, whose population is also possessed of immense vitality—so much so, indeed, that it doubles as rapidly as that of the United States. The Spaniards of South America, the Germans, and the French close the list. M. Littré expounds no new fact, for the expansion of the British race is one of the features of the day.

In forwarding to the War Office a report from the Principal Medical Officer in Cyprus, giving a medical history of the troops stationed there since the occupation of the island last July, Sir Garnet Wolseley remarks:—"The summer of 1878 was an exceptionally unhealthy season in Malta, as it was in Cyprus, and generally throughout the Levant. In the three battalions of British infantry, about 2400 men, quartered here during the hottest months of the year, there were only twenty-two deaths, of which only eleven were owing to malarious fevers. I have no accurate data to enable me to compare the death-rate here with that of Malta during the same period, but I am informed that in one battalion alone, quartered there in good permanent barracks, the number of deaths considerably exceeded the total number of deaths in all the three battalions stationed here, then under canvas. To those unused to analyse medical statistics, the death-rates given by Sir A. Home are likely to convey a very erroneous impression, as they are calculated (according to the regulations of the service) upon the assumption that had the three regiments remained here a whole year, the rate would have continued during the cool months to be the same as it had been during the unhealthy season. The fact that no man of the 1-20th Foot has died since arrival in Cyprus is sufficient evidence of how misleading is any such assumption, and how unsatisfactory are all calculations based upon statistics derived from an experience extending only over a few months' residence in any military station. It is my intention to move the troops next month into the mountains, where, at an elevation of about 5500 feet above the sea, I have every reason to believe that a considerable force might be quartered throughout the year with as great safety to health as at Malta, or at any other place on the shores of the Mediterranean."

A large deputation of ratepayers and delegates from the vestries and district boards of the metropolis last week waited upon Mr. Cross, to present a memorial on the subject of the present supply of water to the metropolis. Mr. Watherston, the chairman of the delegates, explained the reasons which had led to the present agitation, and begged that the Home Secretary would impress upon the Government the necessity which existed for taking steps to give to the ratepayers a wholesome, pure, and uncontaminated constant supply of water at reduced cost of administration, in place of the present contaminated, costly, and wasteful system of supply. Mr. Cross, in reply, pointed out the difficulty of interfering with the powers already conferred by Parliament, under which vast sums of money had been invested, and suggested that some arrangement should be come to with the water companies before Government was asked to consider the question. Agitation may eventually succeed in bringing about a reform which nobody can deny is much needed, but in this instance the old bugbear of "vested interests" will prove a terribly difficult one to deal with.

Another very important deputation of employers of labour last week waited upon Lord Beaconsfield at the Foreign Office, to urge upon the Government the withdrawal of the Bill introduced into the House of Commons by the Attorney-General respecting the liability of employers for injuries sustained by their servants. The speakers, who for the most

part represented the great railway interests of the country, explained that their opposition to the Bill was based upon the altered feelings which the passing of it would bring about between masters and men; at present large sums were paid by the railway companies towards the funds of the societies associated with the servants of the different companies; but these could not possibly be continued if they were, in addition, to be liable to actions for every disaster occurring. In reply, the Earl of Beaconsfield remarked that the Ministry had only one object in view in any piece of legislation adopted by them—viz., the welfare of the public,—therefore the representations of the deputation now before him should have every consideration; and the expressions of opinion to which he had listened should not be lost upon her Majesty's Government.

At the Congress of Children's Doctors recently held in Berlin, Professor Winckel, the Director of the Royal Lying-in Institution of Dresden, communicated some observations which he had made upon an apparently novel children's disease occurring in that institution. An epidemic of it broke out towards the end of March last. Of twenty-three children attacked, nineteen, or 82 per cent. died, and the average duration of illness in the fatal cases was thirty-two hours. The illness began with a sudden stupefaction of the patients; the respiration became hoarse, accompanied with groaning, and occasional foaming at the mouth. One remarkable feature was a change in the blood. Dr. Winckel made incisions in some cases, but it was only by using pressure that blood could be extracted. It was then found to resemble a thick brown-black fluid, of the consistency of a syrup. The body became flaccid, the liver much swollen; eventually convulsions supervened, during one of which the child expired. The President of the Congress, Privy Councillor Dr. Gerhardt, of Würzburg, suggested that this new disorder should be designated "Winckel's disease."

The *Leeds Mercury* reports that the English medical men who were sent to Russia to inquire into the recent outbreak of plague have come to a very decided opinion as to its origin. They have been able to associate its appearance in Europe in so many instances with the passage or cantonment of soldiers brought over from Asia, as to leave but little doubt as to the method by which infection has been spread. A specific form of plague known to foreign physicians has existed from time immemorial amongst certain tribes of Central Asia, and although not always so fatal in its effects amongst the natives of the regions where it is endemic, it is most deadly when it attacks immigrants from other countries.

The Lord Chancellor, the Home Secretary, Sir Selwin-Ibbetson, M.P., and a distinguished company, were present on Saturday last at the opening of a coffee-tavern in the Buckingham Palace-road, promoted by the Rev. Canon Fleming and the clergy of Pimlico. Several addresses were given, in which the speakers expressed themselves strongly in favour of the attempts to provide working-men with the accommodation that was needed, without exposing them to the temptations necessarily met with in public-houses; but they were equally strong in their opinion that the movement should be made a commercial success, and that there should be no unfair competition with tradesmen by the cutting down of prices. On the same day Mr. Thomas Hughes, Q.C., opened the "Three Cups" coffee-tavern at Walham-green, Fulham, making the sixteenth house of the kind opened by the Coffee Taverns Company. There seems little doubt that the persistent efforts in this direction to wean the working-man from the brilliantly lighted public-house, and thus diminish the temptations to muddle his brains with adulterated liquors, will eventually be crowned with considerable success, and the heartiest sympathies of all must go with the promoters of an undertaking which bids fair to stem the vice of intemperance amongst the lower classes in this country.

MEDICAL REFORM.

The attitude of the Government towards the Medical Act Amendment Bill now before Parliament has changed since we last noticed the subject. On the 5th inst., Mr. W. E. Forster asked the Vice-President of the Council when he intended to move for a Select Committee to inquire into the constitution of the General Medical Council; and Lord George Hamilton, in reply, stated that his motion had been on the paper for some time, but that in consequence of the opposition it had called forth it could not be brought on after half-past twelve, and he did not know when he should be able to move it. But on Monday last, when Mr. Errington inquired whether the Vice-President would consent to refer the whole question of medical reform to a Select Committee, Lord George replied that though the Government considered that the course they had adopted was the most convenient and the most likely to save time, he had been unable to carry it out, as the opponents to it would not give way. The Government were therefore ready to adopt the inconvenient procedure forced upon them rather than sacrifice their Bill; and if those members who had amendments to the Medical Bills would withdraw them so as to allow the Bill to be read a second time, he would move that they be referred in their entirety to a Select Committee. The Government have thus yielded along the whole line; but looking at the advanced period of the session, and considering how extremely improbable it is that the report of the Select Committee will remove the Scotch opposition to the main principle of the Government and the other Bills, it seems almost out of the question to expect that a Medical Act Amendment Bill can be passed this year. Nor is it at all probable that one will be passed next year, when Parliament will be *in extremis*. This position of things implies the indefinite delay, or the death, of the Conjoint Examination Scheme for England. This subject, however, with the steps that we think should be taken by the English Colleges of Physicians and of Surgeons in the present state of affairs, is spoken of elsewhere in our columns.

ARMY MEDICAL DEPARTMENT.

Inquiry was made in the House of Commons lately as to what recognition has been or will be made of the services and sacrifices of the members of the Army Medical Department engaged in the South African campaign. And the Secretary for War replied that it was premature to consider what rewards or honours should be given for the present campaign; but there had been an exception to this in respect to the defence of Rorke's Drift. "In that case Surgeon Reynolds was promoted to be Surgeon-Major, but his promotion, like that of Lieutenants Chard and Bromhead, was a special one." The profession must, however, wonder why no one has asked the gallant Secretary why Surgeon-Major Reynolds has not also, like Majors Chard and Bromhead, received the Victoria Cross. No distinction or reward is more coveted, and, delighted as everyone has been to see it promptly bestowed on the two officers above mentioned, and on others of the gallant soldiers who took part in that famous defence, the oversight of Surgeon-Major Reynolds' claims to the same reward cannot but be sorely felt by the Army Medical Department. His conduct was especially recommended to the notice of Lord Chelmsford in Lieutenant Chard's despatch, "in regard of his constant attention to our wounded under fire, assisting them when they fell"; and one of the wounded men stated that he saw "Dr. Reynolds blazing away at the enemy, cheering the

men that were hit, running to the fellow, dressing his wound, then fighting away like a hero," etc. Not a few medical officers have received the Victoria Cross for, we think, either attending the wounded under fire, or fetching them at great personal risk into shelter. Surgeon Reynolds both attended the wounded under fire, and fought as gallantly as any soldier among them, but he is passed by when the Victoria Cross is awarded. Why? We can only suppose the slight is due to the petty, pitiful jealousy of "non-combatant" officers that has gradually but most effectually broken down the Army Medical Service, and made all efforts to attract candidates to it useless. The War Office Committee on the state of the Army Medical Department admitted the truth and justness of the complaint that the medical officers have not received their due share of military honours and rewards, and noted the fact as one of the grievances that ought to be remedied; but the military authorities are blind and deaf to the wisdom of the advice thus given. It is certain, however, that so long as this and all other similar grievances remain unremedied the Army Medical Service will never again attract "eligible candidates." We suppose the same poor little-minded jealousy of "non-combatants" is felt towards the officers of the commissariat; for Acting-Commissary Officer Dalton, with whom Lieutenant Chard "consulted" on the measures to be taken to defend Rorke's Drift, who had commenced the work of defence before the Lieutenant could reach the place, and who "was severely wounded while gallantly assisting in the fight," and Assistant-Commissary Dunne, whose gallantry was also especially noticed, have neither of them received the Victoria Cross.

THE ROYAL COLLEGE OF PHYSICIANS.

At an extraordinary meeting of the Royal College of Physicians of London, held on the 9th inst., all the Members of the College who were elected to the Fellowship at the preceding meeting were admitted Fellows, with the exception of Dr. G. C. Bright, of Cannes, and Dr. E. I. Sparks, of Mentone; and a by-law was proposed, for the first time, to admit those two gentlemen to the Fellowship *in absentiâ*. The Baly Medal for 1879 was, on the recommendation of the Council, unanimously awarded to Charles Darwin, F.R.S. A medal of Dr. John Freind was presented to the College by the Rev. C. B. Norcliffe, of York. Dr. B. W. Richardson asked if it was true that the Council had passed a resolution not to nominate for election as Fellow any Member of the College keeping a private lunatic asylum? The President replied that no such resolution had been passed or proposed. We have heard that the question was incited by something that happened at the Literary Fund dinner; but it is strange, anyhow, that anyone acquainted with the management of the College could deem it necessary to ask such a question. The Council is a continually changing body; and supposing that the Council of one year could agree among themselves to such a rule, the next year's Council would not be bound by it.

THE ROYAL COLLEGE OF SURGEONS.

At the ordinary meeting of the Council of the Royal College of Surgeons held on Thursday, the 8th inst., Mr. Hancock's motion to throw open the examinations for the College Licence in Dental Surgery to all dentists at present on the Dental Register, *sin curriculo*, was seconded by Professor Humphry, but did not receive any further support, and was consequently rejected by a very large majority. The memorial of the ophthalmic surgeons, praying for compulsory instruction and examination in ophthalmology, was rejected on the ground that sufficient attention is already given to the subject of ophthalmology in examinations of the College. And the petition of the obstetricians for an extension of instruction and examination in midwifery was also refused, on the ground that the Council did not think it desirable at present to enlarge the curriculum. The Jacksonian prize was presented to Mr. J. Priestley Smith, of Birmingham, for his essay on Glaucoma; and permission was granted to publish his essay, leave being given to him to remove temporarily, for that purpose, the preparations and drawings illustrating it from the College. The President, the Vice-President, Mr. Erasmus Wilson, Sir James Paget, and Messrs. Humphry, Marshall, Savory, and Holmes, were appointed the Erasmus Wilson Trust Fund Committee.

THE PLAGUE.

Professor Hirsch has reported to the German Sanitary Office that his investigations on the spot leave no doubt that the epidemic at Wetljanka was really one of true plague. He also states that besides being the actual focus of the disease, Wetljanka is the only place where it acquired an epidemic character. Isolated cases in surrounding districts were always traceable to infection from Wetljanka. An accurate scientific account of the epidemic is impossible, as all the physicians who were on duty during it are dead, without leaving behind them any notes of their observations. It appears, however, that the mortality was about 80 per cent. at Wetljanka itself, and equal to 100 per cent. in the outlying districts. There is a suspicion that the origin of the disease had some connexion with the war in Asia. The English Commissioners left Wetljanka, on April 12, to inspect the villages on the left bank of the Volga.

BRISTOL MEDICAL SCHOOL.

The annual distribution of prizes at this school, at which Mr. Lewis Fry, M.P., presided on May 5, was of special interest, owing to the fact that it was made the occasion for a statement of the important changes that have recently been completed in the constitution of the school. In the course of his report the Honorary Secretary, Dr. Markham Skerritt, stated that a new agreement had been entered into between the Medical School and University College, Bristol, according to which the School was affiliated with the College as its medical department, and would be provided by the College with new buildings and all necessary appliances, while the management of the School was placed in the hands of a governing body composed as follows:—Three members elected by the staff of the Infirmary, viz., Dr. Brittan and Dr. Long Fox, Consulting Physicians, and Mr. Prichard, Consulting Surgeon to the Infirmary; three members elected by the staff of the General Hospital, viz., Dr. Burder, Senior Physician, Dr. Siddall, Physician, and Mr. Lansdowne, Senior Surgeon to the Hospital; one member elected by the Committee of the Infirmary—Rev. J. Heyworth, the President; one member elected by the Committee of the General Hospital—Mr. Henry Naish, Chairman of the Committee; two members elected by the Faculty of the School, viz., Dr. Shingleton Smith, Lecturer on Physiology, and Dr. Markham Skerritt, Lecturer on Medicine; five members elected by the Council of University College, Bristol, viz., Mr. Proctor Baker, Treasurer (chairman); Mr. Budd, Chairman of Council; Mr. Lewis Fry, M.P., Vice-Chairman of Council; Rev. Dr. Caldicott, Head Master of Bristol Grammar School; and Rev. Professor Jowett, Master of Balliol College, Oxford. The work of the School was carried on by the Faculty, subject to the control of the governing body. In an able address, Mr. Lewis Fry, after referring to the Medical Act Amendment Bill, passed to the subject of the Bristol Medical School, and having given a sketch of its long and honourable history, proceeded to speak more particularly of the important changes that had recently been completed.

It was from the Faculty of the School that the idea emanated which resulted in the establishment of Bristol University College with the School as its medical department. At first the Council of the College had no share in the management of the School; but, as they had just heard, a governing body had now been secured in which all the interests connected with the Medical School had a fair and catholic representation; and the thoroughly efficient condition in which the School had now been placed led him to anticipate for it a future of prosperity and distinction. In moving a vote of thanks to the Chairman, Mr. Proctor Baker took occasion to point out the large pecuniary value of the prizes awarded by the School and by the Infirmary and the Hospital, which amounted to about £160 per annum.

THE MEDICAL REGISTER AND THE MEDICAL STUDENTS' REGISTER.

THE two Registers printed and published under the direction of the General Medical Council have now both been brought out, and, thanks to the skilled labour and care of the Registrar, Mr. W. J. C. Miller, are most satisfactorily edited works. The Medical Register for 1879 has appeared late in the year, but the delay has been caused by the very large number of corrections required in addresses. It must be remembered that according to the Medical Act the Register must include all registrations made up to January 1 of the year in which it is published, but it was intended that it should have been brought out some time in January. Such an immense number—many thousands—of corrections were, however, required that its appearance was unavoidably delayed. In future the Registrar hopes to publish it early in January each year. Practitioners would aid him in so doing by remembering—and should in their own interest remember—to send immediate notice (as enjoined by the Act) of all changes of address. The Register for this year has been improved in many parts, and notably by the change in the order adopted in the body of the work, so as to place the names of those registered in the first instead of in the second column of the Register. The total number of persons now on the Register is 22,600. The Medical Students' Register, containing the list of medical students registered during the year 1878, is also much improved, as regards matter, order, and appearance. It contains a carefully compiled and useful introduction; and has been brought out at an earlier date than heretofore.

THE HEALTH OF SIDMOUTH.

THE annual report of Dr. Thomas H. S. Pullin, the Medical Officer of Health for the Sidmouth Urban Sanitary District, for the year 1878, gives some interesting details on the temperature of that part of the country. During the year under notice the highest reading in the shade was 80°, and the lowest 22°, the mean of the year being 50°, or the exact mean of the preceding eight years, which is half a degree only below that of Penzance and Torquay. It is curious, he remarks, that the means of the *extreme* temperatures of Greenwich and Sidmouth for the last eight years are nearly equal, although the extremes so greatly differ: thus Greenwich records highest in shade 94°, lowest in the air 8°, and Sidmouth 81·5°, and 20°; it is therefore evident that the annual mean (if the *extremes* are not known) affords no criterion for judging of a climate. Sidmouth, it would appear from Dr. Pullin's observations, is eminently fitted for a health-resort, since the difference between the highest temperature in the day and the lowest at night was only 10·7, the mean of eight years being 11°; and it always has a comparatively cool summer temperature in the hottest seasons, on account of the extensive seaboard. The death-rate for the past year was 18 per 1000, all certified, and the percentage of deaths of children under one year, in proportion to births, was 7·2. Dr. Pullin is evidently indefatigable in carrying out all the necessary sanitary measures for preserving the health of the district, and he is consequently able to report an improved state of things in this respect during the past year.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE Council of the College held a meeting on Tuesday, May 7, pursuant to the provisions of the Suplemental Charter, to elect examiners for the ensuing year. The following gentlemen were elected, viz.:—Examiners to examine Candidates for Letters-Testimonial and Fellowship: B. Wills Richardson, Edward A. Stoker, Edward O'Grady, Wm. H. O'Leary, M.P., Henry Gray Croly, Wm. Thomson, Robert L. Swan, and William Fraser. Examiners to examine Candidates for the Diploma in Midwifery: Henry Croly, John R. Kirkpatrick, and William J. Smyly. Examiners to examine Candidates in General Education: Francis J. Davys, Michael J. Malone, and Robert Morton.

THE PRESERVATION OF CLEOPATRA'S NEEDLE.

THE Indestructible Paint Company, whose poducts we have before now had reason to praise, have been selected to apply their preservative solution to the Obelisk on the Thames Embankment. This solution, which is colourless, leaves no deposit on the surface, and does not in any way alter the appearance of the stone to which it is applied. But it effectually prevents the formation of vegetable growths, and the softest stone is rendered thoroughly waterproof from its use. In this way it is to be hoped that Cleopatra's Needle, which had begun to suffer thus early from change of climate, may, through its use, be preserved long enough to prevent the miscellaneous collection of articles deposited in the basement stone from becoming a subject of wonder to any but some very far-off generation of Londoners.

THE GERMAN UNIVERSITIES.

DR. FRANZ RIEGEL, Director of the Cologne Municipal Hospital, and well known for his researches on the pulse and the sphygmograph, has been called to succeed Professor Seitz as Professor of Medicine at Giessen. Professor Seitz has retired into private life. Professor Hitzig has left Zürich, and entered on his new function of Professor of Mental Diseases at Halle, and Director of the Nietleben District Lunatic Asylum.

THE LATE DR. MURCHISON.

THE *Berliner Klin. Wochenschrift* of May 5 speaks of Dr. Murchison in the following terms:—"As physician, investigator, and teacher, he took one of the highest positions in his native country; his work on Continued Fevers, (translated into German by Zuelzer), and that on Diseases of the Liver, assure him for ever a distinguished place in the history of medicine."

MEDICAL PARLIAMENTARY AFFAIRS.

Habitual Drunkards.—In the House of Lords, on Thursday, May 8, the Earl of Shaftesbury moved the second reading of this Bill. He referred to the successful establishment of retreats for habitual drunkards in America and Scotland, and the results achieved appeared to justify legislation as now proposed. The patient would not be forced into the retreat, but, finding himself suffering from a grievous disease, he voluntarily (perhaps after some persuasion from friends) gave himself up to a rational system of treatment. Drunkenness in many cases is a disease rather than a vice, and as such it ought to be treated by the Legislature. The Bill, being essentially permissive in its character, was generally supported, and was read a second time.

Rewards to Medical Officers in the Army.—In the House of Commons, Colonel Stanley, in reply to Dr. Ward, said that it was premature to consider what rewards and honours

should be given for the campaign in South Africa. This applied to the Army Medical Department, as well as to the combatant branches of the service. The promotion of Surgeon Reynolds was an exception in this respect.

Medical Reform.—Lord George Hamilton, in reply to Mr. Errington, said that the Government propose to embody in a Bill certain educational reforms which had been approved by a majority of the medical profession. The disputed question of the constitution of the Medical Council would be referred to a Select Committee, and after the report was sent in the Bill would be proceeded with. The Government are unable to proceed because the amendment of the hon. gentleman blocks the way. The Government do not care to refer all the questions of dispute in their Medical Bills to a Select Committee, for that would postpone indefinitely the prospect of medical reform. As soon as the amendments to the Medical Bills are withdrawn, and the Bills read a second time, they can be referred to a Select Committee.

FROM ABROAD.

The American National Board of Health.

"The last moments of the forty-fifth Congress will long be memorable" the *Philadelphia Medical Times* (March 15) observes, "for the swift haste with which two Bills of very great interest to the whole medical profession were crystallised into law." One of these new Acts, as our readers are already aware, was for the appropriation of $20,000 for the publication of the first two volumes of that great undertaking—Dr. Billings' catalogue of the National Medical Library. The other Act has created a National Board of Health. The Bill for this purpose was only brought in two or three hours before the closing of the session, and so hastily was it passed in fear of opposition, that some important clauses were, although passed, not officially recorded. It is, however, expected that these will be reinstated at the approaching extra session of Congress. The Act decrees that a National Board of Health shall be immediately formed, consisting of seven members appointed by the President with the advice of the Senate (their pay being $10 per diem and expenses whilst engaged on the duties under these Acts); one medical officer of the Army, of the Navy, and of the Marine Hospital Service; and one officer from the Department of Justice. The Board so constituted is to choose its president, frame its rules and regulations, and institute such special examinations and investigations in any part of the United States or foreign ports as it may deem fit. The duties of the Board will be to obtain information upon all matters relating to public health, and to advise the several departments of the Government and the executives of the different States on all questions submitted, and whenever, in the opinion of the Board, such advice may tend to the preservation or improvement of the public health. The Board has also to co-operate with State boards of health and quarantine establishments, and is authorised to contribute towards the expenses of these bodies. The Board is also required, with the assistance of the Academy of Sciences, to report its proceedings to Congress, and to deliver in a plan for a national public health organisation. For payment of salaries and expenses of the Board $50,000 were voted, and a further sum of $500,000 for carrying out the purposes of the Act.

"The permanent usefulness and scope of a proper National Board of Health do not seem to be generally understood. There has been, and still is, in this country, even among the medical profession, a strange apathy growing out of a lack of appreciation of what ought to be the relations of the national government to medicine. Thousands of dollars spent in dredging the seas, searching the poles, exploring the deserts, $250,000 appropriated during the past session for a new building to contain the 'curosities' thus acquired,—and yet we suppose not merely Congress, but our own profession, will look aghast at the boldness of the proposition that $100,000 be spent in building and equipping laboratories under the supervision of the National Board of Health, and $30,000 or $40,000 be annually devoted to their maintenance. Nevertheless, the nation ought to do this for its own preservation, and if the profession once realises the necessity, the laity will follow. Let us, then, all rejoice over what has been achieved, and gird ourselves for renewed effort until medical science has a centre at Washington comparable in power and activity with those of natural history, astronomy, and other abstract sciences already existing."

In the number for March 29, the *Philadelphia Medical Times* states—"The President has nominated the following gentlemen to be members of the National Board of Health:—Drs. Bemiss, of New Orleans; Henry Bowditch, of Boston; Stephen Smith, of New York; Henry Johnson, of Chicago; Cabell, of Charlotteville; Verdi, of Washington; and Robert Mitchell, of Memphis. As it was deemed essential that one homœopath should be on the Board, we suppose that Dr. Verdi is as good as anyone else: there is but little choice between nonentities. We believe that, on the whole, the composition of the Board will be received with great satisfaction by the general profession. Let us wait results."

GENERAL CORRESPONDENCE.

AMPUTATION AT THE HIP-JOINT.

Letter from Mr. W. J. Smith.

(To the Editor of the Medical Times and Gazette.)

Sir,—I would be glad if you could allow me to correct an error as to a matter of detail in your report of a paper on "Amputation at the Hip-joint," communicated by Mr. Pearce Gould to the Clinical Society on April 18. I have not for some time had a case under my own care of removal of the whole of a lower extremity, but can testify from personal observation as to the complete success that attended the use of Mr. Davy's lever in an operation of this kind recently performed by Mr. Armstrong, Surgeon to the Greenwich Hospital School. I am, &c., W. Johnson Smith.

Seamen's Hospital, Greenwich, S.E., May 13.

THE HABITUAL DRUNKARDS BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—The *Times* points out a danger in the Habitual Drunkards Bill. The applicant for admission into an asylum may be suffering from a passing physical depression, and, when it has passed, he may find himself deprived of liberty, without appeal. Will you allow me to point out that the law acknowledges that such a difficulty may arise in the case of candidates for service in the Army; and "Tommy Atkins" is permitted a certain interval to enable him to recover from a passing physical depression, and, on payment of "smart money," Tommy is once more a free man. I am, &c., Not an Habitual Drunkard.

ON THE PATHOLOGY OF TETANUS AND HYDROPHOBIA.

Letter from Dr. James Ross.

[To the Editor of the Medical Times and Gazette.]

Sir,—Some months ago I stated in your journal that I had found in the cortex of the cerebellum in tetanus changes essentially similar to those found in the spinal cord. These changes consisted mainly, though not entirely, of the infiltration of the tissue with colloid bodies. It would not interest your readers to know how, when I first observed these colloid changes in the cord in tetanus, I regarded them with curiosity but great suspicion; that on reading what was said with regard to them by Dr. Tuke, Mr. Kesteven, and M. Hayem, my distrust of them was increased rather than diminished; but that on finding these bodies frequently associated with acute processes, such as tubercular meningitis and acute myelitis, and absent in other cases, I began to treat them with greater respect, and ultimately came to regard them as being associated with acute diseased processes of nervous tissue. During the time in which I reposed confidence in these bodies I concluded, mainly on the evidence afforded by them, that the cortex of the cerebellum was diseased in tetanus, and the cortex of the brain in hydrophobia. The use of Dr. Bevan Lewis's freezing microtome, however, has more than brought back my original distrust of these changes, and I am now persuaded that pathological evidence based

upon the presence of these bodies and various allied appearances is untrustworthy. I wish therefore to withdraw the statement I made in your journal with respect to the cortex of the cerebellum. I should also wish my observations on tetanus and hydrophobia to be regarded in the meantime simply as confirmatory of the observations of others except in matters of detail.

I am, &c.,

Manchester, May 13. JAMES ROSS.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 25.

Dr. GREENHOW, President, in the Chair.

AFTER a few words from the President on the death of Dr. Murchison,

Dr. CROCKER exhibited a case of "Lichen Scrophulosorum," and Mr. PARKER a case of "Bromide of Potassium Rash exhibiting some unusual features."

OPERATION FOR URETHRAL STRICTURE.

Mr. HULKE read a paper on a case of retention of urine caused by impermeable urethral stricture, treated by tapping the bladder above the pubis, and later by external section, a catheter passed through the bladder, and a staff per penem, as far as the stricture, being used as guides. The man, an upholsterer, aged forty, was admitted on November 29 last, with retention of urine, which had begun early the same morning. There were frequent efforts at micturition, which were futile. Twelve years before he had been treated in Australia, but he neglected himself subsequently, and the stricture closed. The usual methods were employed to relieve the bladder without avail, and at 10 p.m. Mr. Hulke aspirated the bladder above the pubis. At 1 p.m. the following day no urine had been passed, and the bladder was again distended, so a long trocar was introduced above the pubis, and on the third day was replaced by a firm elastic catheter. Two slight attacks of pleurisy followed, but on January 3, all attempts to pass a catheter having failed, a No. 10 silver catheter was introduced through the prostatic urethra from above as far as the obstruction, a staff was passed along the urethra as far as the anterior face of the stricture, and the urethra was opened between the two; the lips of the incised part were then held open as in Wheelhouse's operation, and the staff was slipped into the bladder; over this a soft catheter was passed into the badder, and the staff withdrawn. Some bleeding followed the incision, requiring the temporary use of a plug; the supra-pubic hole soon closed, and in a short time the perineal wound contracted. The patient was now convalescent, and a No. 10 catheter could be easily introduced. Cock's operation had not been used, because the urethra was deflected to one side, and the proceeding described was employed instead. It was one suggested by Hunter, and adopted by Dittel of Vienna. The risk of extravasation was small—in seventeen cases recently reported no such result had followed; and the merits of the operation were its ease, and the facilities for later treatment of the stricture, as for antiseptic treatment of the wound. He alluded to "Hunter's Suggestions," to be found in a foot-note at vol. ii., page 292, Palmer's edition.

Mr. MARSH mentioned that, in looking over an old volume of the *Lancet*, he had met with a description of a similar treatment in a case of Mr. Howship's. Mr. Hulke was to be thanked for adding this method of treatment to our resources in these often difficult cases.

ICHTHYOSIS.

Dr. CROCKER read notes of a case which had been already exhibited. The patient was a boy, aged ten, in delicate health; the mother was also delicate. There was no history of syphilis. Several raw patches had been seen at birth; these healed in seven weeks, and warty growths began at once to appear in their neighbourhood, but for the last three years they had been stationary. The body was thickly covered, not symmetrically, but extensively, with these growths. The soles of the feet and one palm were free; in places they were almost horny. Ung. picis co. had been used freely, and there had been some improvement, although it was not very marked. A portion had been examined microscopically, and the growth proved to be ichthyotic. The appearances were described, and the differences from a warty growth pointed out. He had to thank Dr. Duckworth for a reference to a similar case published in the *St. Bartholomew's Hospital Reports*, where, however, xeroderma had co-existed. The want of symmetry in this case was chiefly remarkable.

TRACHEOTOMY IN BILATERAL PARALYSIS OF THE POSTERIOR CRICO-ARYTÆNOID MUSCLES.

Dr. SEMON read the sequel of a case which he had brought under notice of the Society in the spring of last year. Although he had then expressed himself strongly in favour of the early performance of tracheotomy, he had given his patient a fair trial with the direct application of electricity to the paralysed muscles. This treatment, which had been daily executed from April of last year until February 17 of this year, had afforded considerable subjective relief to the patient, who had never since had any of the suffocative attacks to which he had been formerly subjected, but there was only very little, if any, improvement in the actual stenosis of the glottis. On the morning of February 20 a message was brought to Dr. Semon that the patient, who had been well up to the foregoing evening, had come home from his duty at midnight with some dyspnœa, and that this had increased during the night; that he had become insensible in the morning, and that he was evidently dying at the time the messenger left his house. A neighbouring practitioner had been called in, but had stated that he could not do anything for the patient. Dr. Semon hurried at once to the house, and found the patient *in extremis*, evidently dying from carbolic acid poisoning produced by the insufficient entry of air into the lungs. He immediately performed tracheotomy, cutting with one incision through all the tissues and through the trachea, inserted a large tube, and started artificial respiration. It was, however, not till after for three hours and a half permanently and laboriously thus keeping up the respiration that the patient commenced breathing spontaneously. The blood which had run down from the wound into the trachea and the bronchi was repeatedly sucked out by means of an elastic catheter passed down through the silver tube. Ultimately, the patient recovered, but his convalescence was retarded by the effects of the carbonic acid intoxication. Dr. Semon had brought the case forward mainly because it raised the large question, "Under what circumstances, and at what period of the disease, is tracheotomy to be performed in these cases?" It had been lately stated by Mr. Lennox Browne that tracheotomy could be probably often avoided in these cases, because relief was afforded by milder remedies and methods. However, in Mr. Browne's own case illustrating this view, there was still considerable actual stenosis of the glottis in spite of the disappearance of the subjective symptoms, and thus the patient was, as Dr. Semon's case clearly proved, far from being out of danger. With regard to the facts—1. That a mere subjective improvement gives no guarantee against a sudden fatal aggravation of the present state from quite trivial causes, such as a slight laryngeal catarrh; 2. That even the presence of a medical man, if he be unaware of the nature of the disease, does not give material guarantee for the saving of the patient's life; 3. That the chances of the operation become the worse the longer it be postposed—Dr. Semon finally proposed the following general principle for the treatment of these cases:—"In a case of bilateral paralysis of the posterior crico-arytænoid muscles, in which a considerable stenosis of the glottis has taken place and marked dyspnœa is present, unless within a short time not only subjective relief, but an actual enlargement of the glottic opening, has been obtained by whatever method might be employed, then tracheotomy ought to be performed without delay, not as a means of cure, but as a prophylactic measure with a view to the subsequent removal of the tube, in case any later therapeutical efforts should produce a real cure of the affection." In illustration of the disease Dr. Semon showed another instance of the same affection in which a hitherto undescribed laryngoscopic appearance is to be noticed. The vocal cords come completely together during vocalisation, but during deep inspiration the anterior two-thirds of the vocal cords remain close together, and the posterior thirds

only separate, leaving a triangular space between their borders and the inter-arytænoid fold. Thus the bilateral paralysis is incomplete. In accordance with some recent physiological observations of Ruhlman, Dr. Semon explained this appearance as being due to the fact that most likely only the outer fibres of the posterior crico-arytænoid muscles, which remove the arytænoid cartilages in their entirety from the inner surfaces of the crico-arytænoid articulations to the outer ones, were paralysed, whilst the inner ones could still exercise their function of rotating outwards the vocal movements of the arytænoid cartilages. If then, secondarily, a paralytic contraction of the antagonistic muscles set in, the result would be that seen in this case. This explanation was only offered as a hypothetical one, but its possibility was demonstrated on Professor Bertel's, of Munich, model illustrating the movements of the laryngeal muscles. Dr. Semon further said that he had seen this incomplete paralysis but twice, viz., in this and in Mr. Browne's case. The dyspnœa had been sufficiently great as to induce him also in this case to perform tracheotomy, the electric treatment having proved useless. In conclusion the lecturer stated that since their convalescence he had treated both his patients with daily subcutaneous injections of sulphate of strychnia, but without any subjective or objective success. Opportunity was given to the members to examine for themselves the laryngoscopic appearances in both cases.

Mr. Lennox Browne thanked Dr. Semon for bringing forward this case, which, as he had expected, had been a practical commentary on one which Mr. Browne showed last year. In his patient he had employed strychnia hypodermically, with both subjective and objective relief. He doubted as to the possibility of curing these cases, and he was quite alive to the advantages of tracheotomy. But when the patient receives considerable benefit from treatment, it is difficult to persuade him to submit to operation. Perhaps, too, there was a tendency to put aside the use of therapeutics after the operation, which was a disadvantage. In a later case that he had treated he had used strychnia only; the patient was very ill, but, with the exception of a slight relapse from catching cold, he had steadily improved. He quite allowed the difficulty, which was, that a patient might at any time suddenly be suffocated.

Dr. Hall added his testimony as to the marked improvement which had followed the use of galvanism in this case, but he agreed as to the advisability of tracheotomy, as a general rule. He would wish to ask Dr. Semon what relationship existed here between the paralysis of the glottis and the locomotor ataxy from which the patient was suffering.

Dr. Semon, in reply, said that after the operation strychnia had been fairly tried, in doses of from one-thirtieth to one-tenth of a grain; the results had been negative, at which he was not surprised. Sometimes electricity, sometimes iodide of potassium, were beneficial, and hollow bougies had been recommended; but he did not anticipate any permanent benefits from these remedies, and when there was no objective improvement after a fair trial, operation should be performed. He did not recognise any connexion between this disease and locomotor ataxy; they so very frequently existed independently.

Lichen Scrophulosorum.

Dr. Tilbury Fox read notes on a case of this disease which was shown by Dr. Crocker. One of his patients was a lad aged seventeen, delicate and tuberculous; he had had hemiplegia, and suffered from enlarged lymphatic glands. Four years ago he came to the hospital with ill-developed lichen circumscriptus, but improved under treatment; but six weeks after his return from the seaside, he came back to the hospital with the disease in its present condition. The follicles were raised over large surfaces, but here and there were patches more raised than the rest, varying from a threepenny-piece to a five-shilling-piece in size, of a faint red colour, and occasionally crusted; there was no itching, but after a time acne spots appeared. In these cases it was usual to find some pulmonary complication. They corresponded to Hebra's lichen scrophulosorum, but Hebra did not describe any disseminated papules. The acne spots came on later. In Dr. Crocker's case there were none. The great point was to recognise its amenability to cod-liver oil, and these were his reasons for introducing the subject.

Dr. Crocker had met with his case a few days before. The disease, though slight, corresponded in all respects with Dr. Fox's description, except that there was some itching.

Rodent Ulcer of the Scalp treated by Excision.

Mr. Morrant Baker said that the patient in this case had first been seen in July, 1873. There was at that time a painful ulcer over the left parietal bone. It had begun in a pimple three years before. It was treated with nitric acid, and later with Vienna paste. In 1877 the ulcer had much increased in size, and the patient was exhibited at the Medico-Chirurgical Society by Mr. Gaskoin. After this, in 1878 he was readmitted to St. Bartholomew's Hospital, and Mr. Baker excised half the ulcer in April, when the pericranium was involved. The gouge was applied a month afterwards; the other half was similarly treated, and the resulting sore dressed with iodoform. Chloride of zinc paste was afterwards applied to a few superficial patches, but by December 12 the greater part was healed. Over the centre of what had been the ulcer were some suspicious points, and under the sterno-mastoid was a painless enlarged gland. The microscopical appearances had been already recorded by Dr. Thin, in the *Medico-Chirurgical Transactions*. He recorded this case because he had hardly expected to do so much good by excision. The wound was not healed, it is true, but the patient was placed in the condition in which he had been five or six years ago.

Dr. Thin advocated the employment of the knife on pathological grounds, as less likely to leave a soil favourable for the recurrence. The spoon was well adapted for lupus, but hardly so well for the disease in question. There was no reason why enlargement of the lymphatic glands should not follow rodent ulcer, just as it followed epithelioma. Besides, the diseases were often confused with one another.

Mr. Bryant dwelt on the importance of destroying the ulcer, and it did not matter, in his opinion, whether a blunt knife or a sharp spoon were used, if the disease were removed thoroughly. He, perhaps, was hardly satisfied about the distinctive points between rodent ulcer and epithelioma; but in cases that were clinically rodent ulcer, his results after scraping had been satisfactory.

Mr. Baker replied, and the Society adjourned.

THE PATHOLOGICAL SOCIETY.

Extra Meeting, Tuesday, April 29.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

The late Dr. Murchison.

The President said that, before announcing the programme for the evening, he must allude to the sad event which had occurred since the former meeting. All knew how very zealously Dr. Murchison had worked in connexion with the Society for a period of nearly twenty years. He had not only been a most regular attendant at the meetings, but had also contributed to their *Proceedings* some of the most valuable papers; and had filled, with great credit to himself and advantage to the Society, the offices of Secretary and Treasurer; and it seemed only yesterday that he vacated the Presidential chair which he had so worthily occupied. And to many of them his loss was even more keenly felt as that of a personal friend, for while one of the foremost, he was also one of the most unselfish and single-minded of men. Might they long cherish his memory and seek to emulate his virtues.

Suppurative Phlebitis following Cystitis.

Mr. Walsham exhibited the bladder, urethra, ureters, and kidneys, with the vesical, iliac, and femoral veins of the left side, taken from a patient who had died of cystitis and blood-poisoning. The veins were in a condition of suppurative phlebitis, being filled with purulent thrombi, and this phlebitis the speaker attributed to the cystitis. Such a causation for the phlebitis was rare, though thrombosis of the pelvic veins was not uncommon after operations on the pelvic organs, after parturition, and in chronic exhausting diseases. The patient had been admitted into hospital with a severe compound fracture of the right tibia and fibula. There was no definite history of any previous affection of the bladder; but after some time, when the fracture was progressing favourably, the patient had unfortunately allowed his bladder to become over-distended, and severe

cystitis supervened. Three days after the relief of the retention, the left leg became œdematous up to the groin, and signs of pyæmia set in, and an abscess formed in the course of the superficial external pudic vein. The patient died about a month after the cystitis began. At the post-mortem examination, the mucous membrane of the bladder and the posterior third of the urethra were found acutely inflamed, and in some places superficially ulcerated and encrusted with phosphates. The ureters and pelves of the kidneys were dilated and filled with purulent fluid. The vesical and prostatic plexuses of veins about the neck of the bladder were occluded by thrombi; but the veins over the upper fundus of the bladder and those about the prostate were not blocked. On the right side the thrombi were not purulent, and did not extend far, but on the left side the thrombi were purulent and extended into the internal and common iliacs, and also down the external iliac and femoral veins, and even into many branches of the last. In the course of the profunda vein, which was also filled with a thrombus, there was found a large abscess, which had not been apparent during life. Mr. Walsham thought that as there had been no particular signs of exhaustion or of blood-poisoning up to the onset of the cystitis, the condition of the patient generally and of the fracture specially having been perfectly satisfactory, he was justified in regarding the cystitis as the cause of the phlebitis. If, however, the phlebitis had occurred mainly on the right side, it might have been attributed to the extension of a thrombus from the veins at the seat of injury. The sequence of phlebitis upon cystitis was only what might be readily expected. Drs. Wilks and Moxon had mentioned a similar case in which suppurative phlebitis of the pelvic veins and pyæmia resulted from gonorrhœa without any abrasion of the mucous membrane.

Retrogressive Lymphadenomatous Growths.

Dr. Coats (of Glasgow) exhibited, for Dr. Gairdner, specimens of tumours taken from a man aged fifty-two, who had been under the care of Drs. Thomson and Norrie, of Dumfries. About twelve or fourteen months before his death, the patient began to observe tumours in his abdominal wall, the tumours appearing and disappearing at intervals, according to his own account. After six or seven months he was seen by Dr. Thomson, who then found a large tumour, four inches by three, in the abdominal wall, near the anterior-superior spine of the ilium, having the characters, when first seen, of a fatty growth; it was repeatedly examined at short intervals for a week or two, but after a few months had passed could not be seen at all when again looked for. Ten months after the first appearance of these swellings the patient's general health began to fail, and he suffered from sickness and vomiting. He was now seen by Dr. Gairdner, who found as many as thirty-four tumours over the body, most of them being situated subcutaneously, though some were deeper. The patient's sickness and vomiting continued, and death took place soon afterwards. Post-mortem there were found numerous tumours, not only in the subcutaneous tissues, but also in the connective tissue of the abdomen. In the fatty capsule of the right kidney there were several, quite distinct both from the kidney and from the supra-renal capsule. The left supra-renal body was apparently involved in a mass of similar tumours, many of which were breaking down like blood-clots. One large tumour almost occluded the calibre of the intestine, and there were several in the mesentery. He (Dr. Coats) had found the tumours composed of a coarse reticulum, in which there were many round lymphoid cells. The tendency seen in several of them to hæmorrhage and breaking down might possibly explain the absorption and disappearance of those that had vanished during the life of the patient. The exhibitor requested that the specimens be referred to the Morbid Growths Committee.

Dr. Norman Moore asked whether any change had been observed during the life of the patient in the condition of the blood. In a recent case in St. Bartholomew's Hospital, where there had been many tumours in various parts of the body, among them a large one near the kidney, the white blood-corpuscles had been found markedly increased, though hardly to the degree characteristic of leukæmia. But in that case there had been no history of absorption of the tumours.

Dr. George Thin had seen a case at Vienna, in the *clinique* of Hebra, exactly similar to the one reported by Dr. Coats, only there was even a greater number of superficial tumours in the former than in the latter case. That one had been unique in Hebra's experience, and there was much discussion as to its real nature. Post-mortem, many growths had been found in the cellular tissue of the abdomen, as in Dr. Coats's case. Some of these had been sent to Ranvier of Paris for examination, and he had declared them to be lymphoid in character. He (Dr. Thin) did not see that such growths should necessarily be considered lymphoid, although they were found to contain lymphoid cells, for any inflammatory lesion under the skin would be attended with the exudation of white blood-corpuscles. Another case had just been reported by Dr. Duhring, of America, under the name of inflammatory neoplasm, which also seemed from the microscopic description to be of a similar nature.

Sir James Paget said the report of such a case was useful, as likely to help in the explanation of those rare instances in which tumours diagnosed to be cancerous had disappeared after a time. He suspected that there was a greater number of such cases on record than might be imagined, and the collection of them would be an interesting and important undertaking. Three cases of the disappearance of tumours in this way were known to himself. One was in the person of a young man, who had suffered for two or three years with what appeared to be ordinary lymphadenomatous growths, there being clusters of enlarged glands in the neck, axilla, and groins. The patient had also paraplegia—a symptom he had found in another case of lymphadenoma. Within a week these tumours all suddenly disappeared, but the patient then began to suffer from dyspnœa, and soon afterwards died, no autopsy being allowed. Another case, mentioned in his lectures at the College of Surgeons, was regarded as one of multiple medullary cancer (what would now be called small-celled sarcoma), and the microscope corroborated this diagnosis. The growths occurred in the neck and axilla. There was also a very large mass over one deltoid, which suppurated and sloughed, during which process nearly all the other growths disappeared. The man recovered, and enjoyed good health for some months; but the growth afterwards recurred, and caused death. The third case was one which he had diagnosed as medullary cancer of an undescended testis. There was a tumour as large as two fists, and he had prescribed liquor potassæ and iodide of potassium, under which treatment the mass soon entirely disappeared. In eight or ten weeks, however, it recurred, but disappeared again under the same treatment. This also happened a third time; but, having recurred a fourth time, it was no longer amenable to treatment, and the patient died. The microscope confirmed his original diagnosis as to the nature of the growth.

Dr. Wilks also thought that such cases were not so very rare as was thought. There was at present in Guy's Hospital a girl who had had tumours of the arm, shoulder, and groin. All the tumours had disappeared except that of the arm. He had regarded them as of a lymphoid character. Many years ago he brought before the Society a young woman who presented at first a number of soft tumours over the body, which afterwards disappeared. These were regarded at the time as blood-cysts, but they may have been of the nature of these lymphoid growths.

Mr. Butlin recalled the case of a boy he had already brought before the Society, in which there had at first been tumours in the parotid region, and afterwards in the testes and abdomen. All the tumours were found to be lympho-sarcomatous on microscopic examination. The left testicle had increased in size till death; while the other had diminished somewhat though not entirely. He had found the pelvic glands much more affected on the right side than on the left, and he had a notion that this difference was connected with the changes of the testes, those on the right side having probably become more involved as they relieved the testicle of that side of its morbid products, whereas on the left side the testicle had gone on unrelieved.

The President mentioned that, in the discussion on lymphadenoma, Sir W. Gull had stated very prominently that he had seen spontaneous disappearance of lymphoid tumours in this way.

Dr. Barlow mentioned the case of a boy in which lymphadenomatous tumours of the mediastinum, which had deflected the trachea from the middle line, rapidly disappeared at that site before death. He had seen another similar case attended with considerable pyrexia. In a third case, a patient of Dr. Stephen Mackenzie, the tumours had rapidly disappeared under arsenic.

Dr. Stephen Mackenzie corroborated the last statement. The patient, after taking fifteen drops of liquor arsenicalis daily for a week, began to improve, and after a fortnight the swellings diminished so rapidly that the patient declared most of the diminution had taken place in a single night. He believed the patient was now quite cured. Another case, presenting subcutaneous tumours believed to be of syphilitic origin, had been treated with iodide of potassium, and in three weeks the tumours had entirely vanished. Syphilitic growths were of course very similar histologically to these lymphadenomatous tumours, and when the former disappeared so quickly with iodide of potassium, he thought it need not be wondered at if the latter should also be found to disappear very rapidly.

Dr. Wilks wished to add his testimony to the great value of arsenic in these cases of lymphadenoma. All the cases he had seen improve had been treated with arsenic.

Dr. Coats, in reply, could not say whether the blood had been examined during the life of the patient. The object in view in bringing forward the case had been already in great measure attained by the interesting discussion it had called forth.

Sub-periosteal Sarcomatous Tumour of Femur.

Mr. John H. Morgan exhibited this specimen, taken from a girl aged three years and a half, on whom he had performed amputation at the hip-joint. Five months previously the patient had become unable to walk on account of pain in the right knee; and swelling of the thigh took place, commencing at the knee. There was no family history of malignant disease. The swelling of the right thigh continued, until it measured eleven inches in circumference at the lower part; the left one measuring only eight inches. The affected limb was hotter than the other, and the veins were unusually prominent. There was much tenderness on pressure over the inner condyle, and a sense of fluctuation through the swelling made the diagnosis at first rather difficult. A peculiar feature was constantly recurring attacks of very acute pain—a symptom which the speaker had noted in another similar case; and thought might be of value in a diagnostic point of view. The cause of these paroxysms was doubtful; in one case he found there had been hæmorrhages into the tumour-mass, but perhaps that was a mere coincidence. After the amputation, in the case now reported, the girl made a good recovery. The tumour was found to be confined to the diaphysis of the femur, the epiphyses and the knee-joint being uninvolved. The periosteum was raised over the mass and was thickened throughout, and for about an inch at the upper part was converted into a bony ring. Thin fibrous processes extended between the periosteum and the bone, and between the fibrillæ the cells of the tumour were lodged. At the popliteal space the growth had encroached so much on the bone as to expose the medullary canal. There was much calcareous matter through the tumour, which presented, under the microscope, the characters mainly of round-celled sarcoma, though there were also some spindle-shaped cells.

Spontaneous Disintegration of Urinary Calculi.

Dr. Miller Ord exhibited two series of specimens which had been supplied to him by Dr. Kraus, of Carlsbad, and by Mr. Croft. He (Dr. Ord) reminded the Society that he had already brought before them three cases of spontaneous disruption of calculi within the bladder from forces arising within the calculi themselves. The specimens he now exhibited illustrated spontaneous disintegration by the action of other forces. Dr. Kraus's specimens were from a retired farmer, aged seventy-eight, who had enjoyed excellent health until, in 1873, he suffered from gall-stones. His urine was saturated with uric acid, and presented no albumen or sugar, or evidence of pyelitis. Next year he began to have dull pain in both kidney regions; and he had an attack of severe renal colic, affecting both sides, with uræmic symptoms for a short time, followed by a scanty discharge of alkaline urine containing a little blood and pus. The urine gradually became acid again; and he passed, at different times, with very little pain, small uric acid concretions. There was also some difficulty in micturition, as if more kidney concretions remained in the bladder. Within the next two months he continued to pass numerous fragments, belonging probably to twenty-six or thirty originally distinct calculi, of the size of a small hazel-nut. He had afterwards perfectly good health with no urinary trouble. The specimens of the fragments exhibited were all very small—the largest being not greater than half a small dried bean. Some few were perfect spheres, but most were of irregular shape, and evidently resulting from the breaking up of concentrically laminated calculi, with an investing granular incrustation different from the mass of the concretion, and plainly superadded after the fracture of the original calculi. Chemical examination showed that the latter were composed of uric acid with a scanty matrix; and that the incrustation consisted of a very acid urate of ammonia, with no intermixture of phosphates. It must, therefore, have been superimposed on the fragments from an acid urine; whereas, in the cases formerly reported by the speaker, there had been evidence of a change from acid to alkaline urine—a change which he supposed had caused the disruption in these cases. The calculi now exhibited were very loosely constructed physically, so as to be very liable to disruption by causes affecting the disposition of their molecules. In his work on "Molecular Coalescence," Mr. Rainey states that certain loosely-built spherical bodies, which he had formed by depositing a mixture of carbonate of lime and triple phosphate in a solution of gum, underwent complete disintegration when placed in another solution of gum of different density. So, in the case of the calculi under consideration, disintegration may have resulted from variations in the density of the urine, as indicated in the clinical history. He had tried to verify this view by immersing some fragments in a neutral solution of soap, with the result that they were afterwards very easily broken up. The great number of the calculi in this case may also have promoted their disintegration by their mutual collisions. The specimens supplied by Mr. Croft were from a man aged sixty-four, who had had left renal colic three years previously, and dysuria with general symptoms of stone for twelve months before admission into hospital. During the three years he had passed about fifteen small calculi. When admitted he felt intense pain in the bladder, for the relief of which lithotomy was performed, although the patient was obviously in a dying condition. Forty fragments were removed from the bladder, corresponding to three tolerably large flat oval calculi, the largest of which had probably weighed about 230 grains altogether. Three rather large pieces represented the central part of the three calculi, and they had all been composed of a tolerably hard incrustation, separated from a harder nucleus by a soft loose intermediate layer. Chemically they were nearly all pure uric acid, but physically the outer layer and the nucleus were composed of an intimate mixture of uric acid with an organic basis, while the intermediate layer was found to consist of large rhombohedra of uric acid loosely aggregated together with only a minute quantity of matrix. It was the existence of this loose, soft intermediate layer that was the probable explanation of the disintegration in this case, leading to easy cracking of the crust upon the impact of the calculi one on another. The different fragments were invested with a faint white granular coating, and the edges were slightly smoothed, so that disintegration must have taken place some short time before the lithotomy. On the whole, therefore, it would thus far appear there were three main methods whereby calculi might suffer spontaneous disintegration—1. From forces arising within the calculi themselves; 2. From the loose character of their molecular arrangement; 3. From the weakness of one layer within the crust allowing its easy disintegration.

Pathology of Hydrophobia and Tetanus.

Dr. Ross (of Manchester) exhibited microscopical sections illustrative of the changes in the nervous system in hydrophobia and tetanus. He found—(1.) The vascular engorgement along with evidences of effusion of a granular material and migration of leucocytes, previously described by Allbutt, Lockhart Clarke, Dickinson, Benedikt, Coats, and Gowers. (2.) The yellow degeneration of the ganglion-cells described by Allbutt. (3.) In two cases of tetanus and two of hydrophobia he found a large number of colloid bodies, and what appeared to be the condition described by Dr. B. Tuke and by Mr. Kesteven as "miliary sclerosis." But as these cords were partially hardened in spirit, Dr. Ross was doubtful how far these appearances might be regarded as evidences of disease. He was specially suspicious of the pathological significance of the colloid bodies. The most marked changes

in the cord were found on each side of the central canal, but both the posterior and anterior horns of the grey substance were affected. In tetanus the vesicular column of Clarke was always injured, often completely restored; and it was also injured, but to a less extent, in hydrophobia. A distended vessel was generally observed to pass between the median and antero-lateral group of ganglion-cells of the anterior horns, and the ganglion-cells on each side of it were destroyed, the destruction of cells being usually to a greater extent in tetanus than in hydrophobia, but always found. A similarly distended vessel was frequently observed passing through the postero-lateral group, the destruction of ganglion-cells being here usually more marked in hydrophobia than in tetanus. In the inferior portion of the hypoglossal and spinal accessory nuclei the cells were found nearly completely destroyed in tetanus; those of the hypoglossal were less injured in hydrophobia; but the damage to the spinal accessory and vagus nuclei was much greater in hydrophobia than in tetanus. The morbid changes found in the medulla in hydrophobia corresponded closely to that described by Dr. Gowers. In two cases of tetanus, vascular changes and colloid bodies were found in the cortex and subjacent white substance of the cerebellum. In hydrophobia, vascular changes, colloid bodies, and at times yellow degeneration of the large cells of the fourth layer of the cortex of the brain, were observed. The condition described as "miliary sclerosis" was observed in two cases of hydrophobia. In the cord the patches occupied the posterior and antero-lateral columns. Beyond the cord the patches were observed in the anterior pyramids of the medulla; and in their continuations through the pons, middle third of the crusta, and middle third of the internal capsule. Similar patches were observed in the formatio-reticularis of the medulla, and in the portion of the pons which is the continuation of the anterior root-zones of the cord, and also in the part of the corpus striatum adjoining the internal capsule. If not for the curious limitation of these patches to what may be regarded as the voluntary and emotional afferent channels from the cortex to the cord, Dr. Ross would not have considered them worthy of special attention. The condition of the cord and of the medulla appears to be very much the same in the two diseases, while the differences in the symptoms would seem to be due to the fact that in tetanus the morbid changes are directed more to the cerebellum, while in hydrophobia the cerebrum is more affected. This hypothesis would at least have the merit of explaining why in tetanus the tonic actions of the body are disturbed, while there is almost complete absence of psychical disturbance; and, on the other hand, why the psychical disturbance is so prominent a feature of hydrophobia.

Dr. F. Taylor said that he, like Dr. Ross, had grave doubts as to the pathological significance of colloid bodies. He had observed they were most frequently seen in specimens which had been hardened in spirit, and he had good proof that spirit does produce them, in the fact that while one portion of a cord which had been in spirit showed them in abundance, in the other portion of the same cord which had not been exposed to spirit they were absent. Though it was difficult to say in what precise conditions they arose, he thought they were probably due to post-mortem changes.

Mr. Golding Bird referred to a case of tetanus, the cord from which he used for demonstration purposes, as a perfectly normal one in all respects.

Dr. Ross, in reply, said that although he was very doubtful as to the morbid nature of these colloid bodies, he could assert that he had found them in specimens which had never been touched by spirit or chromic acid. He had even found them in cases where there was no special nervous disease, as in caseous pneumonia. He thought, therefore, they were clearly not always the result of post-mortem change.

Hæmorrhage into the Cerebellum.

Dr. Allen Sturge showed a recent specimen taken from a man aged forty-three, a hard drinker, who at 10 a.m. on April 25 was seized with vomiting and giddiness. The vomiting lasted all the morning, but he went to his work. At 1.30 p.m. he became suddenly comatose, and remained so till his death at 9.30 p.m. Post-mortem, a large hæmorrhage was found in the cerebellum, destroying the greater part of the right lobe. The hæmorrhage had burst into the fourth ventricle and passed up the aqueduct of Sylvius, which it had greatly distended, into the third ventricle, and thence into the lateral ventricles. The arteries were much diseased, and the kidneys in an early stage of granular change. Dr. Hughlings-Jackson, in his article on Apoplexy, in "Reynolds's System of Medicine," stated that he had never seen a case of cerebellar hæmorrhage. Two cases had been reported by Dr. Broadbent, in the twelfth and fifteenth volumes of the Society's *Transactions*, and a case had been recently reported by Dr. Mackey of Brighton.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, May 7.

W. S. Playfair, M.D., F.R.C.P., President, in the Chair.

Discussion on the Use of the Forceps, and its Alternatives in Lingering Labour.

After the reading of Dr. Barnes' paper, which will be found *in extenso* elsewhere,

The President said: I am sure, gentlemen, I shall be expressing the unanimous opinion of the Society if I state how deeply indebted we are to Dr. Barnes for his very interesting and philosophical paper. It is one of the most valuable contributions on the use of forceps with which I am acquainted. I shall not now trespass upon the time of the Society by making any observations, inasmuch as there are several gentlemen present who have come from a great distance, and whose views on the subject of discussion we shall all be anxious to hear. I may just say that the one point on which Dr. Barnes did not seem to me to enter so largely as the terms of the discussion might have admitted, and upon which we shall be pleased to hear the experience of any gentlemen who will enter into it, is the value of uterine compression and ergot as taking the place of the forceps.

Dr. George Kidd (of Dublin), being called upon by the President, said: I would rather that some of your London leaders had risen to open this discussion. I came here far more to obtain information than to take any part in the proceedings. The subject is one which has, however, occupied a great deal of my attention, and a great deal of the attention of the Dublin Obstetrical Society, for some time past. With regard to the use of the forceps in what may be called the low operation, I believed we are all agreed that it is advisable—that it contributes to the safety of both the mother and the child. Some eight or ten years ago, when I first had the honour of sitting as President of the Dublin Obstetrical Society, I laid before the Society an analysis of the published reports of the Rotunda Lying-in Hospital, in which I attempted to show, and I still believe I did show, that in proportion as the forceps were freely used in cases of difficult and tedious labours the deaths of the mothers decreased and the lives of the children were saved. I scarcely think it necessary to occupy the time of the Society by dwelling upon this point. The more important point, I think, is with reference to the high operation, as it has been called. Now, Dr. Barnes has spoken to-night of the high operation, and I think he has not clearly defined it. The proposition that has been made of late days is that we may use the forceps before the os uteri is dilated. Now, as the term "high operation" has been generally accepted as applying to where the os is dilated, but the head is still lying at the brim, on that point there can be little difference of opinion. If the os is fully, or nearly fully, dilated, and the head lying at the brim, and making no progress, I do not think any of us will hesitate to apply the forceps in that case. But when a gentleman tells us that with an os that will barely admit the top of his finger he would proceed then to apply the forceps, he throws down a challenge which I for my part cannot resist. The important and essential point, I believe, is this: Are we to use the forceps where there is an undilated os uteri? Dr. Johnston, who is the great advocate for the early use of the forceps, and the use of it in the first stage, lays it down as a rule that it may be used with an undilated os uteri, but it must be a dilatable os. I believe that there are many of these cases in which it is quite unnecessary to use the forceps, and that there are many in which some of the alternatives will be a great deal safer for both mother and child. You may have an undilated os, but in a dilatable condition, under varying circumstances. In the first place, it is not uncommon to

meet with the os in this condition when the membranes have not ruptured. I have seen cases where a patient has been many hours in labour, and the os has not yielded; the cervix is full, the membranes are unbroken, but they do not come down so as to press upon the os and dilate it. The os may be not larger than will admit the tip of the finger. But, sir, if one were to introduce the finger into that os and detach the membranes around the cervix, wait a little time, and when a uterine pain comes on make a little gentle pressure with the pulpy part of the finger against the margin of the os, that os will dilate, and the membranes will soon come down and form a wedge-like protrusion through the os and dilate it sufficiently, and the patient will deliver herself in a short time without any interference of instruments. I believe that is a much safer and better practice for both mother and child. Then, sir, you have the os undilated, but in a dilatable condition, after the membranes have broken. The membranes may break early, and the os dilate. The head comes down upon it and takes the place of the membranes, and in a little time will dilate that os. There may be delay about it, it may be a slow process, it will be a painful process, more painful to the patient than if the membranes were unbroken, but it is a process which will be accomplished in a short time, and which the obstetrician may greatly assist without the use of the forceps. If he pass his finger into that os and sweep it gradually and cautiously round, it will yield very quickly before him. If the patient has been properly treated, that os will yield in a short time with very little assistance; but if she has been over-stimulated and over-heated, and encouraged to make voluntary exertions, and the head is forced violently down upon it, she may become feverish, and the parts become inflamed, and you will have a quick pulse and a great deal of restlessness and pain. Still, I do not believe it is a condition in which it is wise for us to introduce the forceps. If we have an os uteri dilated two-fifths, as Dr. Johnston has proposed to measure it by fifths, or to the extent of about an inch and a half in diameter, to proceed in that condition to introduce the forceps, to drag the head down through it, is, I believe, a dangerous practice—a practice very likely to lacerate the uterus, and to be followed by evil consequences to the mother. Whereas by making use of some of the alternatives—letting the patient have a warm bath, douching her with warm water, giving her a good dose of chloral, or putting her under the influence of chloroform—in a few hours, or less than hours, perhaps, the os will dilate, the parts will become soft and yielding, and the head will come down through it, and then, if necessary, you can employ your forceps with safety and with advantage. But there is a class of cases in which the head remains above the brim and the os is not fully dilated, in which I am sure to apply forceps is a good practice and a very desirable one; where there is some minor disproportion, where you have a malposition, where you have an occipito-posterior presentation of the head, and the head does not come down upon the os to dilate it. The membranes have dilated it so far that at length they have given way, and the os remains with no pressure upon it, because the head cannot come down to press upon it. If you leave a patient to the throes of labour unaided and unassisted, you will soon have powerless labour set in; the uterus will become inflamed, the woman will become feverish, and you endanger her life. In a case of that kind I quite go with the proposition that to use the forceps is a useful and most desirable practice. I think it is not a little remarkable that in Dr. Johnston's 169 cases in which he applied the forceps before the os was dilated, he had nine deaths—that is, more than 5 per cent. of his cases died. But we all know that, as a rule, delay in the first stage of labour is not attended with such an amount of risk as this. Dr. Churchill collected the details of a large number of cases in which there was great delay in the first stage of labour; he considered no case as lingering unless it had exceeded sixteen hours in the first stage, and his cases ran from sixteen hours to 176 hours; and of some 160 cases of which he collected the full notes—not selected cases, but consecutive cases—in which this occurred, there was not a single death, not a single case exhibited any evil consequence of delay in the first stage of labour. Dr. George Johnston himself has placed before us a large number of cases in which there was delay in the first stage, and in his report of the lying-in hospital under the mastership of Dr. Shepperton—a report of Dr. George Johnston and Dr. Sinclair—he gives us the details of ninety-one cases of delay in the first stage of labour; and I think in these cases there was not one death of the mother, nor a single evil consequence of delay. Contrast that with the result of the practice of using the forceps in the first stage, where 5·22 per cent. of deaths took place. There is another point that seems to me to illustrate very strongly the danger of this practice of using the forceps in the first stage of labour, and that is that the proportion of deaths bore a striking relation to the smallness of the os uteri when the instrument was applied. If you examine Dr. George Johnston's cases, the first thing that strikes one about them is that all the deaths were in the first labours; there were no deaths occurring in second labours—I am speaking now of the application of forceps during the first stage of labour. Altogether he used it in 169 cases; in 59 the os was dilated only two-fifths of its extent—that is to say, the os was dilated to a diameter of about an inch and a half; 44 of these cases were primiparous patients, and 15 of them were pluriparous. Of these 44, 6 died, being at the rate of rather more than 13 per cent. of the patients in which the forceps were used, the os being dilated two-fifths. If we exclude two cases of convulsions which were brought into the hospital in a comatose condition, out of 42 patients, 4 women died, being at the rate of 9·5 per cent., where the os was only dilated two-fifths. In his next class of cases the os was dilated three-fifths. There were 71 of these cases delivered; 53 were primiparous, and 18 pluriparous. Of the 53 primiparous patients 2 died, or 3·77 per cent. None of the pluriparous patients died. When the os was dilated to four-fifths, excluding a case of convulsions brought into the hospital in a comatose condition, none of the patients died. One of the primiparæ was brought in in a comatose condition, and she died, but certainly not as the result of the application of the forceps. I say this affords very strong evidence of the danger attending this operation; and the danger is exactly in proportion to the smallness of the os at the time the operation is performed. I think there can be no doubt that we are greatly indebted to Dr. Johnston for having shown us that we can deliver a patient with the forceps in the first stage of labour. Although the practice may have been adopted by others, he certainly is the man who has taught the profession that it can be done; and he has shown us that we have in certain cases this alternative—that, if the necessity arises, we can use the forceps in the first stage, and deliver the patient with, perhaps, much greater safety than we could leave her undelivered. But to follow out the practice, and adopt it as freely and generally as he has done, would, I maintain, be attended with danger and risk to the patients. I came here, sir, for the purpose of hearing the observations of my London brethren, and I scarcely meant to occupy your time at all. We have discussed the subject very fully in Dublin, and we have, of course, taken different views; but I hope that the discussion to-night will be one that will put the matter in clear and full light, and will serve as some guide to the profession. But to let it go forward as our teaching that we may always use, or should always use, the forceps early in the first stage of labour, when there is no urgent demand for it except the time that has been passed, would, I think, be most unfortunate for society and for our profession.

Dr. THORBURN (of Manchester): As you were kind enough to call upon those who have come from some little distance to offer any observations upon this subject, I cannot avoid rising to thank Dr. Barnes for the very able manner in which he has placed it before us. I am very glad to find that he has not endeavoured, as some have endeavoured, to put before us in anything like a statistical or definite way the frequency with which the forceps should be used in the low operation. I believe it is utterly impossible by any amount of speaking or writing to do anything of the kind, and that the only principles upon which we can regulate our practice in this respect are to be guided by two rules. The first of these rules is never to use the forceps solely, or at all, I may say, for our own convenience—to save our own time; and the other rule is, when the parts are fairly dilated, never to allow an unfortunate woman to undergo a long period of tedious suffering which we can at once mitigate by an operation that is perfectly safe. Beyond this I do not think it is at all possible to go. I feel myself personally indebted to Dr. Barnes for having given the high weight of his authority to the practice of using the forceps in the high

operation, when the os uteri is not fully dilated; and I do not think Dr. Kidd has exactly opposed himself to what Dr. Barnes said on the subject. No doubt there must have been a considerable amount of nonsense, I should say, talked on this subject in Dublin—I do not mean by Dr. Kidd; but if it has been suggested by anyone that it should be at all a common practice to introduce the forceps into the uterus when the os uteri was only about an inch or so in diameter, and apparently for the mere purpose of dilating the os uteri, that is not what Dr. Barnes would recommend. It is perfectly within the knowledge of all of us that there are a good many cases where, owing to the pendulous abdomen, or to some slight disproportion, or to some cause which we cannot diagnose, the head remains for a very long time obstructed at the brim, unable, apparently, to descend; the os uteri, although moderately dilatable, is not widely dilated, and yet it is perfectly apparent that it is not the obstacle to delivery. In these cases, if you allow too long a time to elapse, you allow the head to be pressed against the higher portion of the uterus, against a segment higher up than the os uteri, and you incur very great danger in that way. I am quite satisfied that the forceps, under those circumstances, can be easily and safely introduced; that if once placed fairly upon the head, if a powerful pair of forceps be used, which always means a gentle pair—if these be used steadily and slowly, according to the emergencies of the case, not merely for the purpose of dilating the os uteri, but having to do so to complete the dilatation in the progress of the descent of the head, I believe, under these circumstances, the os can be as slowly and as safely dilated in this way as it may be even by Dr. Barnes's hydrostatic bags themselves. This, I think, is really more what Dr. Barnes wished to impress upon us. It is a practice which I should wish to see held before members of the profession. I wish, in doing so, he had spoken a little more firmly and strongly against the practice of using ergot as an alternative under these conditions—that is to say, when the os uteri is not dilated. Now, we are very much assisted in such an operation as this by the use of antiseptics and chloroform, and I think some little confusion has arisen in all our discussion upon operations of this kind in midwifery by forgetting that we sometimes endeavour to compare the dicta of men who either have not used or did not use chloroform, with the dicta of men who do or did use it. When we do that, we are perfectly certain to find a number of apparent contradictions which are not real, because I am quite sure it must be the experience of every one of us that, in the most serious forceps-operations, forceps with chloroform is a very different affair from forceps without it. I do not mean, of course, to endorse the wonderful dictum promulgated at one time by one of our teachers, that we should not use chloroform in order that we may know by the pain given when we are forcing the edge of the forceps through the vagina or the uterus; but, on the contrary, I believe there are many cases suitable for forceps if chloroform be given which are not and could not be suitable for it if chloroform be not given, on account of the comparative undilatability of the parts. There is just one other point which has struck me as of some importance, and that I do not remember ever to have noticed among medical men, though I once mentioned it to a society of our own at Manchester, which, I believe, throws some light upon the use of the long forceps operation—that is to say, the use of the forceps at the brim, independent of the presence of the os. The British forceps, as Dr. Barnes in his work has so forcibly pointed out, is probably quite as effectual as those used in France, or largely in America, as a tractor, and also as a lever; but undoubtedly the British forceps, as we have them in the best of them, are decidedly inferior to the French forceps as compressors. It is chiefly in the more serious forceps operations that we do want and must have the compressing power of the forceps; and I should like to point out a very simple way indeed in which we can increase almost indefinitely the compressive power of ordinary English forceps under such circumstances. If you apply the blades of the forceps to the head and grasp the handles—tie them together if necessary; it is not a good practice as a rule—you get then as much compression as the instrument seems to be capable of producing, and if you allow for the spring of the instrument, it is not a very great deal. But supposing, instead of grasping the whole handles, you only fix together the extreme ends of the handles, either by a slip or a piece of tape, then if you will hold the forceps up and stick something small between the other ends of the handles, so as to separate them as you force these two handles separate, you bring the blades of the instrument together, and in this way—by a little thickness not much greater than the thickness of this pencil introduced between the upper ends while the lower ends are tied together—you bring the two blades of the forceps much closer together. I have produced this result in this way: drilling a hole through the one handle and fitting a screw to it. It is, of course, only used in comparatively rare cases. Meeting, as I have done, with cases of the brim, where I had almost entirely been foiled by the use of the forceps in the ordinary way, I have fastened together the lower ends of the handles, and with this screw have separated very slowly the upper ends of the handles, and in this way brought the handles together to a very much more considerable extent. By this means on at least two occasions I have succeeded in delivering two living children, where I had otherwise given up all hopes of doing so. Although, of course, I use a considerable amount of pressure, I think this is more safe both for mother and child than the other alternative of turning in such case.

(To be continued.)

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were formally admitted Fellows of the College on May 9:—

Bagshawe, Frederick, M.D. Camb., St. Leonards.
Edis, Arthur Wellesley, M.D. Lond, 22, Wimpole-street, W.
Gowers, William Richard, M.D. Lond., 6C, Queen Anne-street, W.
Greenfield, William Smith, M.D. Lond., 15, Palace-road, Lambeth, S.E.
Irvine, James Pearson, M.D. Lond., 3, Mansfield-street, W.
Mackenzie, Stephen, M.D. Aber., 26, Finsbury-square, E.C.
Squire, William, M.D. St. And., 6, Orchard-street, W.
Stevens, Henry, M.D. Lond., Sutton, Surrey.
Taylor, Frederic, M.D. Lond., 15, St. Thomas-street, S.E.
Williams, John, M.D. Lond., 28, Harley-street, W.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH: DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examination during the April and May sittings of the examiners:—

Addison, Charles James, Weymouth.
Aitken, William Kyd, Edinburgh.
Birkett, Henry John, Whitehaven.
Blythe, Joseph Charles, Newtown.
Burton, John Adolphus, Madras.
Chambers, William Hamilton, Manchester.
Clark, Robert, Settle.
Clarke, James Ferguson Wyllie, Aberfeldy.
Connolly, William Patrick, County Limerick
Cooke, Luther, Sutton-in Ashfield.
Dickie, John Thomas, Edinburgh.
Dixey, Arthur Crosier, London.
Ferguson, James Maclauchlan, Bolton.
Griffiths, Evan, Cardiganshire.
Harrington, Hastings Norman Victor, Howrah.
Harrison, George, Chester.
Horder, Edward George, Kent.
Johnstone, James, Dumfriesshire.
Jones, William, Aberystwith.
Knight, Edward, London.
Longbottom, William, Leeds.
Main, David Duncan, Ayrshire.
Naylor, Arthur George Eyre, Calcutta.
Oakley, Harry Callander, Hornsey.
Porter, David Leslie, Londonderry.
Ramsay, Edward Connel Adair, Fleetwood.
Robinson, Frederick, Dewsbury.
Smailes, Francis William, Pickering.
Smyth, James Camac, County Antrim.
Strong, Robert Gravenor, Adelaide.
Ward, Herbert, Sheffield.
Whitlock, Alfred William Fox, Scarborough.

The following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Allinson, Thomas Richard, Hulme, Manchester.
Aris, Jan Adolph, Holland.
Arlidge, John Frederick, London.
Barr, James, Manchester.
Boyd, Perceval Crawford, Hobart Town.
Brodie, Arthur James, London.
Clements, Henry Joseph, Dingle.
Daly, Frederick Herbert, Dublin.
Elliot, John Peter, Bellingham.
Ellis, George William, Shropshire.
Gibson, Andrew Murray, Perth, Canada.
Gilbert, Sydney, Wincanton.
Hague, James Thompson, Lancashire.
Hardy, John George, Durham.
Harris, James Crofts, Cork.

Holt, George. Hull.
Hooker, Joseph Stenson, Bedfordshire.
Horsford, Benjamin William, Cork.
Horton, Thomas Robert, Melbourne.
Lyons, Harry Sydenham, Australia.
Mackenzie, Allan Grant, Strathspey.
MacNeece, Thomas Frederick, County Tyrone.
Monty, Jules Versanges, Mauritius.
Mulvany, Peter, County Meath.
Notley, William John, Shipdham.
Oakes, Arthur William, New South Wales.
Read, Edward Inskip, Stoke, Devonport.
Rice, Henry James, Mountmellick.
Smith, Edward Last, Tipperary.
Stewart, Charles Alfred, Hobart Town.
Ward, George Smith, Radstone, Brackley.
Wiley, Thomas Ormsby, Dublin.
Williams, Owen, Anglesey.
Williamson, Charles, Leith.
Williamson, Nicholas, New York.
Wilson, Robert, Buckie.
Wraith, Oswald Samuel, Lancashire.
Wray, James Stuart, County Tyrone.
Wylie, Henry, Kincardine-on-Forth.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, May 5, 6, 7, and 8, the following were the successful candidates:—

For the licence to practise Medicine—

Bates, William Richard.
Beamish, Samuel Fitz Richard.
Croakery, Wallace Brown.
Fitz Gerald, William Edward.
Heffernan, William Francis.
Nichol, John Crawball.
Parke, Thomas Heazle.
Waterston, Jane Elizabeth.

For the licence to practise Midwifery—

Beamish, Samuel Fitz Richard.
Croakery, Wallace Brown.
Fitz Gerald, William Edward.
McCreery, Benjamin Thomas.
Parke, Thomas Heazle.
Waterston, Jane Elizabeth.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 9th inst., and when eligible will be admitted to the pass examination, viz.:—

Awdry, Walter R., student of the Birmingham School.
Baylis, Henry M., of the Edinburgh School.
Boyd, James D., of the Glasgow School.
Davies, Ellis, of the Dublin School.
Dawson, George H., of the Leeds School.
Fuller, Herbert K., B.A. Cantab., of the Cambridge School.
Grace, George F., of the Bristol School.
Holdsworth, William, of the Leeds School.
Jones, John H., of the Glasgow School.
McVean, John D., of the Glasgow School.
Orchard, Alfred, of the Birmingham School.
Orton, Arthur, of the Birmingham School.
Summerhill, Thomas H., of the Birmingham School.
Thomas, John L., of the Birmingham School.

The following gentlemen passed on the 12th inst., viz.:—

Bewes, Edward A., student of St. Bartholomew's Hospital.
Burton, Charles F., of the Leeds School.
Coronado, Daniel E., of Columbia.
Fotherby, Henry A., of Guy's Hospital.
Garrard, Charles R. O., of Guy's Hospital.
Houman, Andrew, of Charing-cross Hospital.
Hubbard, Frederick E., of Guy's Hospital.
Jacob, Arthur H., of St. Bartholomew's Hospital.
Lipscomb, Arthur A., of the London Hospital.
Petherick, Wallace, of St. George's Hospital.
Row, Frederick E., of Guy's Hospital.
Stone, Francis A., of St. Mary's Hospital.
Waller, Theodore H., of St. Bartholomew's Hospital.
Whitwell, Alfred F., of St. Bartholomew's Hospital.
Wildey, Alexander G., of Guy's Hospital.

The following gentlemen passed on the 13th inst., viz.:—

Armstrong, Arthur J. M., student of St. Mary's Hospital.
Cleife, John, of St. George's Hospital.
Dixon, Henry C., of Guy's Hospital.
Griffin, Richard P., of St. Mary's Hospital.
Grün, Edward F., of the London Hospital.
Harvey, Frederick W., of the London Hospital.
Hassan, Syed, of the Bengal School.
Holcroft, Henry, of St. Bartholomew's Hospital.
Osborne, Harold R., of Guy's Hospital.
Payne, Frank C., of Guy's Hospital.
Pollard, George S., of Guy's Hospital.
Roche, Hallett L., of St. Mary's Hopital.
Rowell, Herbert E., of Guy's Hospital.

The following gentlemen passed on the 14th inst., viz.:—

Allan, Robert J., student of St. Bartholomew's Hospital.
Apthorp, East, of Guy's Hospital.
Campe, Charles F., of Guy's Hospital.
Davis, William H., of the Newcastle School.
Faraker, John J., of Guy's Hospital.
Hewer, J. Langton, of St. Bartholomew's Hospital.
Lawson, George L. L., of Guy's Hospital.
Long, John W. F., student of Guy's Hospital.
Macnamara, Hugh W., of the Westminster Hospital.
Neumann, Joseph, of the Berlin School.
Pegler, Louis W. H., of the Edinburgh School.
Trapp, John B., of Guy's Hospital.
Townsend, Stephen C., of St. Bartholomew's Hospital.
Walker, Charles R., of St. Bartholomew's Hospital.

The following gentlemen passed on the 15th inst., viz.:—

Bamford, Charles R., student of University College Hospital.
Berkett, Ernest, of St. Bartholomew's Hospital.
Capes, George H., of Guy's Hospital.
Clark, John S. F., of St. Mary's Hospital.
Currah, George I., of Guy's Hospital.
De Prenderville, Arthur, of St. Mary's Hospital.
Hind, Alfred J., of Guy's Hospital.
Hobden, Horace, of St. Bartholomew's Hospital.
Meyers, Herbert H., of St. Bartholomew's Hospital.
Nicholls, William J., of St. Bartholomew's Hospital.
O'Kane, Michael, of Guy's Hospital.
Potts, Walter A. B., of St. Mary's Hospital.
Rudd, Walter E., of Guy's Hospital.
Tew, James S., of University College Hospital.

With this the primary examinations were brought to a close: 46 candidates out of the 117 examined failed to acquit themselves to the satisfaction of the Board of Examiners, and were referred to their anatomical and physiological studies for three months, including 12 candidates who had an additional three months.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentleman passed his First Professional Examination during the April sittings of the Examiners:—

Griffiths, John, Wales.

The following gentlemen passed their Final Examination, and were admitted L.R.C.S. Edin.:—

Brachin, Henry Martyn, Pennsylvania.
Pope, Herbert F. Montagu, West Malling, Kent.
Powell, Henry Richard, South Sea Islands.
Scatliff, Arthur William, London.
Stiven, Edward W. Flemyng, Mooderabad, Bengal.
Underhill, Thomas Edgar, Staffordshire.
Williams, Edward, Mold.

The following gentlemen passed the necessary examinations, and obtained the diploma in Dental Surgery conferred by the College:—

Holland, Joseph, Norwich.
Ladmore, Edwin John, Hereford.
MacGregor Malcolm, New Scone.
Macleod, William Bowman, Edinburgh.
Matthew, Charles, Glasgow.
Taylor, James, Dewsbury.
Watson, George Wilkie, Glasgow.
Wilson, Andrew, Edinburgh.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 8:—

Brookes, Frederick William, 137, Westminster-bridge-road.
Cannock, Charles Watkyn, Blakeney, Gloucestershire.
Fairley, Samuel Bargona, Aston, Birmingham.
Wheeler, Albert, Glenthorne-road, Hammersmith.
Wickham, Walter, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

CRITCHETT, G. ANDERSON, M.A., M.R.C.S. Eng.—Ophthalmic Surgeon to the Royal Free Hospital.

HAYES, T. C., B.A., M.D., M.R.C.P. Lond.—Physician for Diseases of Women to the Royal Free Hospital.

MORRIS, MALCOLM—Joint-Lecturer on Diseases of the Skin at St. Mary's Hospital Medical School.

NAVAL, MILITARY, &c., APPOINTMENTS.

INDIA OFFICE.—Surgeon-Major Joseph Christian Corbyn, of the Bengal Army, and Surgeon-Major Charles Thomas Paske, of the Bengal Army, to be Deputy Surgeons-General.

ROYAL NAVAL ARTILLERY VOLUNTEERS, LONDON BRIGADE.—George Houlton Bishop to be Surgeon.

BIRTHS.

BOILEAU.—On May 5, at Overlade, Woolston, near Southampton, the wife of Surgeon-Major John Peter Boileau, M.D., F.R.C.S.I., of a daughter.

BRUCE.—On March 25, at Valparaiso, Chili, the wife of Peter Bruce, M.R.C.S. Eng., L.D.S., of a daughter.

FARR.—On May 11, at 116, Earl's Court-road, S.W., the wife of F. Arthur Farr, L.R.C.P. Edin., of a son.

ROGERS.—On May 6, the wife of W. H. Rogers, L.F.P.S., Glasg., 84, Rodney-place, S.E., prematurely of a son.

THOMSON.—On May 6, at Westgate-street, Peterborough, the wife of William Thomson, M.D., of a son.

TURNER.—On May 10, at 11, Grange-park, Ealing, W., the wife of James Smith Turner, M.R.C.S., of a daughter.

WHEELER.—On May 9, at 1, Portland-place, Clapton, the wife of Henry Wheeler, L.R.C.P. Lond., of a daughter.

MARRIAGES.

ALLCHIN—COOPER.—On May 10, at St. Alban-the-Martyr, Holborn, Fredk. Albert Allchin, sixth and youngest son of W. H. Allchin, M.B., late of Bayswater, to Emily, younger daughter of James Cooper, of Brixton.

FLUKER—THOMPSON.—On March 31, at Kensington, James, second surviving son of Robert Cafr Fluker, M.D., J.P., of Berwick-on-Tweed, to Annie Laidler, daughter of the late John Hodgson Thompson, of Gomersal, Yorkshire.

GLANVILLE—SALMON.—On May 7, at Clifton, John Glanville, M.R.C.S., eldest son of W. S. Glanville, of The Retreat, Burnham, Somerset, to Sarah, daughter of the late John Salmon, of Easton, near Wells.

GRANT—JOHNSTON.—On May 1, at Blarney Church, the Rev. George Bradshaw Grant, LL.B., to Janet Elizabeth, eldest daughter of J. W. Johnston, M.D., of 2, Park-view, Cork.

NEWCOMBE—ARNOLD.—On May 6, at Marylebone Church, Charles Fredk. Newcombe, M.D., of Windermere, to Marion, daughter of the late Richard Arnold, Surgeon-Major of the Madras Army.

ROUSE—BRADLEY.—On March 18, at Lyttelton, New Zealand, J. T. Rouse, L.S.A., J.P., of Lyttelton, to Susanna Peak, second daughter of the late William Orton Bradley, of Sunderland.

SUGDEN—FRANCIS.—On April 30, at Maryborough, Queensland, D'Arcy Sugden, M.R.C.S. Eng., to Amy Sarah, youngest daughter of T. H. Francis, of Finsbury-park, N.

DEATHS.

CUMMING, JAMES, M.D., F.R.C.P.E., elder son of William Cumming, M.D., at 18, Ainslie-place, Edinburgh, on May 9, aged 32.

GREEN, MARY SINGER, wife of J. Lardner Green, M.R.C.S., at Harcourt-terrace, Salisbury, on May 11.

HACHETT, FRANK ST. GEORGE, only surviving child of James Stephen Hachett, M.D., Berbice, British Guiana, at Newton Abbot, on May 7, aged 13.

HEELES, ROBERT, M.R.C.S. Eng., L.S.A., at Bedford Cottage, Carshalton, on May 11, aged 51.

MURRAY, THOMAS, M.D., M.R.C.S., at Ajmere, Rajpootana, on April 7.

PRICHARD, THOMAS, M.R.C.S., formerly of Llwydiarth Esgob, Anglesey, at Baschurch, Salop, on April 26, aged 68.

ROWLANDS, DANIEL GEORGE, M.R.C.S., second son of James Rowlands, F.R.C.S. Eng., of Carmarthen, at Lismore, N.S.W., on February 18, aged 34.

SMITH, FLORA FRANCES MATILDA, wife of George Stevenson Smith, L.R.C.S. Edin., Surgeon H.B.M. Consulate-General, Bangkok, Siam, on May 1, aged 35.

THOMAS, EDMUND FREDERICK, M.R.C.S., L.R.C.P., at Highfield, Shepperton, Middlesex, on May 5, aged 31.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BOROUGH OF PORTSMOUTH LUNATIC ASYLUM.—Medical Superintendent and Assistant Medical Officer. Candidates for the above appointments must send in their applications, with particulars of age, etc., accompanied by testimonials of recent date, to John Howard, Town Clerk, on or before May 26.

DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE.—Dental House-Surgeon. Applications to the Honorary Secretary, at the Hospital, on or before May 21.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon and Dispenser. Candidates must be unmarried, registered as legally qualified to practise medicine, and not more than fifty years of age. Qualifications and testimonials to the Secretary on or before May 23.

RADCLIFFE INFIRMARY, OXFORD.—Physician. Candidates must be legally qualified to practise as physicians in England. Applications, with testimonials, to the Secretary, on or before June 6.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. Candidates must be possessed of a medical or surgical qualification from one of the Examining Boards of the United Kingdom. Testimonials to the Secretary, on or before May 21.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bellingham Union.—Mr. D. Heagerty has resigned the Second District; area 99,922; population 1689; salary £20 per annum.

Berwick-upon-Tweed Union.—Mr. T. Davidson has resigned the Tweedmouth District; area 13,252; population 7037; salary £50 per annum.

Holborn Union.—Mr. Robert Bruce has resigned the Seventh District; salary £105 per annum.

Thorne Union.—The Thorne District is vacant; area 11,900; population 3871; salary £25 per annum.

APPOINTMENTS.

Bedminster Union.—Edmund T. Hale, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A., to the Fourth District.

Bramley Union.—Arthur Clark, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Gildersome District.

Herts.—Charles M. Tidy, M.B., reappointed as Analyst for the County for one year.

Leamington.—Alfred B. Hill, M.D., as Analyst for the Borough of Royal Leamington Spa.

Lichfield Union.—Henry P. Welchman, M.R.C.S. Eng., L.S.A., to the St. Mary District.

Ryde Union.—Otto Hehner, F.C.S., as Analyst for the Borough.

St. Pancras Parish.—Thomas Sayer, M.R.C.S., L.S.A., to the Fourth District.

Westbury-upon-Severn Union.—John S. Carleton, L.K.& Q.C.P. Ire., L.R.C.S. Ire., to the Second District.

PROFESSOR ROBERTS BARTHOLOW.—Dr. Roberts Bartholow has been elected to the chair of Materia Medica and Therapeutics in the Jefferson Medical College, Philadelphia, vacated by the death of Prof. Biddle. We believe that the selection is a very wise one.—*Philad. Med. Times*, March 29.

THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—A grand fancy bazaar, to which H.R.H. the Princess of Wales and other members of the Royal Family have given their patronage, will be held, in aid of the National Hospital for Consumption, Ventnor, on Tuesday, Wednesday, and Thursday next, May 20-22, at the Duke of Wellington's Riding School, Knightsbridge.

CATARACT CONSECUTIVE TO TYPHOID FEVER.—M. Trélat called the attention of his class to the case of a young robust peasant woman, twenty-five years of age, upon whom he was about to operate for double cataract producing complete blindness. Four years ago her sister, then also twenty-five years of age, was operated upon successfully for double cataract. In both these cases typhoid fever had occurred two years prior to their admission into the hospital, the defect of vision commencing in both a few months after the attack of typhoid.—*Gaz. des Hop.*, May 8.

ARTIFICIAL PREMATURE DELIVERY.—Prof. Depaul, in a recent clinical lecture, furnished the following statistical account of 46 cases of artificial premature delivery induced for contracted pelvis, which he has had at the Hopital des Cliniques. In 5 cases delivery was complicated by descent of the funis, in 3 by that of the arm, and in 1 by that of the foot. Of the 46 cases, 16 only terminated spontaneously, 15 required the forceps, in 7 turning was performed, and in 8 ovariotomy. Of the infants, 22 were born living, and 24 dead. Of the mothers, 31 only left the hospital recovered, and 11 died.—*Gaz. des Hop.*, February 27.

DEATH OF M. VICTOR MASSON.—The Paris medical journals record, with expressions of the greatest esteem and regret, the death, in his seventy-second year, of M. Victor Masson, who from 1838 to 1870, when he retired in favour of his son, held the highest place among medical publishers of the capital. His relations with the profession were always of the most liberal, friendly, and upright character; and he worked an entire reform in medical publishing by the care and elegance with which he brought out the works entrusted to him. Some of the most important books and journals which have recently issued from the Paris press have been published by him; and by the publication of the *Gazette Hebdomadaire* and the "Dictionnaire Encyclopédique des Sciences Médicales," he gave a great impulse to medical progress in France, in which he always felt the greatest concern quite apart from his mere trade interest in it.

COLLEGIATE PRIZES.—The Jacksonian Prize of the past year having just been presented to Mr. Priestley Smith, of Birmingham, it may be interesting to some of our readers, disposed to compete for the same—being members of the College—to know that the subject for the present year, to be awarded at Christmas next, is "The Disease of the Lymphatic System known as Hodgkin's Disease or Lymphadenoma." The subject of this prize for the ensuing year, 1880, is "The history, principles, practice, and results of Antiseptic Surgery." The Collegial Triennial Prize will also be awarded next Christmas; the subject is "The Anatomy and Physiology of the Third, Fourth, and Sixth Nerves, as illustrated by observation and experiment in health, and by reference to the effects of injury and disease." The money value of these prizes is represented in the former case by the amount of the dividend, about £12, received from the trust. The latter prize consists of the John Hunter Medal, executed in gold, to the value of fifty guineas, or, at the option of the successful author of the dissertation, of the said medal executed in bronze, with an honorarium of £50. No award of this prize has been made for twenty years, showing how little ambition there is amongst the members of the College, who alone can compete for it.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a special meeting of the College, held on Friday, May 9, it was proposed by Sir Dominic J. Corrigan, Bart., M.D., seconded by Professor Edward B. Sinclair, M.D., and unanimously resolved—"That the distinction of Honorary Fellowship of this College be conferred on Surgeon-Major James Henry Reynolds, A.M.D., in appreciation of his memorable and gallant services in the action at Rorke's Drift, Zululand, on the night of January 22, 1879." The election to the Honorary Fellowship then took place by ballot in accordance with the provisions of the new Supplemental Charter of the College, and Surgeon-Major Reynolds was unanimously elected an Honorary Fellow.

LIQUID FOOD.—Prof. H. Wood, speaking of the liquid food suitable for a case of tetanus upon which he was lecturing (*Philadelphia Med. Times*, March 15), observes—"The best diet is composed chiefly of milk and eggs, with the lean of flesh in some form. The best preparation of flesh is scraped raw meat, with milk and eggs. I cannot recommend this too highly, as one of the best and most nutritious articles we can use. It may be made by bruising meat in a mortar, but a better plan is as follows:—Lay a slice of the round of beef upon a firm board, and scrape it laboriously with a dull case-knife, until you get out of it all the red pulp it will yield. This, mixed with brandy and sugar, is not unpalatable to most persons. In using eggs it should never be forgotten that they are much more digestible raw than cooked; and that in all cases of systematic feeding they are to be given raw, diffused in milk, or partially cooked in mulled wine, or as an unbroken whole in ordinary wine."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Mr. F. W. Armitage.—Received with thanks.

Correction.—In the report of Mr. Hulke's rectal cases, in our last issue, in the thirty-sixth line of the first column of page 505, *for* "cutting the colon," *read* "reaching the colon."

A French Method of Flooring Hospitals, etc.—A method which is said to have obtained a wide application in France, in laying down floors, consists in putting down flooring, not as hitherto, on joists, but in embedding the boarding in asphalte. The new floors are used chiefly for ground storeys of hospitals, barracks, and other public buildings. The advantages of this flooring, which only requires an even bed on which to rest, are stated to be the following:—1. Damp from below, and its consequence rot, are prevented. 2. Floors may be cleaned quickly, and with the least amount of water, insuring rapid drying. 3. Vermin cannot accumulate in the joints. 4. Unhealthy exhalations from the soil cannot penetrate into living-rooms. Asphalte being impermeable to damp, rooms become perfectly healthy, even if they are not vaulted underneath. In buildings with several storeys, as in hospitals, the vitiated air of the lower rooms cannot ascend—an object which it has hitherto not been possible to attain by any other means. 5. The layer of asphalte will also prevent the spreading of fire from one floor to another, in case of a conflagration.

Teetotalers and Port Wine.—The *Liverpool Post* states that the idea that port wine is a strictly teetotal beverage seems to be held with curious firmness by the lower classes. This singular notion leads those who entertain it to consume port wine, or the decoction which goes by that name, with great freedom, and it consequently plays quite an important part in police-court cases. Recently a man who described himself as a "Bowton chap," and who figured as prosecutor in a charge of robbery against a woman, told Mr. Raffles that he was a teetotaler. He admitted, however, that he had had a glass of wine with the prisoner, and Mr. Raffles suggested that that was a luxury which was not altogether consistent with total abstinence principles. The prosecutor, however, avowed his firm conviction that "a glass of port wine would not do a chap any harm," and a gentleman in court said he believed that nearly all teetotalers took that beverage.

Pauper Lunatics.—A Parliamentary return shows that the cost of pauper lunatics in asylums and licensed houses in England and Wales for the past year was £911,426.

Retrogression.—The Huddersfield Chamber of Commerce, at a meeting held to discuss the operation and effect of the Factory Act of 1874, have resolved, *inter alia*, to memorialise the Government to bring in a Bill enabling sixty hours to be worked in the factories, as before the passing of the Act; and the meeting declared that those hours had not been found hurtful to the health of the workpeople in the manufactures of the district.

Urban and Rural Sanitary Works.—A new cemetery has been opened at Teddington. The whole plot of ground is nine acres, five and a half of which are laid out for present use.——The Hackney Board of Guardians have obtained the qualified approval of the Local Government Board to the erection of one of four proposed portions in connexion with the scheme of extending the workhouse infirmary accommodation by building on the Castle House estate.——A local Government Board inquiry has been held, on an application from the Dorking Rural Sanitary Authority, that a portion of the parish of Dorking, and all or some portion of Leatherhead, should be formed into a united district for carrying out a system of sewerage; but before further action is taken as to the proposed scheme, it has been suggested that the sewage of the intermediate village of Mickleham should be included, and the portion of Leatherhead to be comprised in the district should be defined.——The Corporation of Waterford have received and accepted a provisional order from the Local Government Board for Ireland, enabling the Corporation to borrow £15,000 to complete the new waterworks, on which £50,000 has already been expended.——Sewerage works are about to be carried out at Cirencester at an estimated cost of £13,375.——The Lowestoft Improvement Commissioners have resolved to take steps for providing means for protecting the sewage outlet on the beach.

A Bone Dealer's Business a Nuisance.—In the Queen's Bench Division, last week, an appeal against a conviction of a bone dealer for a nuisance under the Public Health Act, 1875, Section 112, in which the Oxford Local Board were the respondents, was heard. The section enacts that "any person who establishes within the district of an urban authority, without their consent in writing, any offensive trade—that is to say, the trade of a blood boiler, bone boiler, or fellmonger, or soap boiler, or tallow melter, or tripe boiler, or any other noxious or offensive trade, business, or manufacture—shall be liable to a penalty not exceeding £50 in respect to the establishment of it, and of 40s. for every day on which the offence is continued." In the present case the defendant had, without the consent of the Local Board, established at Oxford the business of a bone dealer, in which bones, some of them still green and subject to putrefaction, were collected and exposed for sale. The defence before the magistrates was that the business was not one of those specified, and that as nothing was done with the bones, and no manufacture or preparation was carried on, the business was not within the enactment. The magistrates, however, thought otherwise, and there being evidence that the smell was sometimes so offensive as to make people feel ill, they found, as a fact, that the business was a "noxious and offensive" business, within the meaning of the Act, and convicted the defendant, who now appealed. The judge said the case was *ejusdem generis* with the other cases mentioned in the enactment, all of which, it was to be observed, were cases of animal matter, as this was; and although, no doubt, all the cases mentioned in the clause were cases in which the animal matter was subjected to some process of manufacture or preparation, still if the collection, by exposure of animal matter, gave rise to such offensive or noxious smells as to affect the health of the inhabitants, or even seriously to affect the comfort and enjoyment of their houses, the case would be sufficiently within the scope and mischief of the enactment to justify a conviction under it, and as the magistrates had found that, as a fact, this was an offensive and noxious business, the conviction could not be disturbed. The conviction was therefore confirmed.

Mining Fatalities and Accidents.—Some startling facts have been disclosed before the House of Commons Committee appointed to inquire into the frequency of mining fatalities and accidents, by tables of statistics submitted to them. From one of these, which puts the deaths to the different coal-producing districts, and gives the number and proportion in each, it appears that in number the Northumbrian district has the fewest deaths from fire-damp, while Yorkshire presents the worst position. The obvious suggestion of such a difference is the inquiry whether the same vigilant care is bestowed in working, ventilating, and lighting the mines in the different districts.

Noteworthy.—The Farm Committee of the Reading Union have presented a report to the Guardians, showing that by keeping cows of their own for the supply of the Workhouse they obtain an abundant yield of pure milk, at an average cost throughout the year of eightpence per gallon, which it is believed could be easily reduced to sixpence, thus saving over £100 per annum as compared with the contract system.

BOOKS AND PAMPHLETS RECEIVED—

Rickman J. Godlee, M.S., F.R.C.S., an Atlas of Human Anatomy, part ix.—D. Lloyd Roberts, M.D., F.R.C.P. Lond., The Student's Guide to the Practice of Midwifery—George P. Field, M.R.C.S., Diseases of the Ear, second edition.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Journal of Anatomy and Physiology—Practitioner—Students' Journal and Hospital Gazette—Guy's Hospital Gazette—Boston Journal of Chemistry—Canadian Journal of Medical Science—Nordiskt Medicinskt Arkiv—Boston Journal of Chemistry—Dublin Journal of Medical Science—Medicinal-Gesetzgebung—El Siglo Medico.

COMMUNICATIONS have been received from—

Dr. J. Pearson Irvine, London; Mr. John Chatto, London; Mr. D. Colquhoun, London; Mr. E. L. Hussey, Oxford; Mr. Charles Higgens, London; Dr. James Arnott, London; Mr. B. R. Wheatley, London; Dr. F. Churchill, London; Mr. J. W. Hulke, London; Dr. W. Howship Dickinson, London; Mr. T. M. Stone, London; Dr. E. M. Skerritt, Bristol; The Secretary of the Liverpool Medical Institution; Dr. H. Tibbits, London; Messrs. J. Richardson and Co., Leicester; Dr. W. Arding, Wallingford; The Registrar of the Royal College of Physicians, London; Mr. Malcolm Morris, London; The Registrar of Apothecaries' Hall, London; Mr. P. P. Henry Browning, London; Mr. J. T. W. Bacot, Seaton; Dr. Norman Chevers, London; Dr. Sparks, Cannes; Mr. W. Johnson Smith, Greenwich; Mr. J. Hamilton Craigie, London; The Secretary of the Royal Institution; Mr. C. Booth, London; The Registrar-General, Edinburgh; Messrs. Bowdler and Bickerdike, Church; Dr. John Williams, London; The Secretary of the Quekett Microscopical Society; The Secretary of the Society of Arts; Dr. F. Taylor, London; Dr. J. W. Moore, Dublin; Dr. J. M. Bruce, London.

APPOINTMENTS FOR THE WEEK.

May 17. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Mr. H. H. Statham, "On the Leading Styles of Architecture Historically and Æsthetically considered."

19. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Karl Hillebrand, "On the Intellectual Movement of Germany from the Middle of the Last to the Middle of the Present Century."

20. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Report by Morbid Growths Committee on Mr. Lister's Specimen of Encephaloid Cancer of the Scapula. Report of Committee on the Nature, Causes, and Prevention of the Infective Diseases known as Pyæmia, Septicæmia, and Purulent Infection. Dr. Thin—Specimens from the Horse: 1. Discrete Sebaceous Tumour; 2. Erythema Circumscriptum; 3. Eczema. Mr. Butlin—1. Growth in the Left Ventricle, with Embolism of Brachial and other Arteries; 2. Mollities Ossium, with Myeloid Tumours. Mr. Barker—Caries of Spine affecting Hip-Joint and Aorta. Mr. Mason—Foot with Nine Toes. Dr. Moore—Rupture of Aorta. Dr. Morison—Recto-Vesical Fistula. Mr. Lyell—Sections from Cases of Cancer of the Breast. Dr. Leared—1. Large Salivary Calculus; 2. Perforating Ulcer of the Stomach. The President—1. Molluscum Fibrosum (living specimen); 2. True Leprosy with Enlargement of Nerves (living specimen). Mr. M. Baker—Scrophuloderma. And other Specimens. Microscopic Specimens, illustrating the Report of the Committee on Pyæmia, etc., will be on view at 8 p.m.

Royal Institution, 3 p.m. Prof. J. R. Seeley, "Suggestions to Students and Readers of History."

21. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Association of Surgeons Practising Dental Surgery, 8½ p.m. Paper by Mr. Hunt (Yeovil).

22. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Dewar, "On Dissociation."

23. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Clinical Society, 8½ p.m. Dr. Coupland and Mr. Hulke, "A Case of Intussusception associated with Polypoid Tumour—Laparotomy—Death." Dr. Skerritt (of Bristol), "On the Simulation of Ascites in Cases of Intestinal Obstruction." Dr. Stephen Mackenzie, "Cases illustrating the Communicability and some other points connected with Molluscum Contagiosum." Dr. Lees, "Two Cases of Paralysis of the Serratus Magnus as a part of Infantile Paralysis." Mr. Brodhurst, "A Case of Genu Valgum, with some Remarks on Subcutaneous Osteotomy." Mr. George Brown, "Gas in the Peritoneal Cavity in Typhoid Fever relieved by Puncture"; Mr. Brown will also exhibit a Child in whom an Operation for Congenital Hypertrophy of the Tongue has been performed. Mr. Morrant Baker, "A Case of Amussat's Operation for Artificial Anus."

Quekett Microscopical Club (University College), 8 p.m. Mr. C. Spencer Rolfe, "On some Improvements in Microscopical Turn-Tables." Mr. J. W. Groves, "On Stained Sections of Animal Tissues, and how to prepare them."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Mr. W. H. Preece, "On Multiple Telegraphy, or Duplex and Quadruplex Telegraphy."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 10, 1879.

BIRTHS.

Births of Boys, 1308; Girls, 1217; Total, 2525.
Average of 10 corresponding years 1869-78, 2353·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	862	730	1592
Average of the ten years 1869-78	721·7	659·2	1381·9
Average corrected to increased population ...	...	...	1479
Deaths of people aged 80 and upwards ...	...	...	55

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	2	8	2	2	8	...	2	...	1
North ...	751729	...	15	3	...	13	...	2	...	4
Central ...	334369	...	7	3	1	6	...	...	..	...
East	639111	...	8	4	2	24	...	1	2	3
South	967692	3	21	6	6	18	1	9	...	2
Total	3254260	5	59	18	11	69	1	15	2	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·955 in.
Mean temperature	43·1°
Highest point of thermometer	65·2°
Lowest point of thermometer	30·0°
Mean dew-point temperature	38·6°
General direction of wind	N.N.E. & N.
Whole amount of rain in the week	0·18 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 10, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending May 10.	Deaths Registered during the week ending May 10.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620888	48·0	2520	1582	66·2	30·0	43·1	6·17	0·18	0·46
Brighton	105608	44·9	53	32	62·0	31·0	41·9	5·50	0·19	0·48
Portsmouth ...	131821	29·4	78	48	...	...	...	...	...	...
Norwich	85222	11·4	61	21	64·8	32·5	41·9	5·50	0·11	0·28
Plymouth	74293	53·3	46	31	63·0	34·5	46·1	7·84	0·12	0·30
Bristol	209947	47·2	159	77	68·0	27·7	44·0	6·67	0·15	0·38
Wolverhampton ...	75100	22·1	65	39	60·2	26·5	41·5	5·28	0·20	0·51
Birmingham ...	388884	46·3	306	159	...	...	...	...	...	...
Leicester	125622	39·3	88	50	65·8	26·2	42·1	5·62	0·11	0·28
Nottingham ...	169396	17·0	114	70	68·0	25·0	41·0	5·00	0·14	0·36
Liverpool	538335	103·3	377	230	56·0	35·8	43·3	6·28	0·28	0·71
Manchester ...	361819	84·3	253	172	...	...	...	...	...	...
Salford	177849	34·4	110	81	...	...	...	...	...	...
Oldham	111318	23·9	71	54	...	...	...	...	...	...
Bradford	191046	26·5	112	61	65·2	30·3	43·0	6·11	0·09	0·23
Leeds	311860	14·5	232	144	65·0	30·0	43·1	6·17	0·07	0·18
Sheffield	297138	15·1	183	134	64·0	27·0	41·6	5·34	0·11	0·28
Hull	146347	40·3	124	55	68·0	26·0	40·5	4·72	0·37	0·94
Sunderland ...	114575	41·4	105	52	71·0	33·0	43·8	6·56	0·24	0·61
Newcastle-on-Tyne	146948	27·4	98	83	...	...	...	...	...	...
Edinburgh	228075	53·9	152	79	60·7	31·8	43·1	6·17	0·11	0·28
Glasgow	578156	95·8	378	270	...	...	...	...	...	...
Dublin	314666	31·3	152	191	62·9	26·5	45·2	7·23	0·17	0·43
Total of 23 Towns in United Kingdom	8502896	38·6	5832	3708	71·0	25·0	42·8	6·00	0·17	0·43

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·96 in. The highest reading was 30·35 in. on Sunday morning, and the lowest 29·57 in. on Friday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SOME ORIGINAL RESEARCHES WITH

PROF. HUGHES' NEW INSTRUMENT FOR THE MEASUREMENT OF HEARING—THE AUDIOMETER.(a)

By BENJAMIN W. RICHARDSON, M.D., LL.D., F.R.S.

PROFESSOR HUGHES having done me the honour to show me first his newly invented instrument for the measurement of hearing, and having supplied me with an instrument for the purpose of testing the application of it for physiological and practical purposes, I have been enabled to make a considerable number of experiments, on which I venture to submit the following preliminary report:—

The instrument, as it has been used, is before the Society. It consists of two Leclanché's cells for the battery, a new and simple microphonic key connected with the cells and with two fixed primary coils, and a secondary or induction coil the terminals of which are attached to a telephone. The induction coil moves on a bar between the two fixed coils, and the bar is graduated into 200 parts, by which the readings of sound are taken. The graduated scale is divided into 20 centimetres, and each of these parts is subdivided into 10, so that the hearing may be tested from the maximum of 200 units to 0°—zero. The fixed coil on the right hand contains 6 metres of wire; the fixed coil on the left hand contains 100 metres. By this means a long scale from the left hand coil is produced. The secondary coil contains 100 metres of wire.

In using the instrument, one Leclanché's cell has been found sufficient, as a general rule, but two have been used in instances where the hearing of the person under test has been very defective. The Leclanché cell was selected by Professor Hughes as affording a reliable current for the purposes he had in view, and for standard comparisons. In using the instrument, the induction coil is moved along the scale from or towards the larger primary, as may be required, and the degrees or units of sound are read from the figures on the scale, the sound being made by the movement of the microphonic key between the battery and the primary coils.

The person whose hearing is being tested should sit in an easy position, and should not see the act of the observer in moving the microphonic key. For good observation, the room in which the experiment is made should be large, and all external causes of sound, such as the ticking of clocks, the vibrations of windows and doors, the moving of feet and the singing from gas-jets, should be silenced. The sitter should close the ear that is not applied to the telephone while he is listening for minute sounds, and should give his full and calm attention to the proceeding. Any excitement is like to lead to error when refined measurements are required.

Capacity of the Instrument for Observation.

The instrument may be considered to afford the most satisfactory means for testing the hearing power of all persons who can define a sound. The range of sound is sufficient at the maximum—200°—for everyone who is not absolutely deaf. 0°, or zero, is a point of positive silence from the instrument, or rather from the sound which it produces through the telephone.

Phenomena from Observations made on different Persons. Abrupt Loss of Sound.

One of the first facts learned with the audiometer is the suddenness with which the sound is lost to those who are listening. The sound is abruptly lost within a range of 2°; that is, within one-hundredth part of the entire scale. This is the case with those who are very deaf, as well as with those who hear readily—a fact originally noticed by Mr. Hughes, and which I have corroborated by fifty special observations on different persons presenting powers of hearing which varied from 200° to 140° as the extreme limit or capacity, to complete hearing through the whole scale, down to zero. In these persons, when the observation was taken under the strictest possible conditions for surrounding silence, the point between distinctness of sound and complete loss of it was not more than one-hundredth part of the scale.

Continuous Hearing in Line.

In testing the capacity of hearing, it is noticeable that the power to detect the diminishing sound is maintained best by continuing the reduction in trace or line while the attention is fixed. A sudden break may cause the sound to be lost to the listener long before his real incapacity to hear is reached. If, for instance, the sound be very faintly heard at 15°, and the induction coil be suddenly moved to 5°, the sound at 5° may be quite inaudible; but if the coil be slowly moved, unit by unit, from 15° to 5°, the sound at 5° may be distinctly heard. Mr. Maitland Tate, C.E., who noticed this point very markedly in his own case, when I was submitting him to test, compared this to what is observed by the sense of sight in making surveys. The eye will follow a line to an extreme point with comparative readiness, but if it break away from it the object seems to have disappeared.

Influence of Respiration on Hearing.

The effect of filling the chest and holding the breath makes a difference in listeners. The capacity for hearing is for a few seconds increased by holding the breath. Mr. Tate, who could hear with his right ear only down to 8° under ordinary breathing, could hear down to 5° when he held his breath. Another gentleman, who could hear only down to 100° under ordinary breathing, could hear to 80° when the breath was held with the chest full. Holding the breath with the chest not full fails to produce the same result.

Influence of Habitual Movements of the Body.

As a rule, the hearing of persons who are right-handed is most refined in the right ear; and as most persons are right-handed, it is found that the right ear is the best ear. This rule is, however, attended with many exceptions, since, for various reasons, some persons who use the right hand exclusively, practise for some particular purpose the use of the left ear, upon which that ear becomes more acute. Thus five physicians, who were right-handed but who had accustomed themselves to use the stethoscope with the left ear, could hear to zero on that side, but had lost from 4° to 5° on the right side. Four other persons who were similarly circumstanced were able at once to account for the fact by the habit they had acquired of listening to a public discourse or sermon from the left side. Another point of interest attaching to this observation is, that the practice of using one ear for special refinement of the sense seems for the time slightly to impair the other ear, although there may be no physical evidence of such impairment.

Influence of Automatic Adjustment or of Memory on Hearing.

Connected with the last-named fact is another—namely, that by this instrument the deaf are found to fail in capacity of hearing not only by reason of physical defect, but also by failure of memory of sounds. Thus, in a youth who had suffered serious defect of hearing for seven years owing to partial destruction of the tympanum, and who in the right ear could only detect sound at 107°, there was an inability to catch all the sounds lying between 130° and 107°, until he could remember what he had to listen for. By practising him then to detect the lowest sound that he was physically capable of receiving, I got him to detect this one sound more readily than those which came higher up. By further practice all the intervening sounds became audible with equal facility. These facts, which have been confirmed by another observation on a different person, seem to me to indicate that deafness from imperfection of the tympanum or other parts of the organ of hearing may be increased, beyond the mere physical failure, either from some lost power of automatic adjustment in the auditory apparatus, or from failure of receptive power in the cerebrum itself, so that the memory rendered imperfect is slow to assist the listener until by exercise of function its readiness is restored.

Influence of Atmospheric Pressure.

By use of the audiometer, the influence of atmospheric pressure on hearing is detectable. In my own case, when the barometer is at 30° I can hear on both sides close down to zero; but below 30° I fail by 2° on the left side to reach zero. In another person a similar failure extends to a loss of 4°.

(a) Paper read before the Royal Society on May 14, 1879.

Observations on Lower Animals.

I have tried to determine in some of the lower animals whether there is the same sense of hearing as in man. In most animals it is difficult to obtain sufficient quietude to enable the observer to gather from expression or movement of the animal the information sought for. In two dogs, one a terrier, the other a field-spaniel, I succeeded in making some good observations, and in them the range of hearing power seemed to be distinctly lower than it is in the human subject who has perfect hearing. In both these animals, which were healthy, and in the prime of life, the first indication of the detection of sound commenced at 10° on the scale. The detection was evidenced by the sudden expression of listening, by a slight change of position, and a slight dilatation of the pupils. This detection was clearly made on the instant, as if the sharp line of hearing were the same in them as it is in the higher animal.

PRACTICAL MEMORANDA.

1. The audiometer will, I think, be an essential in all physical examinations of men who are undergoing examination as to their fitness for special services requiring perfect hearing, such as soldiers, sentries, railway officials, and the like.

2. The instrument will be of great use to the physician in determining the value of hearing in those who are deaf, and in determining the relative values of the two organs of hearing. In one instance, already, I have been able by its means to detect in a person who was supposed to be equally deaf on both sides, that on one side the hearing is perfect close up to zero, while on the other side nine-tenths of the hearing is lost.

3. In other forms of diagnosis I have found the instrument useful. In a young person suffering from acute anæmia the hearing was so defective that on the right side it failed to detect sound at 18°, and on the left side at 15°. In ten days, during which, under a new regimen, great improvement took place in strength and general condition, the power of hearing had so much improved that the right ear was good down to 12°, and the left to 3°—an improvement of 6° on the right, and of 12° on the left side.

In another person who was subject to repeated vertigo, the giddiness occurring three or four times a day, the hearing was so defective that although the external ear on each side was clear and the tympanum natural, no sound could be heard below 30°. Under complete rest and attention to diet, the vertiginous attacks were in a few days removed altogether, and with that removal there was gain of hearing, on both sides equally, up to 5° on the audiometric scale.

4. The instrument may be used to differentiate between deafness through the external ear, and deafness from closure of the Eustachian tube—throat deafness. In my own case I fail to detect sound by the mouth at 170°, and this I find is a fair average in those who are healthy. It represents the comparative value of communication by sound through the Eustachian canal and the external ear.

5. The instrument promises to be very useful in detecting the effects in the body of those agents which quicken or excite the circulation, such as alcohol and other similar chemical substances. I have some observations on these points in reserve for a further report.

6. The instrument promises to be of great service in determining the value of artificial tympanums in instances of deafness due to imperfection or destruction of the natural tympanum. The cotton artificial tympanums introduced originally by the late Dr. Yearsley, and the membranous tympanums introduced by the late Mr. Toynbee, F.R.S., have proved of much service; and by means of the audiometer I have been able very accurately to test their respective merits, and to compare both with tympanums made of other material. The inquiry has led me to test different metals for this purpose, and to find in fine gold the substance so far for making the most useful and effective artificial drum. The Messrs. Ash, of Broad-street, have made for me various forms of gold drums, the best of which, perhaps, is a little cylinder which, with other forms, is placed before the Society. With one of these cylinders I was able to give to a young gentleman who had lost hearing on the right side up to 110°, from destruction of the tympanum, an instant gain down to 60°—a gain of 50° on the audiometric scale.

In this preliminary report I have omitted many subjects of interest, but I hope I have related enough to shew that the world of science in general, and the world of medicine in particular, is under a deep debt of gratitude to Professor Hughes for his simple and beautiful instrument, which I have christened the audimeter, or less correctly, but more euphoniously, the audiometer.

POSTSCRIPT.—THE SPHYGMOPHONE.

While experimenting with the audiometer the thought occurred to me of constructing an instrument that should translate the movements of the arterial pulse into telephonic sounds. In this I have succeeded, and the invention, to which I have given the name of the "Sphygmophone," I will, with the kind permission of the Editor, explain at length in the next number of the *Medical Times and Gazette*. The sphygmophone was described and demonstrated also at the meeting of the Royal Society on May 14, 1879.

ORIGINAL COMMUNICATIONS.

ON THE RECENT DISCUSSION ON CROUP AND DIPHTHERIA

AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

By ROBERT HUNTER SEMPLE, M.D., F.R.C.P.L.,
Physician to the Hospital for Diseases of the Throat and Chest, and to the Bloomsbury and Eastern Dispensaries, London.

THE discussion as to the relations existing between croup and diphtheria, at the Medical and Chirurgical Society, having now terminated, the period is not inappropriate for a retrospective glance at some of the leading features of the debate and of the subject from which the debate originated. It is the more necessary to recall to mind the question which was proposed because, in spite of the emphatic warning of the President, a few of the speakers deviated into the examination of matters which were irrelevant to the scope of the inquiry.

At the risk of incurring the charge of egotism, I must observe that in a paper read at the Society at the end of the year 1875, I asserted, at greater length and with more arguments and facts than I had adduced before, that laryngotracheal diphtheria was the same disease as membranous croup. Without my challenging an inquiry into the truth of that proposition, a Committee was moved for and appointed for the purpose. Its report has been received, read, and discussed, and the whole of the results are now before the profession. Dr. Wilks, in the course of some remarks which fell from him during the recent debate, said that at the end of the proceedings I should be "left alone in my glory"; but, whether the words were used in a complimentary or a sarcastic sense, I can scarcely admit their applicability, for I find that in my glory I am associated, *inter alios*, by comrades no less distinguished than Sir Thomas Watson, Sir William Jenner, Sir John Cormack, Dr. George Johnson, Dr. Morell Mackenzie, Dr. Bristowe, Dr. Greenfield, and Dr. Dickinson; besides others from whom I have received private testimony of adhesion to the same views, but who have not yet publicly expressed their opinions. I do not, of course, maintain that there is an absolute unanimity of sentiment in every particular relating to an extensive and complicated question between the above-named gentlemen and myself, but I state only the truth in asserting that there is a cordial agreement in all essential and cardinal points.

The question, then, actually proposed for discussion was whether there were two distinct diseases giving rise to a membranous exudation in the larynx and trachea, or whether this exudation was caused by one and the same disease. Notwithstanding the distinctness with which the question was laid down, it was in many quarters misunderstood, and distinctions were drawn between ordinary infantile laryngitis, in which there is no false membrane, and membranous disease of the larynx; whereas the question at issue was whether there were two membranous diseases of the larynx, different in their nature, and arising from two distinct causes. The misunderstanding became still more evident when some speakers in the debate founded their distinctions between membranous croup and diphtheria on

meteorological observations and on the reports of disease published by the Registrar-General. The prevalence of ordinary laryngitis in cold weather, for example, although a perfectly well established fact, has no bearing whatever on the present question, and the pathological value of the Registrar-General's Reports, although they are useful in many other respects, is absolutely nothing. Diseases of the throat, ending fatally, are entered in the register as "croup," or "diphtheria," according to the arbitrary opinion of the medical men in attendance, who are in the great majority of cases too busily engaged in active practice to keep accurate notes of the diagnosis of cases, or to make and record post-mortem examinations.

It has been repeatedly shown that the word "croup," in our existing medical handbooks and dictionaries, has no definite meaning at all, and that it is used to denote three, if not more, totally different diseases, viz., laryngo-tracheal diphtheria, infantile laryngitis, and laryngismus stridulus; and it is indeed popularly used to denote any disease accompanied with stridulous breathing, such as an aggravated cold, the pressure of an aneurism on the recurrent laryngeal nerve, the presence of a foreign body in the larynx, and other similar affections. It has the same kind of general meaning as the word "fever," which pathologists now divide into typhus, typhoid, febricula, relapsing, etc.; and it seems to me just as absurd to attempt to distinguish the features of a "croup" separately from the three or more maladies I have indicated, as it would be to maintain that there is a "fever" independent of and distinguishable from typhus, typhoid, febricula, and relapsing. Perhaps there are some pathologists who recommend this retrograde course of amalgamating a number of heterogeneous maladies under one head, and I can myself perfectly well remember the time when almost all chest diseases were included by some practitioners under the name of "asthma," almost all throat diseases under the name of "cynanche," and almost all cutaneous diseases under the general name of "eruptio."

If I do not mistake his meaning, Dr. Wilks, whose great abilities I hold in the highest respect, recommends and adopts some such retrograde course in reference to the diseases confounded together under the name of "croup." If a child has what are called "croupy symptoms," he considers it a matter of indifference whether the case be of a febrile or of a spasmodic character, or whether there exist a false membrane or not. I purposely omit adding that he does not inquire whether the case be specific or not, because he does not admit that diphtheria (the laryngo-tracheal form of which I consider the same as membranous croup) is specific at all, and he rather ridicules me for regarding it in that light. I think it is not too much to say that Dr. Wilks was not supported in this last view by any of the speakers in the late debate; and I doubt whether he will find any supporters in the profession at large. The word "specific" is undoubtedly a conventional one, but its meaning is pretty well understood; and, though sorry to disagree with Dr. Wilks, I maintain that diphtheria, from its contagious character, from its epidemic tendency, from its constant pathological features, and from its constitutional results, is a specific disease in the same sense as small-pox, scarlatina, measles, or typhoid.

With regard to the Report of the Committee on Membranous Croup and Diphtheria, I am at liberty, now that all the members of that Committee have spoken, or have had permission to speak, to make some remarks on its deliberations, and on the results which were attained. It has been stated, and with truth, that the conclusions were the result of a compromise, and such must necessarily be the case when a number of conscientious gentlemen are called upon to decide on a many-sided scientific question, on which each may, perhaps, have his own particular opinion. But I may state what I should have had some delicacy in stating before, and which I should not now express if the fact had not been revealed by Dr. Hilton Fagge himself, namely, that that distinguished physician was in a minority of one in the Committee, which consisted, including the chairman (Dr. Dickinson) and the secretary (Dr. Greenfield), of seven members, all of whom were indefatigable in their attendance, and scrupulous in weighing the evidence placed before them. In deference to Dr. Hilton Fagge, many expressions which would have pointed more distinctly to a recognition of the unity of laryngo-tracheal diphtheria and membranous croup, were softened down, and it was admitted —as I myself cheerfully admit—that, although the evidence is at present insufficient, facts may hereafter show that common pathogenic conditions—such as weather, chemical and mechanical agencies, etc.—are capable of causing the development of false membrane in the respiratory passages. All that I, and others who think with me, maintain is, that there is at present no evidence that such is the case, except in a very few and doubtful instances.

But with reference to Dr. Hilton Fagge's views, it was evident to me during the sittings of the Committee that his own facts did not bear out his conclusions; and I need only refer to the pages of the Report which contain his collection of cases, in confirmation of my opinion. Sir William Jenner, in his speech, pointed out the very weaknesses which had struck myself and others in examining Dr. Fagge's cases. These cases were not all actually attended by Dr. Fagge himself, but were for the most part recorded by the hospital clerks; and, as Sir William remarked, it would be somewhat extraordinary to find a series of clinical clerks at any hospital so capable of determining difficult points in pathology as to give to all of them claims to the possession of scientific accuracy; and, besides, as Sir William also pointed out, one at least of Dr. Fagge's cases was in direct contradiction to his conclusions.

Still, in deference to Dr. Fagge's strongly expressed views, the Report admitted that membranous affection of the larynx and trachea has in some cases followed exposure to cold; but, it is added, the Committee's "knowledge of the individual cases is not sufficient to exclude the possible intervention or co-existence of other causes. The majority of cases of croupal symptoms definitely traceable to cold appear to be of the nature of laryngeal catarrh"—(Report of Committee, page 32.) Again, the Report states in the same page that "common irritation seldom presents itself as the source of the disease (membranous disease of the larynx); and accidental injury is but very infrequently productive of it. But few cases of undoubted origin from exposure to cold are on record. On the other hand, in a very large number of cases infective or zymotic influence is to be traced."

In other words, although by myself the proposition would have been more definitely expressed, it is concluded that the old-fashioned "croup"—namely, the disease attended by the development of false membrane in the larynx and trachea —very seldom results (I believe never) from exposure to cold or from accidental injury; while, on the other hand, the membranous disease now known as membranous croup, or more correctly laryngo-tracheal diphtheria, arises in a very large number of cases (I believe all) from infective or zymotic influence.

It is only fair and right to observe that in the proceedings of the Committee, as in the course of the recent debate, the utmost courtesy prevailed between all parties in their demeanour towards each other; and with regard to the evidence received in writing from those to whom the questions of the Committee were addressed, it was all carefully considered, weighed, and compared, although, as has been previously remarked, very many of the answers were written under a misconception as to the real nature of the inquiry, and were consequently of very little value. My own opinion is that much of this matter might have been advantageously omitted, and the dimensions of the Report thereby considerably and advantageously curtailed.

REMARKS

ON THE OSSEOUS LESIONS OF HEREDITARY SYPHILIS.

Made at the Pathological Society.

BY

PROFESSOR PARROT, of Paris.

THE speaker, who had come over at the invitation of the President and Council of the Society, spoke in French. His address was most lucid, and was illustrated by a large number of typical specimens and drawings. He said that, while it was evident that hereditary syphilis attacked the skin and the osseous system much more frequently than the other tissues, he had at first imagined in regard to these two sites that the changes produced in the skeleton were constant, and therefore more frequent than any others in the

body. Having now, however, learned to recognise more readily the scars left by syphilides on the skin, he was disposed to admit that it was attacked almost as frequently as the skeleton; but he still believed that these osseous lesions were present at one time or other in an immense majority of cases. Confining his remarks to the osseous changes, he had found them so very various that it was only by the comparison of a large number of facts that a classification could be made, or the points of relationship be detected, between lesions apparently quite different. The best security against confusion in the study of these lesions was never to lose sight of the age of the patients, which was also the age of the disease. Seldom was a whole skeleton attacked; and certain bones were much more frequently affected than the others, notably the long bones of the limbs, and the maxillary bones, than those of the skull-cap, the ribs, the scapulæ, and the iliac bones. The vertebræ and the small bones of the hand and foot were more rarely attacked. He proposed dealing only with the bones of the limbs and of the skull, the lesions of which presented a characteristic seat and appearance, and were mainly of two kinds—the one an atrophy of preformed normal tissue, the other a development of new growths. First as to the *atrophic* lesions. These were of two forms—(*a*) *gelatiniform* and (*b*) *chondro-calcareous*. The *gelatiniform* variety was much the more frequent of the two, and was found equally on the limbs and skull. The parts attacked became of the appearance and consistency of an aqueous fruit jelly. At first there was an unusual tinting of the parts, varying from garnet to rose, and from a deep citron to a bright maize colour—these different shades being often met with on the same bone. The marrow was glistening and transparent, with a gradual diminution of medullary cells, which might wholly disappear, leaving only a fibro-vascular network and much waste. The invasion of the hard parts was marked by rapid decalcification, the spongy lamellæ being replaced by large spaces containing a tissue exactly similar to that remaining in the diseased medulla. In the *chondro-calcareous* variety, the very thin normal layer of cartilage encrusted by lime-salts, which is found between the osseous diaphyses and the cartilage, and is called by Ranvier the ossiform layer, becomes unusually thick and quite irregular in outline. Such an increase of chondro-calcareous tissue means an arrest of ossification. The part of cartilage adjacent to the diaphysis is not changed into bone, but remains as cartilage, hardened and modified, however, by the presence of lime-salts. The vessels disappear, and instead of the bone-corpuscles characteristic of osseous tissue there are found only cartilage-capsules more or less altered and filled with nuclear corpuscles. This modified tissue spreads from the cartilage towards the spongy part of the bone, from which it differs by its greater density, greater friability, and by its chalky-white colour. The gelatiniform and the chondro-calcareous forms of atrophy may co-exist in the same region. Both these atrophic changes render bones very friable, fracture often resulting from the slightest causes, especially when the two forms co-exist. Such fracture differs from that observed in the rachitic period of syphilis, especially in its seat. In the latter, that is about the middle of the bone; while in the case now under notice, fracture almost always occurs in the diaphysis at from a millimetre to a centimetre distant from the epiphysial cartilage, but never at the level between the diaphysis and the epiphysis. When the separation of the fragments is complete, or nearly so, the consequent irritation may set up sometimes ostitis, periostitis, or arthritis; and in any case they produce a peculiar inability to move the affected limbs, simulating paralysis of nervous origin, with which it has often been confounded. M. Parrot has accordingly named this condition "syphilitic pseudo-paralysis." There is little attendant pain, but in well-marked examples the arms hang down in a state of pronation, while the lower limbs are elongated, oscillating on the slightest shake of the patient. The muscles, however, respond completely to electrical excitation, which fact, and the additional one that genuine crepitation can sometimes be detected, suffice to establish the diagnosis. Nothing abnormal can be detected post-mortem in the spinal cord or nerves. It was needless to point out that a mercurial course was the proper mode of treatment, and that an electrical one was directly contra-indicated. These atrophic changes, though most commonly seen in the long limb-bones, were also found in the skull. Sometimes, though rarely, the gelatiniform atrophy affected the cranial bones of very young infants, and, in the speaker's opinion, might probably commence in intra-uterine life. It always began just under the periosteum, reaching the dura mater so very rarely, that he had seen that result only once, a partial meningitis being set up at the perforation. The lesion might be circumscribed or diffuse, and the diagnosis could not be made out during life. The affected bones, when dried, had the appearance of worm-eaten wood or cloth. The second kind of osseous change from hereditary syphilis was characterised by the development of new products on the surface of the bones, causing various, yet typical, deformities. This kind of lesion, which was much more frequent than the atrophic changes, he called *osteophytic*, and of it also there were two chief varieties—(*a*) the *osteoid* variety, in which the tissue presented a bony hardness, and (*b*) the *rachitic* variety, in which the tissue was fibroid and spongy. Other accessory morbid changes might also be found in the bones, but they were the results of these principal alterations, not independent syphilitic lesions. The osteophytes, whether of the osteoid or of the rachitic variety, were tolerably uniform in respect of distribution of the limb-bones. The humerus and tibia were by far most frequently affected; next came the femur and ulna. In the case of the humerus it was invariably the lower part of the diaphysis that was attacked, the greatest growth always being nearest the cartilage, where it sometimes quite ensheathed the diaphysis. The osteophytic growth was always thickest in the posterior aspect, and might be as thick as even three or four millimetres. On the tibia the favourite site was the inner aspect, the growth being thickest at the middle of this surface. In the femur, the antero-external aspect; in the scapulæ, the supra- and infra-spinous fossæ; and in the iliac bones the external aspects—were the favourite sites. In regard to the other long bones, the only general statement that could be made was that the osteophytic growth was usually most marked in the end of the diaphysis that grows least rapidly, as the upper end of the ulna and radius. On the skull osteophytic growths never occurred along with gelatiniform atrophy, and were developed only in older children. They are found almost exclusively at the periphery of the frontal and parietal bones, beginning always at two or all of the four corners round the anterior fontanelle. In a few exceptional cases they start from the temporals, and they very rarely affect the frontal or parietal eminences, the orbital arches, or the occipital bone. They begin as lenticular red or violet elevations, rising quite abruptly from the outer table, and are usually spongy, but sometimes hard, and generally rough on the surface; they gradually extend to the neighbouring parts, in very marked cases ultimately affecting the whole of the cranial vault. The sutures may be obliterated, leading to changes in the shape and dimensions of the cranial cavity; and if this occur very early there may be interference with encephalic development, so that idiocy may result. The thickness of these cranial osteophytes may be as much as two or even three centimetres. When the syphilitic influence is exhausted the new tissue becomes denser from shrinking and from the fresh deposition of calcareous salts. The two or four osteophytic swellings at the corners of the anterior fontanelle are the most common, and are easily detected during life, producing a very characteristic appearance, which M. Parrot has called the *natiform* deformity. They are of themselves certain proof of congenital syphilis. The osteophytic growths can also be recognised, though less readily than in the skull, in the long bones during life, notably in the humerus and tibia, in which their seat is so constant and characteristic. The osteoid variety of osteophyte may occur at all ages, while the rachitic variety is hardly ever met with in a child under six months. The osteoid growths are formed of interlaced trabeculæ arranged at right angles to the surface of the diaphysis, and infiltrated like it with calcareous salts, and surrounded by medulla. They seem to differ from normal bone only in having a yellowish or pinkish colour, and in their being much more easily broken or cut. But the microscope shows that they have not the regular bone structure; no bone-corpuscles (osteoblasts) can be found regularly arranged round Haversian canals, but there are seen, instead, triangular or polygonal corpuscles, anastomosing by processes with the periosteum whence they spring, and with the analogous corpuscles in the medullary spaces. The rachitic or

spongy osteophyte is formed of a tissue essentially fibroid in structure, only slightly vascular and containing but little marrow, and of a pearly-white or slightly yellowish colour. The periosteum is found to be almost always greatly thickened over the osteophytic growth, and adheres to it the more firmly the more the growth differs in structure from true bone. Besides these two principal forms of osteophytes there are many intermediate varieties, presenting several layers of different structure and consistence, but always so disposed that the hardest layers are deepest, and the most spongy lying just beneath the periosteum, the latter evidently resulting from changes in the former, as all intermediate grades can be observed. When the osteoid variety attacks long bones, there is only some thickening of the chondro-calcareous layer; but in proportion as the change tends to the rachitic or spongy variety, this layer increases, and in marked cases becomes filled with outgrowths of the diaphysial spongioid tissue. There thus result the large swellings found at the articular ends of the bones, which are among the best signs of the rachitic form of hereditary syphilis. As might be expected, from all these different lesions there result numerous deformities of the limbs, of the thorax, and of the vertebral column. So long as the syphilitic poison is active, the osteophytes increase at the periphery, while at the same time they are often replaced by medulla at the level of the preformed parts. When healthy nutrition is being established they tend to take on the characters of true bone; and, in many instances, all traces of the lesions disappear, leaving only perhaps torsions, curvatures, fractures, and their consequences, or even osteophytes, especially those of the skull. Other changes than those already mentioned might readily be produced in the skull during the spongioid period of hereditary syphilis—viz., the conditions known as "plagiocephalus" and "cranio-tabes." Both conditions resulted from pressure on soft bone, and were primarily caused by habitual decubitus on the same side of the head. Both conditions were found apart from syphilitic rachitis; but the latter spongy state of the bones was certainly the most frequent predisposing cause. When both osteophytes and tabetic thinnings were met with in the same skull, as was not rare, the two lesions occupied quite opposite sites, the former occurring on the parts that are uppermost, the latter on the parts that are undermost, during decubitus. The knowledge of the osseous changes in hereditary syphilis had enabled M. Parrot to determine the antiquity and ubiquity of syphilis. That syphilis was prevalent in certain parts of South America before the European conquest, was proved by the very characteristic osteoid growths found on three skulls in the museum of the Société d'Anthropologie, brought from that continent and belonging to a period antecedent to the Spanish invasion. Two of these were the skulls of young children, and had been brought from Ecuador. The third was that of an adult, and had been found in Peru. Another fact resting on similar evidence was that syphilis existed at the time when the Dolmen population dwelt in the centre of France. Three fragments of skulls from young subjects of that population also presented very characteristic syphilitic osteophytes. M. Parrot, in conclusion, said that he had not spoken of the changes in the teeth in hereditary syphilis, because his researches were not yet sufficiently advanced on that subject. As far as they went they were confirmatory of the observations which had been made long ago by the President.

REMARKS

ON THE OCCURRENCE OF ORGANISMS UNDER ANTISEPTIC DRESSINGS.

Made at the Pathological Society.

BY

Mr. T. WATSON CHEYNE, of King's College Hospital.

THE author said that the first announcement of the occurrence of organisms in the discharge from wounds that had throughout been treated antiseptically had been made by Ranke, of Halle, five years ago, since which date there have been many similar statements by Demarquay, Fischer, and others; but in most of these instances there remained the objection either that the antiseptic system may not have been perfectly carried out, or that the method of investigation was at fault. Mr. Cheyne had availed himself of his opportunities when he became Mr. Lister's house-surgeon in 1876, to commence an inquiry into this subject, and his investigations had gone on up to the present time. He had been heartily seconded by Mr. Lister himself, who had placed all his cases unreservedly at disposal for examination. In a series of microscopical examinations, conducted daily for several months, Mr. Cheyne was never able to detect rod-shaped bacteria in the discharge from the antiseptically treated wounds. It is, however, very much more difficult to affirm or deny, by means of the microscope alone, the presence of micrococci in such a discharge, differing as it does from that of an ordinarily treated wound in containing but very few leucocytes, and these very granular when present, along with a very large quantity of other granular matter, probably degenerated pus cells or portions of broken-down fibrin from organising blood-clots. For the purpose of determining the presence or absence of micrococci, he therefore had recourse to cultivation, or "inoculation" experiments. The wound-discharge was transferred into fluids—cucumber infusion was chiefly used—highly nutritive to the various forms of organisms, the development of which in such a fluid renders it turbid. The greatest care was observed in conducting these experiments. The cultivating fluid was boiled for twenty minutes, kept for several days afterwards in an incubator at the heat of the human body, and decanted into small purified flasks under the carbolic spray. The discharge was transferred from the drainage-tube of a wound into the flasks by means of capillary tubes, which were purified in carbolic lotion, heated to dryness in the flame of a spirit-lamp, and rapidly made to connect the drainage-tube with the flask, the latter being opened and the whole process conducted under the carbolic spray. The "inoculated" fluid was then placed in an incubator, and kept at the temperature of the body; and, as the result of all his experiments, Mr. Cheyne had found that one of two things might happen—the "inoculated" fluid might either remain perfectly clear and unchanged for an indefinite time, proving that no organisms had been present in the wound-discharge; or it might become turbid in from thirty to fifty hours from the development of minute spherical bodies, occurring in pairs, short chains, or in groups—in fact, belonging to the division of Schizomycetes termed micrococci. The remarkable thing was that in both cases the wounds followed a perfectly aseptic course, whether the discharge was found to contain these micrococci or not. He had found, by comparison, that the fluid "inoculated" with the discharge from wounds treated not strictly antiseptically *always* developed these organisms, and very often bacteria also. Even in four cases originally treated antiseptically he had also found bacteria; but in each case there were distinct indications of their presence in a disagreeable smell, or in symptoms of local or constitutional disturbance. One of these cases was a psoas abscess in a weakly man, who soon showed signs of carbolic acid poisoning, and whose dressings were therefore made lighter and kept much longer unchanged than usual. The occurrence of bacteria in such a case was not to be wondered at—the dressings, though antiseptic, being inadequate. As to the nature of the micrococci found in the aseptic discharges, it had been maintained by Billroth, Haller, and Klebs that they were really bacteria altered by their surroundings, or in a different stage of development; but the speaker agreed with Cohn and Rindfleisch in opposing this view, and he had found much evidence that micrococci and bacteria are quite distinct organisms. He had never found a micrococcus become a bacterium, or *vice versâ*. Micrococci are not rod-shaped, but spherical, colourless or coloured cells, very small, with or without movement, growing from pairs into short chains or groups of larger or smaller size. There seemed to be several varieties, and those that have grown at a high temperature will not develope at a lower one. Micrococci do not disappear so quickly as bacteria in a fluid made strongly alkaline by carbonate of soda (Tiegel). Koch finds that micrococci stain with hæmatoxylin, while bacteria do not. The question would readily occur, How is it, if organisms are the causes of the evils arising from ordinary wounds, that the cases in which these micrococci are present in strictly antiseptic wounds do not seem to differ at all from those from which all organisms are absent? The answer to this was found in the fact that, when grown in cultivating fluids, as milk or infusion of cucumber, the micrococci produced but

little change in the fluid. There was only a slight increase of acidity, a very faintly sour odour, and hardly any alteration in taste; while fluids in which bacteria were growing became very acid and disagreeable to the taste, and usually very foul-smelling. Corresponding to this was the difference in the effects produced by the two kinds of organisms in wounds. The results of the introduction of the two different organisms into the circulation were also very distinct. Professor Gerald Yeo, at Mr. Cheyne's request, had made experiments by injecting cucumber infusion containing micrococci from the antiseptic wounds, and infusion containing bacteria, into the jugular vein of rabbits, with the unvarying result that the micrococci injections were perfectly harmless, while the bacteria injections were in every case followed by the death of the animal in a few days. Micrococci obtained from the air, from tap-water, and from unopened abscess, were similarly found to be innocuous. Thus the ordinary forms of micrococci would seem to be harmless, the products of their growth being, chemically, not irritating or poisonous. There may, however, be hurtful forms; and Koch has advanced strong evidence that pyæmia in the rabbit is due to the development of micrococci; but it is certain that if there are hurtful forms they are rare, and that the ordinary strict antiseptic precautions are sufficient to exclude them from wounds. In regard to the alleged causal connexion of micrococci and diphtheria (Oertel), erysipelas (Recklinghausen, Lukomsky, etc.), and other septic conditions, the speaker had failed to find the evidence sufficient to show that micrococci, rather than bacteria, were the cause of the diseases, or that the occurrence of the micrococci may not have been accidental. But the question remained, in regard to the antiseptic wounds, Why do micrococci, and not bacteria, gain access to them? How, indeed, can organisms of any kind be found in the discharge from aseptic cases? Three possible hypotheses may be put forward in answer to the latter question:—(1) That the organisms reach the wound through the body, being carried to it by the blood; (2) That they enter the wound through some loophole in the antiseptic dressing or by its faulty application; (3) That they arise in the wound by spontaneous generation. In considering the first hypothesis, another question had to be asked—Do organisms occur normally in the blood or tissues of a healthy living animal? Tiegel, Billroth, and Burdon-Sanderson had answered this question in the affirmative, but the speaker had not been satisfied with the evidence, regarding the method of investigation as not perfectly satisfactory. He himself had followed a totally different plan of testing this matter. Portions of the organs, including the heart with the contained blood, of an animal killed by a blow on the back of the neck, were speedily and carefully removed under the carbolic spray into beakers containing cucumber solution. The beakers had previously been found to be pure by the fluid remaining clear in them though kept for some time in an incubator. The flasks containing the organs were placed in the incubator, and he had always found negative results, though the fluid now in the flasks, being a combination of cucumber infusion and meat infusion was one of the most putrescible possible. He also tested these fluids at various times by "inoculating" from them other flasks containing pure cucumber solution, and always with the result that from the blood or tissues of the healthy animal no organisms were developed. That organisms would have developed if they had really been present was proved by their always appearing in the case of tissues removed from an animal into whom micrococci had been previously injected, and bacteria were found to be similarly reproduced. His conclusion that organisms were not present in the fluids or tissues of the healthy living body was, however, supported by previous strong evidence. Their absence from the blood had been proved by the experiments of Klebs, of Mr. Lister, and even of Dr. Sanderson himself. Lister and Pasteur had also shown that urine is sterile; and Lister had demonstrated the same of milk. Koch also denied the existence of organisms in the healthy tissues; and Chiene and Ewart had obtained results similar to the speaker's. But the case was different with animals in certain diseased conditions, as in acute inflammation from the injection of ammonia or in chronic phosphorus poisoning, in which organisms may be present in a state capable of development in the blood or tissues. These, in the healthy condition, have the power of destroying organisms, even when artificially introduced, up to a certain point. But if the resisting power of the animal be diminished in diseased states, organisms may pass into, and continue in, the blood without losing their vitality. The organisms usually so found are micrococci. In chronic abscesses, when opened, Mr. Cheyne had never found any organisms, whereas in "inoculations" from seven out of thirty-two cases of acute abscess he had found micrococci, but never bacteria. Billroth had found similar results, but he had detected micrococci in a larger proportion of acute abscesses, probably because the cases he had examined were more acute than those examined by Mr. Cheyne. Mr. Godlee and others had also found micrococci in the medullary canal in osteo-myelitis, bacteria having been detected only in the most severe cases, and even then but rarely. The micrococci were evidently accidental, not essential, concomitants of these states, as they were so often absent; moreover, when the aseptic discharge containing them is introduced into the circulation or inoculated on the cornea it produces no effect. It is only very rarely, then, that micrococci can have reached a wound through the body. As has been seen, this result took place only in conditions of considerable inflammatory disturbance or depression of the nutritive processes such as are seldom present after operations conducted antiseptically, which usually left the patient as able to resist their entrance as before the operation. Again, if they did enter the wound from the body, they would do so within the first few days, while the speaker had found that the wound-discharge generally remained sterile for at least a week after operation. Hence, as regards the first hypothesis the conclusion was that, while in some few cases the micrococci may enter the wound from the body, such would not seem to be the ordinary method. In considering the second hypothesis, that they entered through some loophole in the antiseptic dressings, he would divide the latter into the lotion, the spray, and the dressing proper. He had had ample proof that the lotion and spray, of the strength used by Mr. Lister, were unfailingly potent to destroy organisms. Indeed, the greater number of these experiments had been conducted in a small room, containing many pathological specimens and putrefying fluids and tissues, where the potency of the spray to destroy organisms floating about in the dust of the room was put to a very crucial test, with uniformly satisfactory results. If a loophole existed anywhere, therefore, it must be in the dressing itself. Now, it was found that the organisms were not present till a rather late period in the treatment, and generally when the dressings had been left on for several days, the discharge perhaps having reached the edge some hours before changing. They also sometimes occurred in cases where the dressings were changed with the usual frequency, but in these the discharge was very considerable. The behaviour of carbolic acid with all albuminous fluids (milk, serum, white of egg, etc.) explained these cases. With all such fluids it formed compounds which were but slightly antiseptic, so that they required much more of the acid than Pasteur's fluid did to render them perfectly sterile. In this way the carbolic acid was partly neutralised by the albuminous constituents of discharging wounds, and to this source of weakening had to be added the volatility of the acid in the dressings. Hence arose the necessity for large and frequently renewed dressings if the wound was to be kept perfectly free of organisms. But why is it that only micrococci, and never bacteria, are found in antiseptic wounds? He had at first thought that the explanation might be simply that micrococci can develope in fluids containing more carbolic acid than those in which bacteria can grow. This is not the exact explanation, however. Bacteria are found to develope (separately) more rapidly than micrococci in pure cucumber infusion; but if the two infusions be carbolised (1 in 500) the order of rapidity is reversed. So if the same flask of carbolised infusion be inoculated with a fluid containing both bacteria and micrococci, the latter will develope not only more quickly than, but often to the complete exclusion of, the former; while in a pure non-carbolised infusion bacteria would develope to the exclusion of the micrococci if both were introduced together. It might be here objected, that in the former case it was the bacteria that grew as micrococci; but some of the same bacteria, introduced at the same time into a non-carbolised flask with no micrococci, developed only as bacteria, and he had had daily proofs in working in a room whose air was charged with bacteria that the entrance of the latter into non-carbolised infusions was fatal to the development of micrococci. The largest proportion of carbolic acid in cucumber infusion

in which organisms develope is from 1 in 450 to 1 in 500. But the speaker had found that micrococci grown in such a solution could on transfer develope in a solution of the strength of 1 in 400; the latter progeny, if transferred in turn to a fresh carbolised solution of the strength of 1 in 350, would develope there; and these last again in a solution of the strength of 1 in 300, at which degree of strength the limit seemed to be reached. He had also observed that the micrococci were larger in proportion as the strength of carbolic acid in the solution was increased. The conclusions from these experiments would seem to be, that the wound-discharge, when profuse, or when it arrives at the edge of a dressing which has been kept on for some days, may not contain enough of carbolic acid to prevent the development of organisms; that micrococci, which are more abundant than bacteria in a ward atmosphere, find such a discharge a favourable medium for growth; and that as they develope they increase in vigour and size, and become more able to live in fluid containing a larger proportion of carbolic acid, and thus may, in time, penetrate the dressings, and ultimately reach the wound. The third hypothesis he had mentioned—that of the spontaneous generation of organisms—had been so disproved of late that it was almost needless to discuss it. His very method of investigation would have been impossible were such spontaneous generation at all frequent. And he had kept the same flasks of cucumber infusion and of milk for months, until they had dried up, without the occurrence of organisms in any instance, except when previously introduced. Further, if micrococci arose spontaneously in wounds, why should not bacteria also do so? And if their development were dependent on external conditions, why should not micrococci appear in all the wounds in a ward at the same time? Or, if they be further dependent on some nutritive or other change in the patients, why do they not arise in all the wounds of a patient at the same time? He would sum up his general conclusions as follows:—That where the antiseptic treatment is properly carried out, organisms are either entirely absent, or, when present, belong to the class micrococci; while in wounds not treated antiseptically, organisms are always present, and generally consist of various forms of bacteria. That bacteria can live under antiseptic dressings when once admitted. That, while micrococci give but little indication of their presence, the entrance of bacteria is generally marked by smell or local and constitutional disturbance. That micrococci are quite distinct from bacteria, as shown by their mode of growth; by their relation to reagents and to carbolic acid; by their effects on fluids, and on the living body; and by the fact that, though under careful observation for eighteen months, under the most varied circumstances, they have in no instance been observed to be transformed, the one into the other. That all the ordinary forms of micrococci are harmless when introduced into the body, contrasting markedly in this respect with the ordinary forms of bacteria, which are more or less hurtful. That organisms do not occur in the healthy living blood or tissues, though they may be present in certain diseased states—as in acute inflammatory processes, or in great depression of vitality; but that they are not essential for the inflammatory process. That the explanation of their occurrence in antiseptically-dressed wounds is that the discharge flowing from underneath the antiseptic dressing may not be antiseptic enough to prevent the development of organisms. That the organisms which find such discharge the most suitable medium are micrococci, which by growing in it become stronger, and able to grow in fluids containing more carbolic acid. That this seems the ordinary mode of their entrance, though in some few cases they may possibly come from the blood. That the entrance of bacteria through the dressings is the result of carelessness, and their entrance from the body can happen only in the most grave disturbances of the vital functions, in such conditions as forbid all operations but those of the utmost necessity.

THE RUSSIAN GARGARISM.—Carbolic acid and tannic acid of each 15 parts, alcohol 60 parts, and distilled water 120 parts. A teaspoonful of this is added to half a glass of water in order to form the gargle. This solution is largely employed in Russia at the commencement of angina and in chronic inflammations of the throat.—*Union Méd.*, May 15.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

DORSET COUNTY HOSPITAL.

TWO CASES OF FRACTURE OF THE SKULL WITH DEPRESSION (ONE WITH LOSS OF BRAIN SUBSTANCE), IN WHICH RECOVERY TOOK PLACE WITHOUT COMPLICATION.

[Reported by Mr. HERBERT J. CAPON, late House-Surgeon.]

THE following cases appear to possess sufficient interest to render them worthy of being brought before the notice of the profession. The first is that of a boy, T. R., aged fourteen, who was admitted July 26, 1878, under the care of Mr. J. Tudor. While at work in a grocer's stores and attempting to close a trap-door, he fell through, a distance of some fourteen feet, and his head alighted on the metal leg of an upturned bottle-washer. This penetrated the skull at the anterior extremity of his right temporal ridge, making a wound in the skull as large as a shilling. The scalp wound was about an inch and a half long, and smart hæmorrhage was taking place from a branch of the temporal artery. He vomited freely immediately after the injury, also on his way to the hospital, and after admission. The vessel was twisted, and on examining the wound it presented the following characters:—It was plugged with blood-clot mixed with portions of brain-substance. The latter were collected, and examined microscopically, and consisted chiefly of cells of grey matter. One's fore-finger was easily inserted, and discovered a rugged edge of bone, with the soft brain-substance pulsating. The boy was conscious, but occasionally vomited. Pulse 56, feeble; respirations 20. Skin cold, pale, and clammy. The wound was simply washed clean, and a piece of wet lint applied; his head was shaved, and kept cool with ice-bag, and his room was darkened.

July 27.—Patient slept tolerably well during the night, moaning occasionally. Bowels not moved; four grains calomel administered. Right eye closed from œdema of lids; no further hæmorrhage; quite conscious; pupils equal; tongue coated. Temperature 99°; pulse 78; respirations 16. He expresses himself as "easy and hungry."

28th.—Wound looks healthy; a slight sanious discharge taking place; cerebral pulsation distinctly visible, also a small quantity of brain-tissue at base of wound. Slept well. Vomited after his tea yesterday. Bowels open twice. Tongue slightly furred. Pulse 78; temperature 99°; respirations 18. Ordered pot. bicarb. gr. xx., sp. ammon. aromat. ℥x., syr. aurant. ʒj., aq. ʒj., c. acid cit. gr. xv., ter. die.

29th.—Slept well last night. Bowels open slightly; eye less puffy, but blacker; tongue clean. Is perfectly conscious; takes nourishment well. Pulse 90; respirations 18; temperature 99°. Wound much the same as yesterday. No sickness or headache.

30th.—Passed a good night. Sickness and headache ceased. Bowels open; tongue slightly coated. Pulse 100; respirations 16; temperature 99°. Wound has some pus at base; pulsation visible.

31st.—Feels comfortable; bowels not open; slept well; taken food; no pain. Pulse 78, feeble; respirations 18; temperature 98°. Tongue clean. There is a slight prominence at lower part of wound, which pulsates. Rep. calomel. gr. iv.

August 1.—Bowels open twice; slept well. The swelling at base of wound seems larger, and continues to pulsate. No pain.

3rd.—Much the same. Wound suppurating.

5th.—Pulse 90; respirations 20; temperature 98·6°. The swelling at the base of the wound has somewhat diminished, and is covered with healthy pus.

7th.—The scalp is granulating healthily, and at base of wound is a small red mass, apparently granulations, about as large as a split pea. This pulsates. A considerable quantity of serous fluid flows from the wound; pulsation still visible.

9th.—No drawback. Takes his food (ordinary diet) well. Part of the external opening has closed, leaving a depression as large as the top of a lead pencil, in which pulsation is

visible. The red spot noticed a day or two back has been replaced by a greyish patch of pus and serum.

10th.—His right eye puffed to-day, probably owing to his having got up yesterday to have his bedstead repaired. There is some swelling at lower part of wound, and on pressure about half a drachm of thick pus was evacuated. He is anæmic. ℞. Ferri et ammon. cit. gr. vij., aquæ ʒ j., ter die.

11th.—The swelling noticed yesterday is less, but there is some tenderness over the part. In other respects he is doing well.

18th.—Progressing satisfactorily. There is a slight wound in which the probe detects a portion of dead bone. The pulsation has disappeared, but can be felt through the cicatrix. He was made an out-patient on August 29.

September 2.—The wound is entirely closed, and no pulsation is visible, but there still remains some thickening below the cicatrix.

October 2.—He feels quite well and has resumed work.

November 1.—His brother states the boy's memory does not seem so good since the accident; otherwise he is in perfect health.

Case 2.—A. W., aged eighteen, groom, was admitted into hospital September 18. While exercising a spirited horse, without a saddle, he was thrown, and the horse trod on the back of his head, inflicting a semilunar wound about two inches long, encircling the occipital protuberance. The occipital bone was also fractured and depressed to about one-eighth of an inch, the fracture corresponding with the scalp wound. There was but slight hæmorrhage, but the patient was rendered unconscious by the fall, and had no recollection of the horse treading on him. He had to be conveyed some two miles, during which time sensibility returned and he vomited. The sickness continued for eight or ten hours after admission, but his intellect remained clear.

September 19.—He passed a fair night; vomited several times. He is quite conscious. Complains of some pain in the seat of fracture. Tongue thickly coated; pupils dilated but equal. Pulse 60, full, regular; respirations 16; temperature 99·6°; bowels not moved. Ordered hydrarg. subchlor. gr. v. statim, and an effervescing mixture every four hours.

20th.—Sickness ceased. Slept well; bowels moved once after powder; tongue slightly furred; pulse 56, regular. Pupils somewhat dilated, but less so than yesterday; wound suppurating.

21st.—Pulse 54; respirations 16; bowels opened last night. Complains of a little pain at top of head. Sickness completely ceased. Temperature 98·6°. Cold water dressing to wound.

22nd.—Slept fairly well. Pulse 60; tongue still coated; head comfortable; pupils natural; bowels not open. Taking food well. Wound granulating healthily.

24th.—Tongue coated slightly. Slept fairly well. Wound looks healthy, but margins gape and expose the edge of the fractured part of the skull. No pain or sickness.

26th.—Pulse 60; respirations 16; temperature 99·4°. He is quite comfortable and wound doing well.

29th.—There is no drawback. He takes his food well.

October 4.—Complains of frontal headache this morning. Bowels open. Has slept well and taken food. The wound is closing.

9th.—Wound has nearly healed, but there is a prominent bunch of granulations to which nitrate of silver has been applied. Doing well.

17th.—Head almost healed. Caustic again applied to the projecting granulations.

24th.—The wound discharged freely, and at its bottom can be felt a rough exfoliating piece of bone. In every other respect the man is doing well; made an out-patient.

November 2.—A small portion of bone about the size of a threepenny-piece was removed.

15th.—He came to-day to show his head, which was, however, not completely closed, owing to several small portions of bone working out; but he has not experienced any drawback.

30th.—The wound has completely healed.

Remarks.—What the exact conditions were in the former case preventing fungus cerebri are not clear. On examination immediately after the accident no portion of depressed bone could be detected—such a piece as one might expect would be "stamped" in. Both cases seem to confirm the principle of waiting for symptoms before resorting to active surgical treatment, as trephining.

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Medical Times and Gazette.

SATURDAY, MAY 24, 1879.

THE OCCURRENCE OF ORGANISMS UNDER ANTISEPTIC DRESSINGS.

The communication made by Mr. Watson Cheyne to the Pathological Society of London, reported in our present issue, is one of the greatest interest alike to the practical surgeon and to the student of those lower forms of organic life that are connected with septic and putrefactive processes. The mere title of his paper, predicating as it did the actual occurrence of organisms under antiseptic dressings, was in itself sufficiently startling, more especially as it was known that the announcement was based upon the examination of the hospital cases whose dressings had been superintended by a surgeon no other than the great apostle of antiseptic surgery himself. Ranke, of Halle, and others had previously declared that organisms could be detected in the discharge from wounds that had been treated antiseptically; but the suspicion always remained that in such cases either the method of examination or the antiseptic treatment had been faulty. To settle this matter, Mr. Cheyne began a series of observations on becoming Mr. Lister's house-surgeon in 1876, and the results are now before us.

By a long-continued course of daily microscopical examinations, Mr. Cheyne satisfied himself that the rod-shaped bacteria, so uniformly present in septic discharges, are never present in the discharge from a wound that has remained aseptic; and in the few cases under Mr. Lister's care in which, for sufficient reasons, the antiseptic treatment had failed, with the natural results of foul-smelling discharge and local and constitutional disturbances, he had always detected bacteria; so that the supervention of septic or putrefactive processes in a wound, and the presence of bacteria, were always co-existent phenomena. This much was nothing new.

But in a certain proportion of cases, in which, to all appearance, the wound and wound-discharges, as well as the constitutional symptoms, betokened a perfectly aseptic condition

of the parts, Mr. Cheyne found unmistakable evidence of the presence of organisms. These were, however, never the rod-shaped bacteria, but small spherical bodies, occurring in pairs, short chains, or groups—organisms, in fact, belonging to the division of Schizomycetes called micrococci. The detection of these being much more difficult microscopically than that of bacteria in the discharge from an aseptic wound, Mr. Cheyne had recourse to the method of cultivation. He "inoculated," under very careful precautions, flasks containing cucumber infusion, with a little of the wound-discharge, and placed them in incubators kept at the heat of the body, when micrococci, if present, developed in from thirty to fifty hours to such a degree as to render the fluid turbid. Though the fluid often remained perfectly clear and sterile, turbidity from the development of these micrococci happened quite often enough to prove that in the case of many wounds that follow from first to last a perfectly aseptic course these organisms are present under the dressings. This was a result which, as we have said, had been previously announced, but was now established apparently beyond all doubt either as to the strictly aseptic character of the discharges tested, or to the perfect reliability of the method of experimentation. Mr. Lister, at all events, expressed himself as satisfied with the evidence, while declaring that the detection of organisms of any kind in an aseptic wound was what he had not expected or hoped for.

Now, it might be objected that these organisms were really bacteria in another form or stage of development. But from the different appearance of these two kinds of organisms, their different behaviour with reagents, the different effects produced by their artificial introduction into the bodies of animals, and from the fact that, though under observation during very long periods of time, they had never once been known to be transformed into one another, Mr. Cheyne confidently agreed with those observers who regard bacteria and micrococci as quite distinct. He considered it, however, very likely that there might be different varieties of micrococci, some of which might possibly be harmful, though it was quite clear that all the ordinary varieties were innocuous.

But the question arose, How do micrococci, and not bacteria, obtain access to aseptic wounds? And that question involves the larger one, How comes it that organisms of any kind can be present in discharges from aseptic cases? Three possible hypotheses might be advanced in explanation of the latter question—first, that the organisms reach the wound through the body itself, by the blood; second, that they enter through some flaw in the antiseptic dressing; or, third, that they arise by spontaneous generation. In regard to the first hypothesis, the question at once arose as to the possible existence of organisms in the blood or tissues of the healthy animal, which had been answered affirmatively by certain German investigators, whose observations had more recently been corroborated by Burdon-Sanderson. Mr. Cheyne, however, criticised the method of experimentation as defective in rigorousness, and he had himself conducted a series of experiments, adding to the measures hitherto adopted the security of antiseptic precautions during the transfer of the organs from the body into the experimental receptacles. The conclusion from this most careful investigation was that neither the blood nor tissues of a healthy animal contained any organisms capable of development, though it was undoubtedly true that in certain diseased conditions, when the resisting power of the animal tissues was lowered, organisms had been found. Even these, however, were almost always micrococci, and not bacteria, and their presence seemed an accidental, and not an essential, concomitant of the diseased condition. It was therefore evident that it was only in very rare cases that micrococci could reach aseptic wounds through the body, especially when it was remembered that the antiseptic treatment prevented those low and febrile conditions of the system in which they did occur.

In regard to the possibility of a loophole in the antiseptic dressings, allowing the entrance of organisms, Mr. Cheyne had very good evidence that neither the lotion nor the spray could be at fault. There remained, however, the dressing material itself, and it was here where the loophole existed. The micrococci had never been found in cases until some days after operation, and generally when either the dressings had been left on for some hours after the appearance of the discharge at their edges, or where the discharge itself was considerable. Now, it is a fact that, with all albuminous fluids, as milk, serum, etc., carbolic acid forms compounds which are but slightly antiseptic. The formation of such compounds with the albuminous constituents of the wound-discharge, together with the volatility of the acid, would sufficiently account for the fact that the dressings might soon become too slightly antiseptic to prevent the entrance of micrococci, when they were either too small or too seldom renewed.

But why should micrococci be able to enter, when bacteria were effectually excluded? The ready answer to this would be, that the dressings might be sufficiently antiseptic for the latter, though not equal to excluding the former; that is, that it was simply a question of the strength of the carbolic acid in the dressings. But this is not the whole truth. Mr. Cheyne found that bacteria are killed in a weaker solution of carbolic acid than is necessary for the destruction of micrococci; but he found this additional remarkable fact, that micrococci grown in a weak carbolised solution—say 1 in 500—can, on transfer, develope in a slightly stronger solution; the last progeny will again develope in a still stronger solution; and so on, until the strength of 1 in 300 is reached, which is usually fatal to all further growth. It would thus appear, therefore, that once they find a resting-place on a dressing allowed to become but slightly antiseptic, they may, in successive developments, be able to grow in increasingly carbolised media, and thus may ultimately penetrate the dressing and reach the wound.

Having advanced this satisfactory explanation, Mr. Cheyne dismissed the third hypothesis—that of the spontaneous generation of the organisms in the wounds—as being in itself hardly worthy of consideration. His whole procedure would have been vitiated at every stage if such a process of generation were at all frequent, and he instanced several strong objections arising out of his subject against the hypothesis.

The result, therefore, of this able and exhaustive inquiry, instead of detracting from the merits of antiseptic surgery, displays its excellence the more clearly and conclusively that some of the discoveries are such as Mr. Lister and his closest followers had regarded as impossible. And while they will derive satisfaction in finding that, when the antiseptic treatment is properly carried out, no organisms of any very hurtful character can reach the wound, there will be an increased desire among them for thoroughness and rigour in carrying out their system. For if it has been conclusively shown that, in the cases of Mr. Lister himself, micrococci often do penetrate the dressings, it is greatly to be feared that in the so-called antiseptic practice of many surgeons not merely innocuous organisms, but the true septic bacteria, easily find access to the wounds.

THE DEBATE ON CROUP AND DIPHTHERIA.

SELDOM has a scientific committee produced a better work than the Report upon the Relations of Membranous Croup and Diphtheria recently presented to the Royal Medical

and Chirurgical Society; and rarely has a document of the kind drawn out more instructive criticism. That Report does not bring us new knowledge, but it is, as Sir W. Jenner said, "an able reflex of prevalent opinion." It gives us a digest of many confusing and contradictory observations, and differing views. It represents all that we know at present, and it points out where we are ignorant.

It is seldom (we had almost said never) that discoveries are made by committees. A number of gentlemen, each eminent in his own way, but each with his own pursuits and line of thought, meeting together now and then round a table, are not likely to push together far into the unknown. Every man of original power has novel ideas, which those who do not understand him call crotchets: some of these crotchets may be erroneous, but some may be the germs of great discoveries. In a committee, the crotchets of each will be neutralised by his colleagues. That upon which they can all agree will be colourless, but safe.

New discoveries originate in the bold thought of individuals, and are verified by the patient labour which only individuals can give. A committee cannot be expected, for the sake of ascertaining the truth or error of some apparently wild speculation, to undertake a laborious research which may prove quite unprofitable. Sir W. Jenner pointed out the fallacy of the mode of investigation adopted by the Committee. *Tota ars medicinæ est in observationibus*, is a truism. The value of an alleged observation depends upon the competence of the person who makes it. One fact recorded by an observer of known accuracy, sound knowledge, and independent judgment, will go further towards clearing up a doubtful point than a hundred answers to the question received miscellaneously from men, some of much, some of little, acuteness and information, and many of whom (as appeared from the discussion to have been the case in this instance) attach different meanings to the terms of the inquiry.

We shall not further criticise the Report, nor shall we comment upon every speech in the debate. It will have been noticed that in the discussion the subject widened. The Committee only went into the relation between croup and diphtheria; but in the debate the pathological nature and place of the latter disease came under consideration. We shall only try to set forth what we take to be the outcome of the Report and debate—in other words, to summarise the present position of the question.

The Report was found fault with because it was said to embody no definite conclusion. If by a definite conclusion be meant one which should establish the correctness of one of two opposite opinions which have been held, then it is true that none has been come to. But to us it appears that the Committee have, as far as they could, given a clear and definite answer to the questions before them, although they have not given a complete answer. It is incomplete, because they kept to the evidence before them, and that evidence is incomplete.

They set themselves to answer two questions (Report, etc., page 3): first, "whether membranous laryngitis exists independently of the diphtheritic poison," and second, "whether, if so, there are any criteria by which it can be distinguished clinically or pathologically." Their answer to the first is, Yes; to the second, No. Put in the form of a positive affirmation, it amounts to this: that membranous laryngitis is not necessarily diphtheritic laryngitis, but the one cannot be distinguished from the other. In their own words, "there is strong evidence that all the cases do not fall under the head of contagious diphtheria, and that there are classes of cases distinct from that disease." So that if we accept the verdict of the Committee, not of course as final, but as representing the sum of our present knowledge, we must conclude that diphtheritic contagion is only one of the causes which may produce membranous laryngitis.

In the debate, however, the able speech of Mr. Jonathan Hutchinson enlarged the bounds of the controversy. The questions which the framers of the Report had before them appeared to assume that diphtheria is an epidemic disease, produced by a specific poison, and transmitted only by contagion. The truth of this doctrine was not discussed in the Report, although those who drew up that document were evidently aware that the evidence in its support is far from being complete; for they say (Report, etc., page 4), "it is at present an undecided question whether diphtheria is as distinct and definite a disease as scarlet fever or small-pox, and whether its poison is not readily generated under conditions of foul air and decomposing sewage. The position of diphtheria in this respect is even more undecided than that of enteric fever, and there is still stronger evidence that it may be originated *de novo*, and produce cases which are contagious, and give rise to epidemics." Mr. Hutchinson directly called this doctrine of specificity in question. "It was impossible," he argued, "that the Committee could arrive at a conclusion so long as they understood the term diphtheria as implying a specific febrile disease. It was a specialised local inflammation producing various constitutional effects, and not a disease depending on zymosis." Some subsequent speakers in different ways adduced arguments in support of Mr. Hutchinson's view. Dr. George Johnson narrated cases in which diphtheritic inflammation seemed to have been produced by sewage emanations. Dr. Matthews Duncan thought that there was no evidence that diphtheria was ever truly epidemic. Dr. Duncan's short speech would have been a more valuable contribution to the discussion had he explained the sense in which he used the word "epidemic." Dr. Wilks expressed himself as being much in accord with Mr. Hutchinson, and he pointed out that, if the view be accepted that diphtheria is not a specific disease, but one which may arise *de novo*, then the question is practically settled; there can, under such circumstances, be no essential differences between the various kinds of sore throat.

One important fact which the investigations of the Committee have brought out very clearly—although it was not one of the points which they had specially set themselves to investigate—is the great difference between membranous and non-membranous laryngitis: the former exceeding the latter in danger far more than was generally believed.

So far, then, the Committee support those who have been spoken of as the dualists: they find that membranous laryngitis may arise from other causes than diphtheritic contagion.

Then comes the question—can we distinguish between them? It would seem obviously of more importance to diagnose between membranous and non-membranous laryngitis, seeing that these affections differ so widely in their usual course But all the Committee can say is (Report, etc., page 29), "we cannot pretend to lay down the grounds of an absolute diagnosis, for the signs are the same in both kinds of disease. But the croup which ends in health may be sometimes distinguished by a more sudden onset, a more speedy attainment of a high degree of dyspnœa, and less dysphonia."

Between membranous laryngitis resulting from diphtheritic contagion, and the same affection from other causes, the Committee can point out no clinical distinction. Their words are (Report, etc., page 32), "it is not practicable to show an absolute line of demarcation (save what depends upon the position of the membrane) between the pharyngeal and laryngeal forms of the disease." But several speakers seemed to think that there are grounds for clinically, as well as pathologically, marking off the two groups of cases from one another. Dr. Pavy contrasted extreme cases—the most favourable, with the most severe—and set in relief the differences between them:

differences which he considered so great as to amount to non-identity. Dr. Andrew, admitting that no one criterion was to be relied on, put it that the scientific way was to multiply together the points of difference. Sir W. Jenner, in a speech of great force, repeated his opinion of 1875. He was inclined to think, but was not certain, that croup and diphtheria were identical. To those who thought otherwise, his answer might be condensed into "Show me the differences." He went through all the alleged criteria, and found none of them trustworthy. In his own words, he found no "firm footing to establish a distinction between the two diseases."

The following is what we take to be the outcome of the Report and the debate. First: It is not yet proved that diphtheria is a specific disease. Further knowledge is needed to settle, either in the affirmative or negative, this proposition. Second: It is proved that membranous laryngitis does exist independently of diphtheritic contagion. A large mass of evidence must be invalidated before the contrary of this can be shown. These are the pathological questions involved; we now come to the clinical ones. Third: There is a great difference between membranous and non-membranous laryngitis. In very young children it is not possible to distinguish clinically between the two; but this is not because the differences are insignificant, but because examination is so difficult. Fourth: There are no criteria by which it is possible clinically to distinguish between membranous laryngitis from diphtheritic infection and membranous laryngitis not so caused.

We have left till the last the suggestion of the Committee, "that the term *croup* be henceforth used wholly as a clinical definition implying laryngeal obstruction occurring with febrile symptoms in children. Thus croup may be membranous or non-membranous, due to diphtheria or not so." With this we cordially agree. It has a practical value. When different medical men give different names to the same ailment, the public are apt, naturally enough, to think that there is a mistake somewhere. When we have a group of symptoms which may arise from several causes, and the origin of which cannot always be made out, it is well to have a name which denotes the group of symptoms merely, without implying any theory about them, and which therefore all can agree about. It is also an obvious advantage to have a settled meaning for a word in common and popular use.

We think the Report of the Committee one of the most able contributions that has ever been made towards the elucidation of the subject. Its conclusions, we venture to predict, will not soon be overturned, and will not even be modified until large additions have been made to our knowledge. The criticism it received only set in relief its great merits: for it did not seem to us that any of those who differed from it succeeded in showing a good case against its conclusions.

PROSPECTS OF THE ARMY MEDICAL DEPARTMENT.

There is reason to fear that the "New Medical Warrant," when it does appear, will not prove attractive enough to draw the much-needed supply of highly educated students to fill the ranks of the wasted Army Medical Department. It will of course be based upon the recommendations of the War Office Committee, but those recommendations were rather weak and uncertain, and afforded but a poor foundation to build upon. They can hardly be said to tend to strengthen in any satisfactory degree the position of an army medical officer, or to inspire an *esprit de corps*. They dwelt too much on the possibility of diminishing the numbers of executive officers, and speculated too largely on the propriety of employing civil practitioners with troops, and were not calculated to encourage young men of military instincts to enter the department. A further distinction between combatant and non-combatant officers was practically shadowed forth by the substitution of "medica institutes" for the "regimental mess," and the isolation of the doctors afforded a gloomy prospect to those fond of social amusements tinged with the military colouring.

The recommendations of the Committee indeed pointed towards the annihilation of a Medical Department! The lessons learnt from their perusal are that one medical man is pretty much the same as another; that a doctor should be a doctor, and that he should be always doctoring; that if he wants a horse he should borrow or hire one, and that he has no right to want a horse at all unless he is called on in a hurry to see a patient. As for amusement, a doctor can always amuse himself with his microscope at his own peculiar medical institute! No doubt the Committee dwelt upon some improvements which would be necessary in the Army Medical Department of the future, as, for instance, an increase of pay and a further share of honours; but still an impression is left that if the Committee could only have seen their way to a sufficient supply of ready money, they would have abolished Army Doctors, and have trusted to money to secure the services of medical men when troops in quarters or were ordered on service. But from all we can learn, the disconnexion of medical officers from regiments has fostered, and not destroyed, the military spirit of the doctors. The wish now seems strong to become members of "a corps," not merely members of the medical profession *serving the Army*, but a Royal corps—like the engineers, for instance,—serving *with* the Army, and part and parcel of the Army, with rank and privileges, honours and rewards, counted as their rightful due, just as the cavalry, artillery, engineers, or line might count upon them.

It is to be feared that the Secretary for War will be driven to attempt a compromise, which will satisfy nobody. More pay, more money, will be offensive to the Treasury; more power and greater privileges will be offensive to the Horse Guards. But we are sure that a broad, bold course of action would be the best. A patched Warrant, which counts on getting medical officers anywhere and everywhere, by competition or without it; which implies command, and does not give it; which provides for horse allowance, and yet substitutes the loan of a troop horse; which grants a uniform that seems no admission to social gatherings; which aggravates rather than lessens the invidious distinction between "combatant" and "non-combatant" officers;—such a Warrant as this will never restore the Army Medical Department; and from all we hear we look forward to a failure and to a new committee to enable the Secretary for War to start afresh.

THE WEEK.

TOPICS OF THE DAY.

In continuation of the remarks which we last week felt it our duty to make on the invidious distinction exhibited by the authorities in awarding honours to combatant and non-combatant officers, we believe that it has now been semi-officially stated that no further recognitions will be awarded until the termination of the war. This rule might have been recognised as a just one by everybody had it been laid down at the commencement of hostilities, but we much fear that when time has somewhat dimmed the memory of the pre-eminent services of Surgeon Reynolds at Rorke's Drift, and other gallant actions have likewise to be considered, his superior claims for the decoration of the Victoria Cross may become merged in the general mass of meritorious workers in the African campaign. If the gallantry of Lieutenants Chard and Bromhead was so conspicuous that instant and most special recognition was called for, on what principle of

justice can Surgeon Reynolds' reward be delayed until the end of the operations? Common justice and good policy demand that the authorities should make Surgeon Reynolds' case as equally exceptional as the case of Lieutenants Chard and Bromhead. While on this subject, it will not be out of place to quote the remark of a correspondent with Colonel Wood's column, in recording the particulars of the attack upon the camp at Kambula on March 29 last; he says:—"I am happy to tell you that the Medical Department behaved splendidly. Doctors Brown and Thornton performed an amputation of the arm under a fire which would have shaken the nerves of most. Doctors Connolly and Jolly were the last to leave the Zhlobane Mountain, and at the imminent risk of their lives assisted several men who were wounded." The present campaign is undoubtedly an exceptional one, and so far the profession has no reason to be ashamed of its members who have been called upon to take part in it.

Dr. Forbes Winslow has published some comments on Mr. Dillwyn's Lunacy Bill, in which he notes that it proposes that all private asylums should be bought up by Government and converted into public institutions; but as this provision is permissive it is, he thinks, worthless. Further, the proposal that no person, except under certain conditions, is to be admitted into a private asylum without an order of a justice and two medical certificates, appears absurd. He also condemns the order for the admission of a patient terminating after three years unless the medical superintendent can testify that the detention of such person is for his own safety and that of the public. The only useful clause in the Bill, he considers, is that which permits patients to place themselves under treatment in asylums of their own free will, and which applies to dipsomania. Dr. Winslow regards the measure, on the whole, as a useless and peculiar Bill, and he challenges the opponents of the present lunacy law to bring forward a single instance of illegal detention in a private asylum.

The 10th inst. was the seventh anniversary of Hospital Saturday in Birmingham. The date fixed for the collection was later than usual, on account of the low state of trade and the distress which existed in the town at the commencement of the present year, and altogether very gloomy anticipations were circulated as to the probable results. Contrary, however, to general opinion, the amount handed in at the Joint Stock Bank, on the Saturday afternoon, amounted to £2481, or an increase of £339 upon the first day's return of last year.

A very praiseworthy effort is being made by the friendly societies in the Birmingham district to secure a better system of medical attendance for their members. At a recent conference of representatives from friendly and other sick benefit societies, held at Upper Gornal, it was decided to communicate with the various lodges in the district, with a view to securing general co-operation in a scheme for uniting in the appointment of medical officers over a given area, who shall devote their whole time and attention to the members only, a sufficient salary being offered to make it worth the while of these gentlemen to abstain entirely from any other practice.

The Select Committee of the House of Commons appointed to consider the provisions of the Coroners' Bill at their last week's meeting proceeded to take evidence as to the working of present arrangements in Scotland. Dr. Maclagan, Professor of Medical Jurisprudence in the University of Edinburgh, was first examined. He explained the course adopted, and described the duties of the sheriff and procurators-fiscal, and the method of carrying out precognitions and post-mortem examinations in Scotland; he also detailed the exceptions in the case of Glasgow, where there were two gentlemen who were always employed to make such examinations. The fees were £1 for attending before the procurator-fiscal, and two guineas for attending post-mortem examinations. Such examinations were never held in public-houses, and were conducted only in the presence of those ordered to make them. He admitted that in many of the outlying districts a great deal was wanting with regard to medical post-mortem examinations, but he thought the majority of the people of Scotland would prefer their own system to the coroner system of England. As to the amounts paid for analyses, Dr. Maclagan said they varied very much; in the recent Chantrelle case he received fifty guineas. Mr. Brown, procurator-fiscal for the lower part of Lanarkshire, was the next witness. He said that, having regard to the theory of the office, there was no doubt the sheriff was the coroner in Scotland, and the procurator-fiscal was one of his assistants. The city of Glasgow was divided into police districts, and to each was attached a surgeon, who was paid by the magistrates. According to the report of these surgeons the witness had to decide whether or not application should be made to the sheriff for an order for a post-mortem examination. Contrasting the two systems, he believed the Scotch system to be the best, though many persons whose opinions were entitled to weight thought differently. At the termination of Mr. Brown's evidence the inquiry was adjourned.

The annual conference on the subject of the national water-supply was held last week in the rooms of the Society of Arts, Lord Alfred Churchill presiding, in the absence of Mr. Stansfeld, M.P., who was prevented by indisposition from taking the chair. The distribution of the gold and silver medals for the "Best Suggestions for Dividing England and Wales into Districts for the supply of Pure Water to the towns and villages in each district" was considered, and the committee appointed to adjudicate on the twelve papers sent in reported that not one of the number was worthy of the gold medal, but that two were worthy of silver medals—the first, by Mr. Toplis; the second, by Mr. Joseph Lucas. In addition to the conference, an interesting exhibition of sanitary appliances for water purification, sewage utilisation, and for the erection of healthful houses, was arranged for the inspection of the meeting.

One of the largest and most influential deputations which has for many years been got together, last week waited upon the Duke of Richmond and Gordon at the Privy Council Department, to ask that a charter might be granted to Owens College, Manchester, and that, along with the Yorkshire College of Science, it might be raised to the rank of a University for the Northern Counties, under the name of the "Victoria University." We have not space to record the names of those present; both houses of legislature were fully represented, as were the Universities of Oxford and Cambridge, the municipal authorities of Yorkshire and Lancashire, and the principal educational establishments in those counties. The Duke of Devonshire introduced the Manchester portion of the deputation, and the Archbishop of York that from the county of Yorkshire. After listening to the various speakers, the Duke of Richmond thanked the deputation for the very clear and open statements which had been made on the subject. He reminded them that in the first place her Majesty's Government had been asked to confer a charter upon Owens College, which was objected to by other towns in Lancashire and Yorkshire. If that application had been acceded to the present united proposal could not have been made. He promised that the question should have the most attentive consideration of

himself and his colleagues, but he could not, of course, express an opinion as to the steps likely to be adopted.

On Monday last a meeting of the Council of the Hospital Sunday Fund was held at the Mansion House, Mr. Alderman McArthur, M.P., presiding. The Earl of Aberdeen accepted a seat on the Council in succession to the late Earl Russell. Resolutions were passed inviting the Lord Mayor to attend at St. Paul's and Westminster Abbey on the forthcoming anniversary, June 15 next. A valuable table showing the last three years' average gross annual income of the several charities interested, as well as expenditure, payments by patients, percentage of cost of management to that of maintenance, etc., was ordered to be prepared for the use of the Council. After the consideration of some other matters the proceedings terminated.

At the last fortnightly meeting of the managers of the Metropolitan Asylums District, Dr. Brewer presiding, it was reported that, during the fortnight ending the 10th inst., the number of small-pox patients admitted at Hampstead was 4, discharged 12, remaining 19; at Fulham, admitted 50, died 2, discharged 30, remaining 87—total remaining 215, being a decrease of 2 on the previous fortnight. At Stockwell Fever Hospital 20 patients were admitted, 2 died, 20 were discharged, and 73 remained. At Homerton 9 were admitted, 7 were discharged, and 82 remained, and there were no deaths. The total number remaining under treatment was 155, the same number as during the preceding fortnight.

THE SEWAGE QUESTION.—THE LIABILITIES OF LOCAL BOARDS.

In the Supreme Court of Judicature, on May 9, an appeal was heard from a decision of Vice-Chancellor Malins, which raised a question of importance with regard to the liabilities of local boards. Mr. F. Glossop, owner and occupier of an estate known as Silver Hall, Isleworth, brought an action against the Heston and Isleworth Local Board, claiming an injunction to restrain the defendants from permitting sewage, or water polluted with sewage or other offensive matter, to pass through the drains or channels under their control into the River Crane in such a manner as to render the water in the river at or near the plaintiff's residence unfit for use by the plaintiff, or injurious to the health and comfort of persons resident on such premises. The plaintiff alleged that formerly the river was a clear running stream, with a clean gravel bottom, and full of clean-feeding fish; and that it was used for bathing, and was fit for ordinary domestic purposes; whereas it was now turbid with fæcal matter, foul, and offensive. And he asserted that his family had suffered from attacks of low fever and other forms of disease arising from the poisonous gases given off by the water of the river. The action was commenced in July, 1876, and the defendants had been first constituted in November, 1875. They denied many of the statements made by the plaintiff, and asserted that the river had been in the same state for the last twenty years. They also said they had not had time to provide a proper system of sewers for the district, but that they had already taken steps to do so. The Vice-Chancellor, in June last, decided that the plaintiff had good grounds for his complaints, and granted an injunction. Against this decision the defendants now appealed. Lord Justice James, in giving his judgment, commented at some length on the case. He said the action had been brought through a misapprehension of the legal rights against, and the legal liabilities of, the Board. It was not based upon any act done by them, but on their alleged neglect to perform the Parliamentary duty cast on them as the sanitary authority. If the present action could be maintained, he said, it would be a very serious matter for every ratepayer in every district where there was any local authority on which the performance of public duties was cast. Such an action could equally be maintained by every owner of land within the district who could allege that his property would have been improved by a proper system of drainage. Every owner of property in London could bring an action against the Metropolitan Board of Works if they had not constructed a proper system of drainage. The Board were liable to be restrained from doing that which would have been a legal wrong but for the Act, and which was not justified by the Act or excused by it; but not to a mandatory injunction. They had no particular duty cast upon them with respect to any particular individual; the duty cast upon them was the effectual drainage of the whole district. It could not be said that the defendants, who were only appointed in November, 1875, had been guilty of any neglect, when this action was commenced in July, 1876; but if they had, the proper remedy was by an application for a *mandamus* to the Queen's Bench Division. Lord Justices Brett and Cotton delivered judgment to the same effect, Lord Justice Brett observing that he should be sorry to differ from the conclusion of the Vice-Chancellor that the state of the river Crane was such as to give reasonable cause of complaint to the plaintiff. As a matter of fact, it seemed to him that the drainage of the district was in an unsatisfactory state, and he should be sorry to hold that it was not the duty of the defendants to cure the mischief. Lord Justice Cotton expressed his concurrence in this view of the condition of the river. The appeal was allowed, and the action was dismissed with costs.

THE ROYAL COLLEGE OF SURGEONS.

A MEMORIAL numerously signed by Fellows of the Royal College of Surgeons of England has been presented to the President and Council of the College, pointing out "the hardship and inconvenience which the Fellows of the College who reside at a distance from the metropolis labour under in exercising the right they possess of voting at the election of members of the Council"; and praying that "such an alteration in the by-laws be made as to permit Fellows, who are prevented from any cause from attending the meeting, to vote by voting papers, properly attested, or by proxy." It must no doubt seem to the county Fellows hard that they cannot exercise their right of voting except at the loss of time and the expense entailed by a journey to London; and it is a fair question for careful discussion and consideration, whether or not the change prayed for would, on the whole, be for the benefit of the College. We do not propose, however, to go into this subject now; but we must observe, considering that the change has been mooted several times before, it is curious that the Fellows should suppose that it is a question of an alteration of the *by-laws*. Unless we are strangely mistaken, the present system of voting is settled by the charter of the College, and the Council of the College have therefore no power whatever to grant the prayer of the memorialists. We believe that the memorial has been signed by only three Fellows resident in London. It would be interesting to know whether the metropolitan Fellows have been canvassed for their support, as have, apparently, been the provincial Fellows. The election into the Council this year will take place on Thursday, July 3. Four vacancies will be declared, caused by the death of Mr. John Hilton, and the retirement, by rotation, of Messrs. F. Le Gros Clark, T. Spencer Wells, and George Critchett. We understand that neither Mr. Clark nor Mr. Critchett will seek re-election; but Mr. Spencer Wells will offer himself for re-election. For the other vacancies, Professor J. Wood (of King's College), Mr. H. Power (of St. Bartholomew's Hospital), and Mr. Bryant (of Guy's Hospital) will come forward. It is probable also that Professor Lister (of King's College) will again be brought

forward; and Mr. Barwell (of Charing-cross Hospital) is mentioned as probably a candidate. We have not heard that any provincial Fellow will be proposed on this occasion.

A TWENTIETH MEDICAL LICENSING BODY.

"The University of St. Patrick" is the title of the new Irish University proposed to be founded under the University Education (Ireland) Bill, 1879. This measure, which bears the names of The O'Conor Don, Mr. Kavanagh, Mr. Shaw, Mr. Mitchell Henry, Lord Charles Beresford, and Mr. Parnell, is entitled "a Bill to make better provision for University Education in Ireland," and is intended to cut the Gordian knot of this much vexed question. In the Faculty of Medicine and Surgery in the University it is proposed that an exhibition of £20 for every ten students who, at the end of the first session of the course of medicine and surgery, shall pass the examination, shall be assigned, to be granted only for sufficient merit, and to last for the four years of the course of medicine and surgery. Results-fees shall be payable to the colleges affiliated to the University for students who pass in the same Faculty according to the following scale:—First year, £20, £30; second year, £25, £35; third year, £30, £40; fourth year, £35, £45. The degrees of Bachelor and Doctor of Medicine and of Master in Surgery are to be conferred by the University. The measure is not at all likely to pass, and will surely be met with determined opposition by the existing Irish Universities, if not by the King and Queen's College of Physicians and the other licensing bodies also.

ADDRESS AND PRESENTATION TO PROFESSOR HAUGHTON.

An address, accompanied by a valuable gift, was presented, on Thursday, May 15, by the staff of the School of Physic in Ireland to the Rev. Dr. Haughton, Fellow of Trinity College, Dublin, on the occasion of his resignation of the office of Registrar of the Medical School. The presentation took place in the Divinity Lecture-room, New-buildings, Trinity College. There was a considerable attendance, including a number of ladies. The chair was occupied by Dr. Alfred Hudson, Regius Professor of Physic, who read the address to Professor Haughton; and Dr. J. Emerson Reynolds then presented Dr. Haughton with a handsome silver salver, bearing the following inscription:—"To the Rev. Samuel Haughton, M.D., F.T.C.D., D.C.L., F.R.S., from the Professors, Lecturers, and Demonstrators of the School of Physic in Ireland, in testimony of his services as Medical Registrar.—May, 1879." Dr. Haughton, in the course of an appropriate and characteristic reply, alluded to the labours of the celebrated Dr. Macartney, Professor of Anatomy in the School of Physic, whose lectures attracted crowds of students, not only from every part of Ireland, but from England as well, anxious to benefit by his lectures. He had taken the middle period of Dr. Macartney's career, and he found that the annual number of students was ninety, of whom twenty were from England. Of these ninety, however, there were 90 per cent. who were content to learn their profession as a trade, and who did not cultivate the highest education in arts. Of the entire number about twenty were from England. Dr. Todd had prophesied that the time would come when they would have these proportions reversed. That prophecy had been fulfilled. From 1863 to 1878 the average number had been seventy, which, making allowance for the absence of the exceptional circumstances which in Dr. Macartney's time drew men from England to Dublin, was about the same number. But the proportion of those who now cultivated the highest branches of education was 90 per cent., and only 10 per cent. were satisfied with learning their profession as a trade. More than that; of the 1800 or 1900 young men who entered the profession annually throughout the United Kingdom, about 100 were graduates in arts, and of these more than half were from Trinity College. They therefore were not competitors with any other school, but were at the head and front of all the schools.

VITAL STATISTICS FOR ENGLAND AND IRELAND.

A comparison of the last quarterly returns issued by the Registrars-General in England and Ireland, for the period ending March 31 last, shows that the birth-rate in the former was 34·9 per 1000, and in the latter 26·3; the death-rate in the former having been 25·1, and in the latter 24·2 per 1000. The birth-rate was slightly below the average for England, whilst in Ireland it was the same as for the corresponding quarter of last year, but somewhat under the average for the first quarter of the five years 1874-78. The rate of mortality was above the average in England, but was lower than the rate prevailing in the winter of 1870, and much lower than in the winter of 1875. In Ireland the rate of mortality is in excess of any of the first quarters of the five previous years, and is sought to be accounted for by the severity of the past winter. Zymotic diseases were not more fatal than usual for the March quarter in the sister island, the annual mortality represented by the deaths from the eight principal diseases of this class being only 2 per 1000 of the population. In London scarlet fever and whooping-cough were the prevailing zymotic diseases, but their mortality was not very considerable, and the deaths, notably from fever, were below the average. The low temperature of the first three months of this year unfavourably affected the public health in England, but not to the same extent as the cold weather in the first quarters of 1870 and 1875. The lowest daily temperature was below the freezing-point of water on forty-nine days during the last quarter, showing 185·4° aggregate of frost. In the first quarter of 1870 there were forty frosty days, yielding 188·2° of frost; and in 1875 thirty-seven frosty days, and only 114·3° of frost. The death-rate in England last quarter showed a marked excess upon the low rates that prevailed in the comparatively mild first quarters of 1877 and 1878, but was considerably lower than the rates (26·0 and 27·5 per 1000) in the corresponding periods of 1870 and 1875. It is a fact that the cold of the past winter quarter was less fatal than the cold of the first quarters of 1870 and 1875, but why this was the case cannot easily be determined. The Registrar-General for Ireland remarks that the deaths registered during the first quarter of this year are not only over the average for the March quarter, but are more numerous than in any previous quarter since registration was established in Ireland in the year 1864. The deaths of persons aged sixty years and upwards amounted to the high number of 14,556, or nearly 3000 over the average for the first quarter of the last five years, and the Registrar's reports show that this excessive mortality resulted from diseases of the respiratory organs, and other affections which the inclement weather rendered exceptionally fatal.

THE PATHOLOGICAL SOCIETY OF LONDON.

At the meeting of this Society on the evening of Tuesday last, the report by the Committee appointed to inquire into the subjects of pyæmia, septicæmia, and allied conditions, was presented. The document was a very bulky one, and only an abstract was read. It will be recollected that, in his inaugural address as President of the Society, Mr. Jonathan Hutchinson threw out suggestions for the adoption of a plan whereby, without protracting the meetings, more specimens might be exhibited before the Society. The Council have accordingly adopted the following resolutions:—"1. That, in order to facilitate the exhibition of specimens, and to save the time of the Society's meetings, it is desirable that arrangements should be made under which preparations, drawings,

etc., may be shown without any *oral* communication. 2. That the following be the conditions under which such exhibitions may be made:—(*a.*) The specimens or drawings must be ready for inspection in the Society's rooms not later than 8 p.m., and must remain on the table until ten minutes after the close of the meeting. (*b.*) A card, provided by the Society, must be placed with the specimen, and on it must be clearly written a short account of the specimen, comprising all the particulars intended for publication. The exhibitor (or his representative) must be present at the meeting, and be willing to furnish additional details if asked for. (*c.*) That at every meeting of the Society the rooms be open for the inspection of specimens, etc., at 3 p.m.; the chair to be taken, as usual, at 8.30 p.m. (*d.*) That the list of specimens exhibited by card be read to the meeting by the President; and that such specimens be taken for consideration and discussion in the course of the meeting, alternately with other specimens, at the discretion of the President. (*e.*) That the Council be requested to act as a committee to supervise the working of the new regulations."

THE HAMPSTEAD SMALL-POX HOSPITAL CASE.

THE appeal for a new trial in the case of Hill and others *v.* the Managers of the Metropolitan Asylum District came on in the Queen's Bench Division of the High Court of Justice, before the Lord Chief Justice, Mr. Justice Mellor, and Baron Pollock, on Tuesday last. It will be remembered that the action was brought by Sir Rowland Hill and two other gentlemen, owners and occupiers of house property at Hampstead, for alleged damage arising from the establishment of the Small-pox Hospital there; and that after a protracted trial and a careful summing up by the judge, Baron Pollock, the jury found for the plaintiffs, giving specific findings in their favour on every head of their case. The Judge, after full consideration, upheld the verdict, and gave judgment for the plaintiffs. The defendants appealed on the grounds that the verdict was founded on misdirection, and that it was against the evidence. The arguments for and against the appeal occupied the whole of Tuesday and Wednesday, and it was expected that judgment would be delivered next day.

PATHOLOGICAL SOCIETY OF DUBLIN.

AT a special general meeting of the Society, held on Saturday, May 17, in the anatomical theatre of the School of Physic, Trinity College, William Moore, M.D., President, in the chair, the following resolutions were adopted as by-laws:—"1. That in future students be admitted to meetings of the Society. 2. That members not in arrear with their subscriptions shall receive at the beginning of the session thirty-eight tickets for distribution to students at the rate of not more than two tickets for each meeting of the Society. 3. That discussion be permitted at the meetings of the Society. 4. That the hour of meeting be five o'clock in the afternoon. 5. That any essay on a subject in general or special pathology, accompanied or not with specimens, may be laid before the Society. A week's notice must in such case be given in writing to the secretary; and that such notice be communicated to the members by circular."

THE CHARTERHOUSE.

BY the death of Dr. Nicoll the post of Medical Officer to the Charterhouse is vacant; and we hear that Dr. Robert Fowler, well known as a professional gentleman and author, is a candidate for the post. Of Dr. Fowler's claims we need not say much—they will be generally recognised; but from a personal acquaintance of years we can safely affirm that no better, kinder, or more faithful medical attendant could be found for any poor old Colonel Newcome in the Charterhouse or elsewhere. The following is a list of the Governors:—The Queen, the Prince of Wales, Duke of Buccleuch and Queensberry, Earl of Harrowby, Archbishop of Canterbury, Earl of Devon, Archbishop of York, Right Hon. William Ewart Gladstone, Right Hon. Sir Wm. Erle, Bishop of London, Lord Hatherley, Duke of Marlborough, Lord Cairns, Rev. Dr. Currey (Master), Lord Selborne, Earl Brownlow, Bishop of Rochester, Earl of Beaconsfield.

THE TREATMENT OF THE PEDICLE IN OVARIOTOMY.

PROFESSOR SPIEGELBERG, of Breslau, reports (*Berl. Klin. Wochenschrift*, May 5, 1879) thirty-five cases of ovariotomy performed in his clinic since the summer of 1876, with the strictest antiseptic precautions (Lister's method), of which thirty, or 86 per cent., recovered. He contrasts this favourable result with that obtained by himself under the older system (Spencer Wells's), when twenty-five out of forty-five cases, or only 55 per cent., were saved. The success of antiseptic ovariotomy, however, thanks to Schröder, Keith, Olshausen, Hegar, and others, requires no proof. What Spiegelberg wishes to show from his recent cases is, that it is possible to operate, using the clamp to keep the end of the pedicle outside the abdominal wall, as successfully as by ligaturing the pedicle, and returning it into the peritoneal cavity. Of nineteen cases treated by Spiegelberg with the clamp, eighteen recovered; while of the sixteen in whom the pedicle was ligatured and returned, four died. In the latter, however, were included the most difficult cases. He combats Olshausen's objection to the clamp—namely, that the raw end of the pedicle after its removal allows the entrance of septic matter into the system—by denying that if Lister's method be properly carried out any septic matter can reach the wound. The complete closure of the abdominal cavity can be readily effected by carefully securing the edges of the peritoneal wound and those of the external wall by sutures according to Spencer Wells's directions, so that they slightly compress the pedicle. Spiegelberg admits that other objections to the use of the clamp—the frequent occurrence of suppuration in the lower angle of the wound, the slower healing of the external wound, and the formation of a broader cicatrix in its lower angle—are valid; but he denies either that in his experience the adhesion of the pedicle to the abdominal wall is any obstacle to pregnancy or menstruation, or that the pedicle can slip out of the clamp into the peritoneal cavity, unless great carelessness is used in applying the instrument. In conclusion, he declares that he does not oppose the practice of returning the ligatured pedicle, but that his impression is (seeing that pelvic suppuration is by no means very rare, later on, in patients thus treated—which is not the case in those treated by the clamp) that "the future of patients with a clamped pedicle is a safer one than that of those in whom the pedicle has been returned."

THE MEDICAL ACT AMENDMENT BILLS.

THE Select Committee of the House of Commons to inquire into the constitution of the General Medical Council, and to consider the three Medical Act Amendment Bills, and the Medical Appointments Qualifications Bill, has not yet been nominated. But we have good reason for believing that Mr. W. E. Forster will be appointed chairman of the Committee; and it will be generally recognised that a better choice of a chairman could not have been made.

EDINBURGH UNIVERSITY MURCHISON MEMORIAL.

IT having been determined, under the auspices of the Edinburgh University Club in London, to found a memorial of the late Dr. Murchison in connexion with his University, a meeting is announced to be held to discuss the measure, at the house of Mr. Lister, 12, Park-crescent, Portland-place, at five o'clock on Thursday, 29th inst., when all friends and others interested in the scheme are invited to be present.

ROYAL COLLEGE OF PHYSICIANS.

The Harveian Oration will be delivered at the Royal College of Physicians, London, by Dr. Wilks, on Thursday, June 26, at five o'clock. The Fellows of the College will give a *conversazione* at the College on Wednesday, July 2, at nine o'clock.

MEDICAL PARLIAMENTARY AFFAIRS.

Habitual Drunkards.—In the House of Lords, on Thursday, May 6, in committee on Clause 3, it was proposed to insert an amendment to provide that the applicant for admission should be "of sound mind." The Lord Chancellor suggested the insertion of the words "not being amenable to any jurisdiction in lunacy." This was agreed to, as was also another that the applicant should be "at times" dangerous to himself or others. The House declined to extend the provisions of the Bill to the case of opium-eaters. A new clause was agreed to, that no licence should be given to any person who is licensed to keep a house for the reception of lunatics. Progress was then reported.

The Public Health (Scotland) Provisional Order Bill was read a third time.

Slaughter-houses.—In the House of Commons, Mr. Sclater-Booth, replying to Sir E. Wilmot, said that the Public Health Act enables all urban sanitary authorities to provide slaughter-houses, and to make by-laws for their proper management, and to see that they are duly registered and inspected, whether they are public or private slaughter-houses. The Local Government Board may confer similar powers upon any rural sanitary authority upon application for the same. A series of model by-laws has been issued by the Local Government Board. Hence he did not think it expedient to bring them under more immediate Government supervision.

MILK TYPHOID IN DUBLIN.

At a meeting of the Medical Society of the King and Queen's College of Physicians, held on Wednesday, May 7, Dr. Cameron, Medical Officer of Health for Dublin, made an elaborate communication on an epidemic of fever caused by infected milk, which has been already noticed in these columns.

About Christmas, 1878, several cases of typhoid fever occurred in houses situated in Raglan-road and Elgin-road, Pembroke Township, a suburb of Dublin. Towards the end of January circumstances led Dr. Cameron to investigate the causes of the outbreak. He was not long in discovering that all the households affected were supplied with milk from a particular dairy, and also that the owner of the dairy, Mr. X, had been ill with fever since the middle of December. He subsequently ascertained that two children had been ill with fever of some kind during December, and that all the patients had remained in a small house attached to the dairy. There was neither water-closet nor *petit* in connexion with either house or yard. At the end of the yard—most remote from the house, and quite close to the cows—Dr. Cameron found an accumulation of cow manure and litter. On the top of this heap he noticed a contribution from the household, consisting of ashes, human ejecta, and the other effete matters which usually are consigned to the water-closet and ashpit. He was informed that the refuse from the dwelling-house was daily deposited upon the dung-heap, and the admixture of the two compounds was removed once or twice a week.

The milk utensils, or at least some of them, were placed on shelves against the walls—partly of the house, partly of the yard, and close to the gateway. During the removal of the manure, etc., they could hardly escape, especially on a windy day, from particles of solid matter getting into them. There did not seem to be a regular dairy apartment in the place. Some of the dairy operations were conducted in the kitchen, which opened direct into the yard, but the major portion of the dairy processes appear to have been conducted in the yard and sheds.

In the subsequent portion of his paper, Dr. Cameron showed that at thirty distinct points at which the milk from X.'s dairy was distributed, sickness appeared in December and the early part of January, and that sixty-seven persons were affected. The total number of points at which the milk, so far as he had been able to learn, was distributed, was forty-two; therefore, illness appeared at 71 per cent. of these points.

The milk supply of three places was fully inquired into—namely, Raglan-road, Elgin-road, and Fitzwilliam-square. The total number of occupied houses in these places last December was 125. Dr. Cameron was unable to ascertain any particulars pertinent to the subject of his paper in the cases of five(a) of these houses, except that about Christmas there was no fever in any of them. Concerning the 120 houses of which he had procured exact information, the following are the statistical details:—Mr. X. supplied twenty-five of them with milk, and twenty-five other vendors furnished milk to ninety-one of them; in four of them cows were kept by the families. In fourteen of the twenty-five households supplied by X., fever attacked no fewer than thirty-one persons within the space of one fortnight—most of them within one week. In the ninety-five households supplied with milk from other sources not a single case of fever or serious illness of any kind occurred during December or January. Even if there was no evidence at all with respect to the existence of fever at X.'s dairy, we could not avoid coming to the conclusion that the milk sent out from it was in some way concerned in the introduction of fever into these fourteen houses. It may be asked, Why did not everyone who drank the milk sicken? The zymotic poisons are not like arsenic or strychnine—they are not so certain in their action. Water which it is known had given typhoid or Asiatic cholera to some persons had been drunk with impunity by others. Some persons cannot be vaccinated. Perhaps, too, the milk may have had infected matter in it on two or three occasions only. On Wednesday evening, May 14, the discussion on Dr. Cameron's paper was fixed to take place at an adjourned meeting of the Medical Society.

FROM ABROAD.

The Paris Hospitals Mortality Returns.

Dr. Ernest Besnier, in his report on the diseases prevailing during the last three months of 1878 (*Union Méd.*, February 4, 13), observes that the series of temperate winters we have had of late years is either closed or interrupted; for the temperature of this last quarter only measured a mean of 5·9° C., while the mean of the same period calculated from 1806 to 1870 was 7·1° C. The hygrometric degree has also been raised, the height of rain measuring 223·88 millimetres, the mean height of the period calculated from 1806 to 1872 being 126·70. Large quantities of snow also fell. The winds were often violent and very variable. The *general mortality* for the quarter in the hospitals and hospices (3150) exceeded that of the mean of the six preceding years (2941), but not notably surpassing the proportion due to increase of population. The mortality of the entire year is almost the same as that of the two preceding years, so that the enormous increase of population during the Exposition exerted no influence whatever on the hospital mortality.

1. *Affections of the Respiratory Organs.*—The deaths from phthisis were 61·56 per cent. of the cases admitted, the mean of the preceding nine years having been 51·14; from pneumonia 36·84 as compared with 37·72; from bronchitis 8·09 as compared with 2·47; and from pleurisy 10·68 as compared with 13·03.

2. *Rheumatic Affections.*—These have been unusually numerous. Dr. Bucquoy, of the Cochin Hospital, states that most of the cases which came under his care were of the subacute form, and that all his cases were treated with salicylic acid. In the hyperacute form, with delirium and cardiac complications, he commences with ten grammes, and generally less than forty-eight hours are required for the mitigation or almost complete subsidence of the pain. As a general rule, the remedy is well borne. For the first

(a) Exclusive of one on Elgin-road, which he had assumed X. supplied.

time during the two years that he has employed the salicylate, Dr. Bucquoy has had a case of acute rheumatism in which the patient died suddenly while under treatment with this drug. A young man, aged seventeen, was admitted for a second attack of rheumatism, which was generalised, and had not long commenced. The salicylate assuaged his pain, but he suffered from a great difficulty of breathing, which the cardiac and pleural complications did not explain. After some days of treatment he seemed in a very satisfactory condition, and the dose of the salicylate had been diminished, when one evening the excessive dyspnœa returned, and he speedily died. The autopsy exhibited very great congestion of the kidneys, with a commencement of fatty degeneration—*i.e.*, albuminous nephritis. Dr. Bucquoy observes that, while ignorant of the part which the salicylate may have played in the production of this, he has always been very careful since to examine the urine of patients with rheumatism for albumen.

3. *Albuminuria.*—In connexion with the atmospheric conditions referred to, cases of albuminuria have been unusually frequent, the cold usually acting, however, only as an occasional cause in inducing albuminuria, nephritis, or anasarca in persons in whom pathological conditions, either known or latent, existed. Dr. Besnier insists that in such atmospheric conditions the search for albumen should be made with more than ordinary attention, and that a vigilant prophylaxis should be exerted in those cases in which the action of cold may determine or aggravate renal manifestations.

4. *Diphtheria.*—The epidemic of diphtheria which exists permanently in Paris attained the greatest height that has ever been observed in 1877, and since the commencement of 1878 has exhibited a slow but continuous decline, leading to the hope of a true decrease. With its present population we may estimate 1000 deaths as the annual tribute paid by diphtheria in entire Paris; but for several years this has regularly increased in all classes of society. In 1874 the deaths were 1008; in 1875, 1328; in 1876, 1571; and in 1877, 2398. The year 1878 furnished only 1995 deaths. "One might fear," Dr. Besnier observes, "lest this should be only a temporary diminution—one of those fleeting subsidences observed in epidemic curves, even while pursuing their ascending curves. I am not disposed to believe it, for this reason, which I regard as positive, viz., that the seasonary recrudescence, habitual at the commencement of winter, has remained relatively latent, since the mortality from diphtheria in the fourth quarter of the year (365) is almost the same as that of the preceding quarter (368), which would be an exception to the rule which I regard as invariable." So also diphtheria, as observed in the children's hospitals (where it is described as croup) has undergone a like decline from 249 cases in the fourth quarter of 1877 to 179 in that for 1878. Of these 179 cases, 133 (74·30 per cent.) proved fatal. Dr. Besnier again adverts to the necessity of *isolation* of this and other contagious diseases in the hospitals; and, while admitting that the present administration is willing to repair the neglect of its predecessors, which he has so often exposed, he finds that a mere beginning has been made. "It is not yet understood in our country that the public health demands, on the same grounds as public instruction and armaments, sacrifices proportioned to the necessity of the case."

5. *Small-pox.*—During the first nine months of 1878 in the whole of Paris there were only thirty-seven deaths from small-pox, and that notwithstanding the great immigration from all parts of the world; but during the fourth quarter the deaths amounted to fifty-two, spread over all the arrondissements except the first. The same increase has been observed in the various hospitals as in the town at large—the number of cases admitted during this quarter being seventy-eight, with seventeen deaths. The fact is, that as small-pox of late had become so rare in Paris, some quarters of the year passing without a single death being registered, vaccination, and especially revaccination, have been much neglected; while during the prodromic period diagnosis has been imperfectly performed, and the requisite isolation not insisted upon. "Nothing seems to be better established," Dr. Besnier observes, "but nothing appears more inexplicable, than the variability in contagious power of the same affection in the same locality, at the different epochs in which it is observed. The considerable current of temporary or definitive immigration occurring in Paris incessantly transports these subjects attacked by variola and all other contagious diseases; and at certain epochs all these subjects of small-pox form around them a contagious atmosphere, creating primary centres, the principal agents of epidemic multiplication. At other times, on the contrary, the imported cases remain sterile, isolated, and sporadic, not spreading out, or only multiplying within a very limited radius. For some years past, variola has remained thus sterile on Parisian territory, and that in proportions of which I know of no example in the history of Parisian epidemiology—rare explosions having taken place, but slight, brief, and rapidly followed by complete repose. Is the present exacerbation of as slight importance? Is it to terminate rapidly, or is it but the first announcement of a new epidemic? This last supposition is unfortunately the most probable one."

6. *Typhoid Fever.*—Typhoid fever, which caused 3158 deaths in 1876, and 2215 in 1877, only produced 1447 deaths in 1878—remaining, both as regards its frequency and gravity, below the mean as calculated since 1867.

In a recapitulatory table we find the following statement of the number of cases and the mortality of the principal "popular" diseases in the hospitals during the year 1878:—Variola, 132 cases and 24 deaths; rubeola, 430 and 72; scarlatina, 127 and 6; erysipelas, 702 and 39; typhoid fever, 1447 and 295; intermittent fever, 733 and 1; rheumatism, 3273 and 35; influenza, 149 and 1; pertussis, 108 and 15; croup and diphtheria, 839 and 595; laryngitis, 565 and 43; bronchitis, 4741 and 342; pneumonia, 1712 and 589; pleuritis, 1273 and 164; phthisis pulmonaris, 4285 and 2466; angina, 686 and 173; *embarras gastrique*, 1343 and 0; enteritis, 196 and 65; diarrhœa, 438 and 82; dysentery, 193 and 27; icterus, 295 and 54.

GENERAL CORRESPONDENCE.

MALT EXTRACTS.

LETTER FROM DR. W. ROBERTS.

[To the Editor of the Medical Times and Gazette.]

SIR,—My attention has been directed to the following sentence on page 521 of your issue of May 10:—

"Dr. Wm. Roberts read, at a meeting of the Lancashire and Cheshire Branch of the British Medical Association, on April 26, a paper on 'Digestive Ferments,' including the various malt extracts; and we are informed that he placed Kepler's extract first on the list of malt extracts that he had found reliable and containing a proper amount of diastase."

Complaint has been made to me that this reads as if I had said that Kepler's extract was superior to the other active extracts that I had examined. This, however, was not the case. What I really did say was that I had found the following brands of malt extracts very active—namely, Corbyn's, the Maltine Company's preparation, and Kepler's,—and I also added that Professor Redwood vouched for the activity of Trommer's malt extract. I am, &c.,

89, Mosley-street, Manchester, May 15. W. ROBERTS.

COLLEGIATE LECTURES.—Mr. B. T. Lowne, F.R.C.S., will commence the course of three lectures on the Physiology of Sensation, in continuation of his course of last year, in the theatre of the Royal College of Surgeons on Wednesday, the 4th prox., and be succeeded by Professor Jonathan Hutchinson, F.R.C.S., on the 11th, who will deliver six lectures on the Influence of the Nervous System in the production of Disease, chiefly with reference to the Skin, Eye, and Joints. The respective lectures will be delivered on Wednesdays, Fridays, and Mondays, at four o'clock.

UNIVERSITY COLLEGE HOSPITAL.—The Rev. Dr. Stebbing, F.R.S., has resigned the Chaplaincy of his Hospital, after a period of service extending from its foundation in 1834. Dr. Stebbing was deservedly most popular with all his colleagues, both lay and medical, on the Hospital staff; and many of our readers will be glad to hear that it is proposed to present him with a testimonial as a mark of regard upon his retirement. Subscriptions will be received by Mr. Enfield, the Treasurer of the Hospital; Dr. Hare, 57, Brook-street; Mr. McCaul, 17, Taviton-street; or Dr. Poore, 30, Wimpole-street.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MAY 6.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

THE OSSEOUS LESIONS OF HEREDITARY SYPHILIS.

THE PRESIDENT, in returning special thanks to M. Parrot on behalf of the Society for his valuable address on the subject of "The Osseous Lesions of Hereditary Syphilis," reported elsewhere in our columns (page 559), reminded the members that Dr. Barlow had already brought M. Parrot's researches before them, and shown some illustrative crania. M. Parrot had established the facts that the lesions he had described were much more common than had been supposed, that they occurred at very early periods of infantile life, and also that, though so common and so widely diffused, they yet followed certain rules in their localisation. He had further enabled us to interpret the varied malformations of the skull occurring in congenital syphilis, and he had pointed out a new and most important sign for the diagnosis of hereditary syphilitic disease in the recognition of the "natiform" skull.

Dr. D. B. LEES exhibited two children for the purpose of showing that the cranial lesions of congenital syphilis, recognised first by M. Parrot, could be easily diagnosed during life, as well as the epiphysial changes, which had long been known. The first child had been treated at the Children's Hospital for well-marked congenital syphilis when three months old, improving much after mercurial inunctions. Recently, at the age of seven months and a half, it was again brought to the hospital, presenting now four rounded bony swellings at the angles of the anterior fontanelle on the corners of the parietal and frontal bones, which could easily be felt by the finger passed over them. There was also thickening along the sutures to some extent, and at the posterior part of the skull the bone was quite thin (craniotabes). The parietal eminences, as usual, were not affected. Cranio-tabes was probably less frequent in simple rickets apart from syphilis than was generally thought. The best examples of it he had found in syphilitic children, and he and Dr. Barlow had come to the conclusion that it was one of the results of syphilis. The second child was two years and four months old, and now presented uniform thickening of the skull, but at a former period there were rounded swellings, as in the other case. There was still perceptible a distinct swelling. Above and in front of one ear a vein could be felt lying in a groove, as if the bone had grown up around it. This child had had snuffles and a rash when three months old, followed by epiphysitis, first of one elbow, then of the other, and then of the knees. At twelve months there was inflammation of both tibiæ, which were now thickened along the upper two-thirds. The child was only slightly, if at all, rickety, while the syphilitic condition was so pronounced as to justify the conclusion that the cranial changes were due to the latter disease.

Dr. BARLOW had brought a third child showing the cranial changes. This one was nine years old. Most of the cases M. Parrot had examined were very young children, in whom the prominences round the fontanelle were so marked; but in older children, like this one, the condition passed on to prominence of the parietal and frontal bones. This case showed the intermediate condition between Parrot's "natiform" skull and the conformation marked by striking frontal prominences, first recognised by the President as characteristic of congenital syphilis. This child was also deaf, and presented interstitial keratitis and pegged incisors.

Mr. MACNAMARA thought there might be a tendency to mix up rickets and congenital syphilis, and to ascribe to the latter conditions due to the former. The youngest of the children exhibited he thought was distinctly rickety, from the bending of the ribs, the cranio-tabes, and the formation of the head. In regard to the cranio-tabes in particular, it was not necessary to go out of the way, as it were, to put this down to syphilis instead of rickets. The lesions in the two diseases were essentially different histologically, and he must regard cranio-tabes as belonging to the latter. It was quite likely, however, that rickets might often co-exist with syphilis, as it might arise in any condition producing mal-nutrition. He would ask M. Parrot whether the cases whose crania exhibited well-marked lesions had been treated with mercury, because that might have some bearing on the explanation of the osseous growths. Many of them looked like ordinary periosteal nodes.

Professor PARROT, in reply, pointed out that he had mentioned two conditions as necessary for the production of cranio-tabes, namely, habitual pressure, and a softening condition of the bones. The latter might be due to syphilis or to other causes, but he believed syphilis to be by far the most frequent cause. Rickets he could hardly regard as a peculiar disease, but in syphilitic bone-disease there was a rickety stage in which the changes corresponded with those found in rickets, and this stage would precede the production of cranio-tabes.

ON THE OCCURRENCE OF ORGANISMS UNDER ANTISEPTIC DRESSINGS.

After the remarks by Mr. CHEYNE given elsewhere in our columns (see page 561),

The PRESIDENT said the Society was indebted to Mr. Cheyne for this important contribution in connexion with antiseptic surgery, which had proved one of the most beneficent surgical discoveries of the age. Mr. Cheyne's contribution ought to receive careful examination as to every detail.

Mr. LISTER, rising at the call of the President, said he had little to add. Mr. Cheyne's statements were of interest in various ways, and first, as to his method. He had not felt justified in conducting his experiments without the use of carbolic spray, and his results formed a most powerful proof of the efficacy of the spray, if any proof of that were needed over and above his own (Mr. Lister's) clinical experience. Mr. Cheyne had followed out methods of experimentation similar to those brought before the Society fifteen months ago by the speaker, but had rendered them more rigorous by this use of the spray. In almost all cases, too, he had made control experiments along with the inoculation experiments, employing flasks of the same fluid not inoculated, and he had always found the uninoculated flasks remained sterile. Then, as regards Mr. Cheyne's conclusions, the discovery of any organisms at all in really aseptic wounds was certainly not what he (Mr. Lister) had expected or hoped for, but Mr. Cheyne's evidence of their not infrequent occurrence was quite decisive. The ordinary septic bacteria, however, had never been found; and the form of micrococci met with (for there were probably many forms, as Koch had suggested) is evidently one which can resist the action of carbolic acid better than bacteria or than other micrococci can. He himself had found a similar difference between different forms of allied fungi in their power of resisting reagents, as boracic acid. Pasteur had long ago detected this difference in degree of hardiness or vitality between allied organisms; thus, after passing milk through red-hot platinum tubes, various forms of bacteria were developed in it, but not the bacterium lactis, for the milk did not become sour, and this result he (Mr. Lister) had shown to result from the development of bacterium lactis, which was found to be destroyed by a lower temperature than many other forms of bacteria could resist. So the organisms which Mr. Cheyne had found in the later stages of aseptic wounds had not produced acidity in the cucumber infusions, and were evidently not very harmful; but might we not hope to improve the dressings so as to exclude all organisms of every form? Another very important conclusion arrived at by Mr. Cheyne was that organisms do not exist in the blood or tissues of healthy animals. When he heard of the observations to the contrary he could not but think there must have been flaws in the experiments, for such a supposition was inconsistent with both the theory and results of antiseptic surgery. Thus internal abscesses, as of the liver, when opened and dressed antiseptically, remained perfectly sweet and sterile. The experiments of Tiegel and others had, besides other flaws, the important one that no antiseptic precautions were taken during the removal of the organs, and the temperature at which paraffin melts (in which the tissues were placed when removed) is too low to kill organisms. Mr. Cheyne's experiments on this point seemed conclusive that in health no organisms were present in the tissues. The detection of them in cases of chronic phosphorus poisoning and in other enfeebled conditions of the body was in accordance with Pasteur's and the speaker's own previous statements that the healthy tissues have a power

of resisting and destroying organisms if accidentally introduced—a power which may be lost in certain diseased conditions. An illustration of this he had lately observed in some ferns, the fronds of which allowed the growth of fungi on their surface as long as the plants were enfeebled by the cold weather. Now, however, that it has become warmer, the ferns have become healthier, and able to prevent the development of any fungi on their fronds.

FRESH SPECIMEN OF ABSCESS OF THE LIVER.

Dr. NORMAN MOORE exhibited this specimen, showing a large abscess in the right lobe of the liver, following acute dysentery. The patient had recently returned from India, and the abscess had been opened during life, in St. Bartholomew's Hospital, but the patient gradually sank. The intestines showed extensive dysenteric ulceration.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 7.

W. S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

(*Continued from page 552.*)

PROFESSOR STEVENSON (of Aberdeen): I shall endeavour to show my appreciation of your kindness and the honour you have done us in calling upon us to take part in this debate early, by making the remarks which I have to make as briefly as possible. It has afforded me much pleasure, certainly, to be present on this occasion and to meet with so large a number of the representatives of midwifery, not only of the metropolis, but also of the provincial towns and the sister island; and I regret that I am the only one present who may be said to represent the Scotch school of midwifery. I will, however, still claim Dr. Matthews Duncan as a representative of the Scotch school, seeing that it is not so long since you stole him from us; and he made his great reputation in Scotland. However, I think it is but right that the Scotch school should be represented, seeing that it has special characteristics which I think have important bearings upon this discussion. We have one special characteristic which I think has this special bearing—that is, we have double the time of teaching which the other schools have. It has also been the characteristic of the Scotch school from the days of Burns and Hamilton, which take us back to the beginning of this century, to promulgate the doctrine that ineffectual contraction of the uterus should not be tolerated, that it does injury to the patient, and if you cannot help on labour you should arrest it. This has been fully borne out by the researches and teachings of Sir James Simpson, who, perhaps more than any other, established the doctrine that prolongation of labour is extremely injurious to the mother. Then, again, I cannot forget the fact that this discussion really originated in Scotland; the keynote of the discussion, at all events, so far as the early use of the forceps is concerned, was really sounded there. Although the general practitioners of Scotland may, perhaps, not use the forceps so frequently as Dr. Hamilton or Dr. Barker would recommend, yet I must say, from my acquaintance with the general practice of my brethren, I know, as a rule, they do use the forceps frequently and early, that they regard them as safe, and, in fact, that in practice they have followed out the principles so ably laid down by Dr. Barnes, that in the forceps we have the best means of counteracting the dangers attendant upon the protraction of labour or undue disproportion of time in labour. It has been argued against the position which we take up regarding the early use of the forceps—and remember, by the term "early use of the forceps," I mean the use of it whenever you are convinced that labour is becoming dangerous, not waiting to see if it will finish without danger, but whenever you are convinced of its becoming dangerous—I say the early use of the forceps has been objected to upon the ground that it is dangerous to give our authority for this practice in case it may become injurious in the hands of the inexperienced. But I have always felt that in my teaching I could not lower the principles which I promulgated to the level of the inexperienced, but rather should bring the inexperienced up to the level of the experienced. The frequency of the use of the forceps is quite a different thing from its early use, and when I hear of the forceps being used once in every five cases, or once in every eight or in every ten cases, I feel, not that they have been improperly used under the circumstances, but that the labour had not been properly attended to; that the powers of that patient had not been conserved properly, and that the attendant had failed in his previous management of the case. It is by the previous management of the cases that we can prevent the too frequent use of the forceps; it is by thoroughly educating our men to understand, not only what is the normal mechanism of labour, but what is the effect of the management of labour; and if we are to get what Dr. Barnes has happily termed a "scientific frontier" against the gross use of the forceps, it is by the thorough education of our men—not education merely in the use of the forceps, but education throughout the whole system of surgery—the science as well as the practice of midwifery. And now, to show the bearing of my observations upon the single question of the use of the forceps in the first stage of labour for the dilatation of the os. Here, I think, we have got into thorough confusion, from the want of relying upon what we have called the "scientific frontier." It is this. The size of the os is no criterion, to my mind, of the progress which the first stage of labour has made, or that the labour itself has made; and I think that those who oppose Dr. Johnston have not fairly represented him, and that he has placed himself at a disadvantage by taking the size of the os as the criterion when he will apply the forceps. That the size of the os is not the criterion which should be taken, is manifest enough from the fact that he says he would frequently begin to use it when it is only the size of an inch or thereabout. We have still to get a good deal of knowledge before we can decide this question. There are other conditions that are taking place besides that of the dilatation of the os; and it is but recently we have become acquainted with a most important change that is going on, and that is the elongation of the cervix. We hear men in discussion continually confounding cervix and os, as if they were the same terms. The os may still remain very small, and yet the cervix may be thinned and attenuated, and the patient may be in extreme danger. What we require to do is to know what are the changes that have taken place above the os—or, as I prefer to call it, the parturient ring; for by using that term you do not confound the mere os and the cervix. I say, what you require to know and determine is the changes taking place with reference to the cervix, and not with reference to the mere os. If we find that in cases there is evidence of the cervix being thinned and attenuated, then we are bound to use the forceps; and delay in the use of the forceps may end in danger of rupture of the uterus, and that is just the position that Dr. Johnston takes up. He has not, I think, ever promulgated the doctrine that you are to use the forceps in such cases as Dr. Kidd has mentioned, where the membranes are still there. The membranes, he tells us, must be long ruptured, the liquor amnii must be away for a considerable length of time. In addition to that, the head must not be coming down; he must find that the os is not dilating, because, the membranes being away, the head cannot be kept down to dilate it, and that is just the very condition in which the cervix uteri becomes thinned out and attenuated, and there is real danger. That, I consider, is the most important point with reference to this discussion to-night. I will conclude by just quoting another rule, in addition to that which Dr. Thorburn gave, a rule which I give my students to guide them in the use of the forceps—that is, to treat every patient in the same way as they would either do themselves, or have another treat their own wives.

Dr. NEWMAN (of Stamford): I have listened this evening, not only to the excellent paper which Dr. Barnes has read to us, but to the opinions of other gentlemen who have spoken from their special standpoint as teachers of obstetrics. If I have any claim to speak to you to-night, it can be in no capacity of that kind, but simply as a practitioner of obstetrics, and that, of late years, to a comparatively small extent. Still, the subject is one that has interested me for long, and if I seem to be somewhat egotistical in what I say, I hope you will pardon me, and take it to mean that, speaking, as I must, from a narrow point of view, I am still trying to convey to you the impressions that have, by slow degrees, formed themselves in my own mind. Some twenty-five years ago my student course ended, and the obstetric teacher to whom I owe so much was the late past-President of our Society. I need hardly say that his teaching throughout was, to say the least of it, not in the

direction of rashness. For a number of years his dicta held weight with me, and I am almost disposed to say now that they held weight with me almost too much. I remember well the first case of operative midwifery I saw was the case of an out-patient of St. Bartholomew's Hospital. Labour had gone on for some long time. The operation of craniotomy was performed, and some six or seven days afterwards I had the wretchedness of having to report the escape of a large slough and the subsequent formation of a large vesico-vaginal fistula. The years that have passed since then have rather tended to make me feel that in the forceps—and I am purposely for one moment ignoring the difference between high and low operations—we have an instrument of enormous value, and one also at the same time that admits of very much more extended use than perhaps a school of caution would be disposed to allow. A gentleman who is not a member of this Society, but who is a very great friend of my own, and enjoys far more practical opportunities than I have done or am likely to do, speaking on this matter a few days ago, said, "I think I could send you a note of the number of times per thousand in which I have had recourse to the forceps." His note ran thus: In the first thousand cases he used the forceps ten times; in the second thousand cases he used the forceps forty-eight times; and in the third thousand cases eighty times. I do not know that I have ever met with a more careful, more shrewd—I use the term advisedly—a more wise midwifery practitioner. Then, again, I think one should to-night, at all events, take full cognisance of this. I am glad it has been so fairly laid down that no formulæ can be supposed to do more than approximate to the truths that we have before us, because it is a matter of daily experience that the same thing is looked at by two men, or by many men, in many different ways—"*Quot homines, tot sententiæ.*" That is true enough with regard to matters of everyday life, and it is certainly true with regard to the matter of which we are now speaking; therefore, what to one man is comparative caution, would, to his neighbour differently situated, be looked upon as, at all events, a degree approaching to actual boldness or rashness. Then, again, I think one has markedly to bear this in mind. I do not know how you are to separate between the local result of an inquiry that nature will inflict in a prolonged case of labour, and the result that may follow—and no doubt often does follow—where the forceps are resorted to on account of immediate and urgent danger. One man may, with full truth, put down to the use of the instrument that which, after all, has been done before his instrument was even taken in hand. It would ill become me to attempt to criticise any statements that have been put before you; only let me again, reverting to my friend's statement, say that I think, as years grow upon us, personal caution certainly tends to increase, and that when one finds that men actively engaged in their profession in country districts make use of the forceps, conscientiously believing that they are doing the best thing for the poor women that come under their care, the consensus of opinion gathered from men of that sort must be allowed to have its weight. Remember that we are living in the country. Do not think I am going to indulge in anything like a eulogium of countrymen as compared with metropolitans for an instant, but we, at all events, are put in very different positions: we have to develope a degree of definite individuality that hardly belongs to a man who has some very much more experienced men than himself within easy call. Therefore, I simply say, in a matter of this kind, I thing the ill-defined conclusions at which many of us at work in the country certainly have arrived on the question before us—conclusions which agree thoroughly with the paper put before us this evening, and conclusions which I fancy each of us have for ourselves worked out—are, at all events, deserving of recognition and consideration as fitting evidence of the value of the instrument of which we have to speak, applied even more frequently and with less hesitation than the more cautious teaching of a few years past would lead one to adopt.

Dr. Malins (of Birmingham): As the area outside the metropolis appears to be in the ascendant this evening, perhaps you will allow me to add my testimony, in the first place, to the pleasure already expressed, with which we have listened to the paper read by Dr. Barnes, and to the simple and clear manner in which he has enunciated the subject for discussion. He remarked that the practice not only of individuals will vary, but also of localities; and thus, while the teaching of one school has been the preponderance of the operation of craniotomy, with all its dreadful elements, another school has advocated the use of the long forceps; and experience has shown that the latter has given the best result both to parents and offspring. It is a singular fact that during a pupilage of six years in a very populous district, with from 400 to 500 midwifery cases in the year, I never saw a case of craniotomy. During a residence of four years in Edinburgh, part of which time I was intern at the lying-in hospital, I never saw a case of craniotomy; and in my own practice of nine or ten years I have never witnessed a case of craniotomy; showing that the necessity for craniotomy does not exist in some parishes or in the minds of some individuals as it does in other places. Reverting to the frequency of the use of forceps in practice, probably no greater impetus was given to the discussions on this subject than by the paper written by Mr. Harper in the first volume of this Society's *Transactions* for 1860. In 1870 I read a paper before the Birmingham branch recording 806 cases where the forceps were used once in twenty-two cases, and during the past five years I find that I used the forceps once in every five cases, being influenced partly by the considerations of my practice, and partly by the teaching of others. In that calculation I have omitted cases that occurred in my hospital practice and in the practice of those with whom I have seen patients; and in my own practice pure and simple, during the last five years, I find I used the forceps once in five times with the best results. Dr. Kidd has stated that it was the teaching of his school that prolongation of the first stage of labour gave rise to no bad results. The opposite doctrine to this was very clearly demonstrated by Hamilton and Burns, of Edinburgh. Hamilton was instructed to say—and in that he was followed by Sir James Simpson—that the most disastrous results followed. You not only got wearying of the uterus and irregular contraction, but you had a greater proneness to hæmorrhage. This is a teaching which the experience of most men in active practice will fully bear out. With regard to the subject of the use of alternatives to the long forceps, with the head at or above the brim, he has shown that there are certain indications which perhaps point to the necessity of the use of the forceps; but there are other indications which point to the expediency of other operations. There are conditions of sudden catastrophes on the part of the mother in which delivery may be effected more safely and expeditiously than by the forceps—that is to say, by turning. I will not go so far as to advocate the practice of turning in natural labour, as advocated by some, and as practised by Dr. Begg, who turned most of the natural labours with which he came in contact, and with the best possible results; but what I do maintain is, that in some cases turning may be very much more readily effected than the use of the long forceps, where the head is above the brim. In certain cases of disproportion, from the large size of the head, and slight contraction of the brim, or from the condition where the arm is placed behind the head, in which no amount of direct force will overcome that difficulty, then it will be found that turning is a wiser and safer plan than the application of the long forceps. If there is the amount of truth which I assume there is in the statistics which Dr. Kidd has quoted to-night, that the mortality in high cases in primiparæ is so very large and dangerous—if the average mortality is assumed to be one in thirteen of the mothers, and one in three of the children—then, as an alternative to the use of the forceps for the high operation, the practice of turning affords a safer and better prospect to both mother and child. There are also conditions where it is not possible to have forceps in readiness, where it is not possible to have anæsthetics and other conditions at your command which should accompany the use of the forceps; therefore, in the majority of cases in which the high operation is used, I maintain that the alternative of turning is as efficient, as easy, and as safe a practice as the use of the forceps.

Dr. Alderson: It is with great diffidence I rise to address the Society, but I feel I have something to say, and that in justice to Dr. Barnes I ought to say it, for since I have read his book my practice has been very different and my life much happier. I have taken out the number of deaths I had when I scarcely used forceps at all, and when I used them rather frequently, and I was surprised at the number of still-births I had when I did not use the forceps. With regard to deaths, I had none in the cases where I used the forceps, and

the recovery of my patients has been very much greater. I would also like to observe, as regards the length of the labour, there is no doubt at all that the danger is according to the length in a very great number of cases, and I am quite sure when I was a student I erred from fear of the forceps. I was as much afraid to take the forceps in hand as I should have been to amputate a leg or thigh. In 1865 I attended 24 cases, used the forceps in 1, and had 2 still-births; in 1866 I attended 36 labours, did not use the forceps at all, and had 2 still-births; in 1867 I attended 56 labours, used the forceps in 2, and had 7 still-births; in 1868 I had 51 cases, did not use forceps at all, but had 3 still-births; in 1869, out of 92 cases I used the forceps only in 1, and had 5 still-births; in 1870, out of 96 cases I had 12 still-births, no forceps; in 1871 I had 82 cases, used forceps 4 times, and had 8 still-births. Therefore, during that period, in 437 cases I used the forceps 8 times, with 39 still-births. I may say I used ergot very frequently. In 1872 I attended 94 cases, used the forceps 10 times, and had 12 still-births; in 1873 I had 89 cases, used the forceps 5 times, with 2 still-births; in 1874, out of 114 cases I used the forceps 22 times, and had 3 still-births; in 1875, out of 96 cases I used the forceps 15 times, and had 4 still births; in 1876, out of 100 cases I used the forceps 18 times, and had only 2 still-births; in 1877, out of 78 cases I used the forceps 17 times, with only 2 still-births; in 1878, in 75 cases I used the forceps 12 times, and had only 1 still-birth. Therefore, in those seven years, in 636 cases the forceps was used 99 times, with 26 still-births. That will show you that the number of still-births is very few comparatively. If I were to exclude 1872, when I unfortunately had two or three puerperal cases, I am quite sure that there have been very many lives saved by the application of the forceps. I will not say that in one or two years I did not use them occasionally when they were not absolutely required, but I used them with perfect confidence, and I used them perhaps to acquire skill. I was quite certain I was doing no harm.

Mr. Worship (of Sevenoaks): I remember taking for two months Mr. Bailey's practice at Thetford, and I am very much surprised to hear, in the account Dr. Barnes gave, what a very few times he seems to have used forceps. I remember, when I went to the first case, I was only detained two hours; but the first question he put to me in the morning was, "How was it you were so long at that case last night?" I said I was not long. He said, "Had you the forceps with you?" I said "No"; and he told me ever afterwards to take the forceps, and certainly in the two months I was with him I applied more forceps than I have ever done in any ten years since, for every woman there expected to be delivered with the forceps. Every woman used to say, almost as soon as she was in labour, "If dear old Mr. Bailey were here, he would soon put me out of my trouble." The consequence was, I should think, in every other labour I attended I used forceps. It was his universal practice. I do not think he ever had a dose of ergot with him, or ever used it, but it was one continuous use of the forceps. His expression to me was, "Well, if the child is up a little higher, you have nothing to do but to push the forceps up a little higher; if it is low, you can very easily deliver with these forceps." Of late years I have never used them, although he gave me a pair. When I have required forceps I have used Denman's short forceps, but of late years I must say I have used the forceps very little. When assistance has been required, I have used the whalebone loop, and have had comparatively few cases of flooding. I believe that it is simply the tired uterus which floods, and not the precipitate labours, as we used to be taught in the books as being the cause of hæmorrhage.

On the motion of Dr. Edis, the discussion was adjourned till the next meeting on June 4.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 13.

John Erichsen, F.R.S., President, in the Chair.

Conclusion of Discussion on Croup and Diphtheria.

Dr. Barclay said the facts they had to go upon were very limited, and it was clear that there was no great consideration shown for the old disease called croup. For his own part, he decidedly objected to the term membranous laryngitis instead of croup. Perhaps, however, the time had not yet come when the two diseases, croup and diphtheria, could be thoroughly discussed. Books, at all events, made them out to be very different diseases. The one was merely an inflammation of the trachea, the other a blood disease which might be manifested anywhere. His own experience went back to a date when diphtheria was not known. Croup was well known, but rare. In the Report of the Committee there was hardly a case of croup, properly so called. In Edinburgh he had one kind of experience, in Paris another. There diphtheria, as it was called, was considered exceedingly infectious, but this seemed due to the bad management of the Paris hospitals. They had at that time never seen croup contagious in this country; but afterwards diphtheria was introduced, and the disease became infectious. Scarlatina simplex was always more or less prevalent, though it only now and again became epidemic. Diphtheria was not always accompanied with albuminous urine, nor was it always epidemic. He fell back on the old definition that croup was limited to the trachea. As for the returns of the Registrar-General, they were generally fallacious.

Dr. Heron, referring to cold as a cause of croup, discussed the bearing of the Registrar-General's Reports on the question. In 1875, when the average temperature was very low, there was less croup than there had been during the sixteen preceding years with the exception of four, and the number of cases which occurred during the last exceptionally severe winter was less than the average in the preceding ten. The facts would be more striking were allowance made for increase of population, and they showed that cold alone was not a direct cause of croup.

Sir William Jenner, on rising, said he would read a passage from a lecture delivered by him, and published in 1875, about which there had been some misconception. It ran as follows:—"My opinion has undergone some modifications, and I am inclined now to the belief that there is no such disease as simple idiopathic membranous inflammation of the larynx. I am inclined, I say, to this belief. I am not sure that it is true, but as I formerly thought the weight of evidence was in favour of their non-identity, I am now inclined, from my further experience, to think that the two diseases are really identical—that the so-called croup is really diphtheria." There he had said that he *inclined to the view* of their identity; he did not declare it absolutely, for he had not sufficient grounds to go upon to make a statement of his certainty—such, for instance, as he had of the diversity of scarlatina and measles. He had looked to the Report with the hope, but hardly with the expectation, of getting his doubts solved, for he did not think questions such as those sent round were very likely to elicit truth. The facts they would get would be so much coloured by men's opinions or prejudices as to be little reliable. His suspicions had turned out to be true; and, that being so, he thought the Committee had done well in coming to no absolute conclusions. Yet even here men differed: Mr. Parker could find no exact conclusions; Mr. Holmes thought they were as definite as could be. Such differences reminded him of the endless disputes as to whether Hamlet was mad or not. The fact was that the Committee had not the data to enable them to come to any final conclusions; but the Report was a clear reflex of the views which prevailed in their own minds, and would serve well as a starting-point for the future. Now, he was told that croup and diphtheria could not be the same disease, because there was a sort of general consensus in the profession that they were two distinct maladies. But mere strength or universality did not prove the truth of an opinion. Was it not so with witchcraft? Nor should it be forgotten that it was just as strongly held at one time in the profession that measles and scarlet fever were one and the same. But was there any such general agreement? On the contrary, he thought there was the greatest diversity of opinion. He was surprised to hear Dr. Barclay say that in croup the membrane was limited to the trachea; so that, if it extended into the larynx, it would be diphtheria. He would ask Dr. Barclay, or anyone, if they had made a post-mortem during the last thirty years, and found membrane limited to the trachea only? Then some said that croup is a sthenic, and diphtheria an asthenic disease. This was utterly baseless and intangible, for some cases of membranous laryngitis

were asthenic; and diphtheria might be either sthenic or asthenic. He could find there no rest for the sole of his foot. As to frequency, one physician to a children's hospital was constantly seeing croup; another, to the same institution, never saw croup, but only diphtheria. Turning to the Report, he found an Edinburgh physician asserting, with regard to the false membrane, that in diphtheria it always spreads upwards, in croup downwards, and that in diphtheria it could be destroyed by Condy's fluid. Again, as regards the pathology of the membrane, he found Dr. Squire asserting that this differed in the two diseases as to chemical and physiological characters; but, on the other hand, he found one of our soundest and best pathologists, Dr. Wilks, saying that, after long and careful consideration of the subject, he could find absolutely no distinction between the two. Turning next to the clinical aspects of the case, Dr. Hilton Fagge stated, in reference to his cases, that in no instance was membranous laryngitis the result of contagion, nor did it ever spread; but his own cases proved the contrary. Thus there was one where scarlatina had been in the house, where the child's sister had suffered from membranous laryngitis, had been operated on, and returned home before this child was taken ill. Contagion could not be excluded here. Among Dr. Dickinson's cases, too, there was one, who was operated on for membranous laryngitis, and from whom the nurse caught diphtheria. There was, in fact, more than one cause why membranous laryngitis should be less contagious than the pharyngeal form of diphtheria —one had regard to the difficulty of coughing, and the scattering of the false membrane; the other to the fact that a child actually ill, and in the early stage of diphtheria, may be running about, as in the lamentable instance at Darmstadt, and spreading the affection by kissing its brothers and sisters. But as soon as the larynx is affected, this is no longer possible, and the child is secluded. This could not happen when the larynx was primarily affected. With regard to the albumen in the urine, this was not to be relied upon, inasmuch as it was not often sought. A blind man might say there were no people in the room when it was full. But Dr. Gee's cases told a different tale. In one the albumen did not appear until the child had been six days in the hospital; and many of Dr. Fagge's had died before that time. The same remark would apply to the false membrane. Too often the search for both was confided to clinical clerks not over careful; and when it was remembered how difficult it was to examine the throats of children, it was impossible to place much reliance on such evidence. He thought that the value of the evidence from enlarged glands had been greatly over-rated; for from their anatomical distribution it was quite possible to have the deep-seated glands enlarged without any important external manifestation. Thus it came about that neither by the false membrane nor the albuminuria, nor their relative degree of contagion, nor from the enlarged glands, could any line of demarcation be drawn between the two. Thus too said Dr. Wilks; whilst Drs. Fagge and Pye-Smith, belonging to the same hospital, held them to be distinct. There was, in fact, no agreement, either in the profession generally, or among those who had specially studied these diseases; and he (Sir William) could find no satisfactory ground of belief except that which asserted that the two diseases were one and the same.

Dr. Wilks said: I had not intended to speak on the present question, as I had already given answers to the queries of the Committee, but, after the speeches which have been made by Dr. Johnson and Mr. Hutchinson, I feel bound to offer some explanation of the grounds on which these answers were given, for the whole complexion of the subject seems to have now altered. The Society may remember the origin of the inquiry: how for some years eminent men in the profession had maintained that membranous laryngitis was identical with diphtheria; that is, that it did not arise *de novo*, was not idiopathic, but had an extraneous source. In this sense the inquiry of the Committee was framed, the words being—"The object of the inquiry may be briefly defined as the determination of the disputed question whether there is such a disease as idiopathic membranous croup—i.e., whether membranous laryngitis exists independently of the diphtheritic poison," and, in order to be sure of the nature of the question I was about to answer, I propounded it again in these words: "Is there such a thing as an idiopathic membranous inflammation of the air-passages? This has been unanimously believed up to the present time, but now is denied, the declaration being that a membranous inflammation of the air-passages is always due to the influence of an external specific agency." I now feel that I am wrong in giving so determinate a meaning to the inquiry, but should have first asked the Committee what they intended by the words "diphtheritic," "idiopathic," and "specific." For my own part, I always regarded a specific disease as one which owned a definite cause or poison as its origin. If, for example, a question had arisen as to whether small-pox was specific or not, I should have used the same test as I propose here in reference to membranous laryngitis—see if it could be constantly arising in isolated places where no possibility of contagion from a similar case could have occurred; if so, I should have regarded it as idiopathic. I do not necessarily intend by the word "idiopathic" to exclude external influences, for cirrhosis of the liver is usually styled an idiopathic disease, although its cause may be found in alcohol, or various gouty conditions in port wine. In this sense diphtheria would be regarded as an idiopathic rather than as a specific disease—that is, not zymotic as the exanthemata are. I agree very much with the observations of Mr. Hutchinson, whose speech I consider most argumentative and conclusive, that diphtheria may have many forms and degrees; that an epidemic sore throat may prevail, be contagious, and yet mild in character, but which undoubtedly has its origin in a marked diphtheritic form. The disease may therefore be likened to erysipelas, pyæmia, puerperal fever, and analogous septic diseases. Now, it seems to me that Dr. Johnson held more or less this view, and I was agreeably disappointed to find that he really maintained the idiopathic rather than the true specific or zymotic theory. I had always regarded Dr. Johnson as the champion of the specific nature of membranous croup, but I find from his speech that I was mistaken. Dr. Johnson described the case of a boy operated on for phimosis, and who had a membrane form on the wound, and this he attributed not to contagion, but to bad drainage of the house. In another case of membranous laryngitis he makes no mention of contagion, but finds in the bath-room a defective pipe. He therefore concludes that diphtheria and membranous laryngitis can arise *de novo* from defective drainage. It appears, then, that the difference of opinion between Dr. Johnson and those who hold to the idiopathic view is not so very great. If Dr. Johnson is supposed to represent those who hold to the diphtheritic nature of membranous croup, the question is much simplified, and really seems to be this: What are the circumstances which determine the production of a membranous laryngitis rather than a catarrhal laryngitis? and are they the same as those which produce diphtheria in its best recognised form? The difference of opinion lies in this—the one says ordinary cold may produce the exudation; the other declares that some other pernicious influence is necessary. We can see how a reconciliation can now be approached, and how evident it must be that the true specific origin of membranous laryngitis must now be given up. In spite of what has been said about the indecisive conclusion of the Committee, they say this—"There is strong evidence that diphtheria may arise *de novo*," and of course they include in this membranous laryngitis. I use the term membranous laryngitis advisedly, for the old term, cynanche trachealis, was given in olden times when the ejection of a membranous cast was supposed to come from the trachea. I myself have always found the larynx involved together with the trachea—indeed, the symptoms of croup are due to the closure of the glottis. As regards the use of the term croup, it is agreed on by all that it has been used to denote both the simple catarrhal laryngitis and the membranous laryngitis. It is a term indicative of a sudden closure of the glottis from inflammation, and is used exclusively in a clinical sense. I always know what is intended when a medical man sends for me to see a case of croup, and so go prepared for all contingencies. Whether the closure is due to simple inflammation or to a membrane is often quite unknown to us. Believing that all medical terms should be clinical, and not pathological, I like the word croup, but I should have no objection to adopt another, but it must be clinical, and founded on symptoms, and equally comprehensive with the word we discard.

Dr. Pavy thought that considerable confusion arose from the use of the terms croup and diphtheria—the one being a clinical, the other a pathological expression. He would in his argument discard both. Thus, as the result of his experience he recognised a class of cases (A) which occur both in children and adults. There was an exudation about all

parts of the throat, and it might be elsewhere, and the greater its amount the greater the risk to life. The glands were enlarged, and he laid great stress on that point, just as in mumps. The urine was often albuminous, and contained casts, as in blood-poisoning. And there were often paralytic symptoms during convalescence. Recently they had seen such cases at Guy's; they were rapidly-spreading and very fatal. There was another group—say X; these occurred mostly among young children. There was difficulty of breathing, and sometimes proof of false membrane. Here it was possible to use blisters without the formation of false membrane on them. The glands were not enlarged, and though the urine might be albuminous from obstructed breathing, it was not a marked symptom. Paralytic symptoms did not occur, and it was not considered infectious. Take these all in all, they surely denoted different diseases; and there was no reason to think that the formation of a false membrane must invariably depend on a single cause. The importance of distinguishing between the membrane arising from a simple local inflammation, and that originating in a general morbid process, was great, for whereas when the latter occurred in a general epidemic we were often helpless in dealing with a single case, yet we might do much to limit its ravages and prevent its spread.

Dr. FITZPATRICK desired further to elucidate a case which he had contributed to the Report. The patient was a child, aged two years and a half, in what seemed excellent hygienic surroundings. The child had been exposed to cold, and became hoarse and croupy, but with no special affection of the throat. The breathing became worse, and tracheotomy was performed. The child lived for some days, and false membrane was expelled. The urine was albuminous. He thought at first the affection was due to the cold, but on tracing out its causation he found that the water-supply in the nursery was derived from a cistern liable to be tainted with sewer-gas. He had tried to discover some means of distinguishing the two maladies, but had found none; probably there were none. The term croup he strongly objected to.

Dr. MATTHEWS DUNCAN said that if the disease existed in the epidemic form, that would probably help to clear up the difficulty; but this epidemicity had never been proved,—it had only been assumed. The same assumption had been made as regards erysipelas and puerperal fever, though there was no evidence to that effect, but quite the contrary. The term epidemic was only a method of speech.

Dr. THORNE THORNE had remarked that in several epidemics which he had been called upon to investigate the earlier cases had been called croup, the later diphtheria. In the early and simple cases the origin of which was not quite clear, they were content to call them croup; but when the disease began to spread, and the origin could be more distinctly traced to contagion, it was called diphtheria. In many outbreaks he was quite sure the earlier cases were not due to pre-existing cases, though there might be throughout the district a tendency to sore throat; later came the spreading and infectious cases; later still, exudation was noted; and later still, perhaps in one village or district, occurred an outbreak of true diphtheria. Apparently the infectious character became thus gradually developed, but croup was always the earlier, never the later form of the malady. Diphtheria, then, seemed to have a history and a pedigree in which, probably, croup was an intermediate stage. Probably, too, the poison of diphtheria was not yet of that stable character seen in small-pox, though if unchecked it might in course of time acquire this stability. There was a tendency just now for it to revert to a milder character, but it would depend on the sanitary measures adopted, whether it could be stamped out or not.

Dr. ANDREWS said he was unconvinced alike by the report and by the debate that croup and diphtheria were one and the same. Unfortunately, he was not in the position of some modern scientific athletes, who could divest themselves of every particle of belief before proceeding to the consideration of a new problem. For his own part, he confessed he was not up to this rope trick. He could not strip himself of the knowledge which had been impressed upon him by honoured teachers. He had looked to the Report to get some distinct views on the subject, but the answer therein contained conveyed no definite knowledge. It was a perfect logical puzzle. Croup, or say membranous laryngitis, may be non-diphtheritic; or, again, membranous laryngitis or diphtheria may be diphtheritic; but there was no absolute certainty. The relationship of the seasons of the year to the two had not been made clear, though the prevalence of membranous laryngitis and croup was clearly opposite as regards those. Even Bretonneau himself had recognised a sporadic membranous laryngitis which was not diphtheritic.

Dr. C. HILTON FAGGE said: With regard to the opinion of the Committee on the question at issue, it is clear that the Report recognises the existence of a membranous croup apart from diphtheria. But if it be asked what is the nature of the cases of membranous laryngitis met with in practice in London, I believe that the majority of the Committee were in favour of the view that they are generally diphtheritic. however, hold the opposite opinion. It has been remarked that the conception of diphtheria as not being essentially a specific disease would deprive the debate of all its real importance; and, no doubt, the Fellows of this Society would never have come here on three successive evenings to discuss whether membranous croup is always, or generally, diphtheria, unless they thought that diphtheria itself was a definite malady. But even if Mr. Hutchinson's and Dr. Johnson's views are correct, it would still be a question whether membranous croup bears as close a relation to diphtheria as it does to non-membranous croup. Now, as to the histological character of the membranes, I quite believe that no distinction can be found. But then it seems to me of great importance to notice that in the very same case of diphtheria, as Rindfleisch has pointed out, the membranes in different positions have a different structure. This does not look as if histological characters would furnish the grounds on which the pathological relations of these affections are to be determined. Again, general pathology surely lends no support to the idea that differences in the nature of inflammatory products should indicate differences between one disease and another. No one thinks that an adhesive pleurisy is a different disease from a suppurative pleurisy. It is understood that such differences depend rather upon varieties in the intensity of the inflammation. And if a membranous laryngitis is really a distinct affection from one which is not membranous, we should certainly expect that the membranous character should be maintained all through the air-passages in the same case. But it is notorious that this is not so. I suppose that there is never a case of membranous croup, whether diphtheritic or not, in which the lymph does not shade off into pus in the smallest tubes; and there are all gradations in the amounts of these two substances, until (as I have myself seen) one finds only a minute flake of lymph at a single spot, embedded in purulent exudation. And, corresponding with these differences, we have differences in the fatality of membranous and of non-membranous croup—which, I think, are precisely what we should expect if these two affections are really varieties of a single morbid process. Dr. Johnson spoke of having seen two cases of fatal croup in which there was no membrane. But Dr. Gee and I have shown that, at the Children's Hospital and at Guy's Hospital, such cases are very rare. The presence of membrane is often discovered in the post-mortem room for the first time; and in cases which recover I think it is very likely to be overlooked when it is present in small quantity. Considering how serious an obstacle to the entrance of air must be offered by a large piece of membrane in the larynx and trachea, it is not wonderful that the death-rate of the disease is greatly modified by it. With regard to Sir William Jenner's criticism of my cases, I am ready to admit that he seems to have hit a blot in my table, and that the case to which he referred was wrongly placed among those of membranous croup in which there was no evidence of a relation to diphtheria. But I cannot allow the force of Mr. Parker's remark as to the frequency of diphtheria in the wards of Guy's Hospital; the fact is that the cases which he cited as having arisen there were due to definite contagion from previous cases. No doubt there is a great deal in what Sir William Jenner said as to the less liability to the spread of contagion *from* cases of laryngeal, as compared with pharyngeal, diphtheria; but my point is that when diphtheria arises by contagion one does not find it passing *to* the larynx, apart from the pharynx, except in very rare instances. And the cases which I collected were chiefly intended to show the relative frequency of the two forms of disease in London, and how much more frequent membranous croup is than would have been expected according to the statements of those who have

investigated epidemics of diphtheria. Dr. Johnson has implied that Bretonneau first described a stridulous angina; but, as is pointed out in the Report, this affection under the name of spurious croup was well known to Cheyne and other Scotch (and English) physicians of the end of the last century; and if Cheyne confounded it with true croup in his writings, it is certain that he did so deliberately. Another point is the great discrepancy that exists between different observers as to the mortality of this form of disease. Trousseau said he had seen only three cases of fatal stridulous angina; and one of them, of which he gives details, appears to me of a very doubtful nature. But in the last edition of Sir Thomas Watson's Lectures, the whole clinical description which was before applied to membranous croup is, I think, transferred *not* to diphtheria (as might have been expected), but to the non-membranous form of the disease, which is now described as often fatal in twenty-four or forty-eight hours. I infer from this that those who in theory class all membranous croup as diphtheria, would in practice (where autopsies are exceptional) set down as examples of non-membranous croup a large number of fatal cases in reality attended with the formation of membranes. May it not be, after all, that there are differences in the frequency of croup, apart from diphtheria, in different countries; and that in bowing to the authority of French and German writers we may be failing to interpret properly the cases which come under our observation here?

Dr. Greenfield said that as Secretary to the Committee he felt obliged to refer to some points which had arisen in the course of the debate, although at so late a period he would not further weary the Society by any general discussion, or do more than reply very briefly to some objections. He thought that one outcome of the debate must be to show that the task before the Committee was one of no ordinary difficulty. They had been blamed by some for not arriving at absolute conclusions. But he ventured to think that if an equal number of those who had spoken in the debate had formed the Committee they would have had equal difficulty in arriving at absolute conclusions. The Committee had endeavoured to place clearly before the Society the facts which they had been able to gather, to point out the difficulties which beset the inquiry, and to draw only such conclusions as were deducible from the facts. The question they set themselves to solve was, whether membranous laryngitis exists independently of diphtheria. More than one speaker had blamed them for not answering the question absolutely in the negative—that is, asserting that no membranous laryngitis exists apart from diphtheria. Now, putting on one side the fact that they had distinct evidence that membranous laryngitis did exist apart from ordinary epidemic diphtheria, he would ask whether it was reasonable to expect that any eight men would be found rash enough to assert a universal negative. It might be easy for one or two individuals to do so, but the Committee could not be expected to do it. The Committee were fully conscious of the defects in their work, and as their only desire was for truth, they would not complain of any fair criticism or objection. Some of the criticisms made by Mr. Parker seemed to him to be mere restatements of facts fully stated in the Report; others were grounded on a misapprehension of the terms employed, which he thought a more careful reading of the Report would have dispelled. Some of these errors had already been pointed out by other speakers, and he briefly mentioned others. Passing next to some of the questions raised in the debate, Dr. Greenfield said that the Committee had endeavoured to get some information as to the production of false membranes in the air-passages by the injection of ammonia (mentioned by Dr. Wilson Fox), and to obtain such membranes for examination and comparison, but had been unable to do so. But the careful experiments of Heinrich Mayer (*Archiv der Heilkunde*, 1873) led Dr. Greenfield to believe that the case was not so simple as Dr. Fox's remarks would suggest. As to the cast of membrane ejected in Dr. Reid's case of eau-de-Cologne inhalation, it had been carefully examined and compared with specimens from numerous cases of membranous laryngitis, with the result that it was found not to be like any of them, and could therefore not be used as an illustration of ordinary idiopathic membranous laryngitis. For this reason also, and others which he mentioned, Dr. Johnson's suggestion that sewer-gas poisoning or diphtheria were the cause might be discarded as altogether groundless. In the specimen referred to by Dr. Sansom, of membrane from a case of idiopathic membranous croup (which by an oversight had not been mentioned in the Report), there was nothing to distinguish it from coagulated muco-pus under the microscope. Dr. Poore had also kindly allowed him to examine the membrane from the case he narrated, which was expectorated after exposure to cold wind, and he had little doubt from the examination that the membrane was hydatid. It precisely resembled that expectorated in a case of hydatid of the lung with very similar symptoms which he had recorded in the *Transactions of the Clinical Society* for 1877. Turning to the objections which had been made to the mode of inquiry, he said it had been thought that the experience and observation of the Fellows of the Society would furnish sufficient information, and the first circular of queries was therefore issued. The replies which had been given were of considerable value, and although some thought they had laid too much stress upon them, and others too little, they would have been wanting in due respect to the Fellows if they had not made use of them. Many points, however, were left untouched by those replies, and other means were needed to collect sufficient information. And, speaking as an individual, he must confess that it seemed to him that many of the replies were mere opinions, or, as Sir W. Jenner had said, the expression of facts viewed through the medium of opinions. Even with the further facts they collected, the Committee did not feel able to come to absolute conclusions on the evidence before them. It had been said that they ought to have taken up the subject of paralytic sequelæ as a possible means of distinction between diphtheritic and non-diphtheritic cases. But not a single case of paralysis of any form following membranous laryngitis only had been reported to them. He ventured to think that too much stress had been laid on the question of paralysis following membranous laryngitis. Even in ordinary pharyngeal diphtheria the occurrence of paralysis is very variable in different epidemics, and the statistics of its occurrence most divergent. The highest estimate from any large number of cases only gave one in twelve as the proportional frequency of all the forms of paralysis taken together. Now, the proportion of recoveries in cases of membranous laryngitis of all forms did not reach more than one in ten, as judged by statistics of a large number of cases. So that, roughly speaking, in only about one in 120 cases of diphtheritic membranous laryngitis could this sequela possibly be observed. And if of these we took only the cases in which no false membrane existed elsewhere than in the larynx, we should reduce the number to considerably less. It was therefore obvious that this sequela of paralysis could be of no value in distinguishing a certain class of cases until an enormous number of instances had been collected, nor would it then be of much use in any individual case. But although the Committee could not arrive at more than somewhat indefinite conclusions, and state those they thought fairly deducible from the facts, without making dogmatic assertions, they hoped that great good might result from the further investigation of the many difficult and embarrassing points which they had mentioned. Many of these had been referred to in the valuable discussion elicited. The Committee had been quite conscious of them, but had not gone into them fully, as they were only side issues. Some, however, were mentioned. Thus, the point referred to by Mr. Hutchinson, Dr. Thorne, and others—that of the specificity of diphtheria—was mentioned at the outset (page 4). They said: "One of the most important of these points is the anomalous position which diphtheria holds in the rank of zymotic diseases, and the difficulty of defining precisely what is and what is not diphtheria. It is at present an undecided question whether diphtheria is as distinct and definite a disease as scarlet fever or small-pox, or whether its poison is not readily generated under conditions of foul air and decomposing sewage. "The position of diphtheria is even more undecided than that of enteric fever, and there is still stronger evidence that it may be originated *de novo*, and produce cases which are contagious and give rise to epidemics." And that this was really at the root of some of the diverse opinions was shown by the remarks of Dr. Johnson and Dr. Wilks. He believed that the line of investigation introduced and carried out with such ability by Dr. Thorne Thorne would lead to a great modification of our views on the entire subject of diphtheria. The Committee had also pointed out the differ-

ences obtaining in the swellings of lymphatic glands in pharyngeal and laryngeal cases, and also the difficulty in ascertaining the presence of false membrane in the fauces in children. Dr. Greenfield concluded by saying that personally he felt that the question could not be absolutely settled with our present knowledge, but he thought that the Committee had contributed something towards its final solution. He had examined microscopically in about twenty instances the false membrane from cases with the most various supposed etiology and symptoms, and had come to the conclusion that, whether we have regard to the membrane itself, the parts subjacent, or the presence or absence of micrococci, there is no certain line of demarcation to be drawn on histological grounds between any classes of cases. There seemed to him to be a strong balance of clinical evidence that the large majority of cases ordinarily met with in practice are due to one set of causes, which were also concerned in the production of diphtheria; but he held also to the view expressed by Dr. Wilks in his reply, that false membrane might be produced in the larynx by other causes under rare conditions.

Dr. Dickinson's interesting and important remarks as Chairman of the Committee, and which closed the debate, were given last week. The length to which this discussion has extended will necessitate an extra meeting of the Society in June.

NEW INVENTIONS AND IMPROVEMENTS.

TROMMER'S MALT EXTRACTS.

The extract of malt prepared by the "Trommer Extract of Malt Company" has, both in America and in this country, a well-established reputation as a pure and reliable preparation, and this practical reputation is justified by Professor Redwood's report on the extract. He speaks of it as "evidently prepared with great care and judgment, as it retains the property of acting on amylaceous bodies, as diastase does, while the extract itself bears long keeping without change." In addition to the simple extract the Company now prepare several medicated forms of it, as—an extract of malt with cod-liver oil; an extract with hypophosphites; and a "ferrated" extract, each dose of which contains four grains of pyrophosphate of iron. Messrs. Lynch and Co., 171A, Aldersgate-street, E.C., are the British agents for the preparations of the "Trommer Extract of Malt Company."

LOEFLUND'S EXTRACT OF MALT.

This also appears to be a good and well-prepared extract. It is of a light brown colour, and satisfactory taste and consistence. It may be obtained as a pure extract, or in combination with cod-liver oil, from Ed. Loeflund, 11, Jewin-crescent, Aldersgate-street, E.C.

THE WILHELMS QUELLE NATURAL MINERAL WATER.

We have received from Messrs. Behr, Tweedie, and Co., 7, Billiter-square, E.C., samples of a new dietetic water, which deserves to become very popular. It is an alkaline water well charged with natural carbonic acid gas; and the comparatively small proportion of alkali that it contains makes it a very safe as well as useful dietetic water for daily drinking. It is pure, bright, sparkling, and very pleasant; and it mixes admirably well with spirits, wines, or milk.

British Medical Temperance Association.—We have been requested to state that the anniversary arrangements of the British Medical Temperance Association on the 30th inst., at the rooms of the Medical Society, Chandos-street, include an inaugural address from the President-elect, Dr. B. W. Richardson. The address will treat of the relation of the medical profession to the temperance movement. The members and friends dine together (ladies being invited) in the evening at the Langham Hotel, Dr. Richardson in the chair. "A variety of non-alcoholic beverages will be provided."

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst., viz.:—

Adolphus, T. F. P., L.S.A., Lyndhurst-road, student of King's College Hospital.
Baillie, J. H. J., L.R.C.P. Ed., Old Bond-st., of St. Bartholomew's Hospital.
Baillie, R. H., L.R.C.P. Ed., Old Bond-st., of St. Bartholomew's Hospital.
Baldwin, Frederick B. J., L.S.A., Warwick, of Guy's Hospital.
Barron, H. G., L.R.C.P. Lond., Southport, of University College Hospital.
Callender, John H., L.S.A., North Shields, of the Newcastle School.
Chambers, Alfred E., Bolton, of the Manchester School.
Cox, Frederick A., Dean-street, Park-lane, of St. Mary's Hospital.
Crisp, Thomas, L.S.A., Beaufort-street, Chelsea, of St. Thomas's Hospital.
Davies, M., B.A. Aberd., Llangwynyfon, Cardigan, of the London Hospital.
Dearden, Richard J., Douglas, Isle of Man, of the Manchester School.
Dunn, W., B.A. Cantab., L.S.A., Gordon-square, of St. George's Hospital.
Dyson, Thomas S., L.S.A., Sheffield, of St. Bartholomew's Hospital.
Evans, Arthur L., Wrexham, of University College Hospital.
Hine, Harry, Nottingham, of Guy's Hospital.
Hoskin, Theophilus, Calstock, Cornwall, of University College Hospital.
Mantle, Alfred, L.S.A., Stourport, Worcester, of the London Hospital.
Mumby, B. H., M.B. Aberd., Gosport, of University College Hospital.
Noble, James B., Newcastle-on-Tyne, of the Newcastle School.
Palmer, William P., L.S.A., Ilminster, of St. Bartholomew's Hospital.
Penny, Edward, L.S.A., Blandford, of Guy's Hospital.
Poland, John, L.R.C.P. Edin., Blackheath, of Guy's Hospital.
Rice, George, L.R.C.P. Edin., Derby, of the Edinburgh School.
Spurgin, Thomas, L.R.C.P. Edin., Henrietta-street, W., of Guy's Hospital.

Apothecaries' Hall, London.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 15:—

Campbell, Robert Huntley, Trumpington, Cambridge.
Corke, Cecil Aloysius, Pontesbury, Salop.
Newsholme, Arthur, Vincent-square, Westminster.
Palmer, William Pitt, Ashill, Ilminster.
Wainwright, A. S. Rathbone, Ixworth, Bury St. Edmunds.
Watson, Frank Spence, Southampton-row, W.C.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Eminson, Thomas B. F., St. Mary's Hospital.
Parette, James, Charing-cross Hospital.
Pook, William John, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

Leahy, Albert, M.D., M.R.C.S. Eng., L.S.A. Lond.—Surgical Registrar to Charing-cross Hospital, *vice* Colquhoun, resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

Admiralty.—Staff-Surgeon Thomas Alexander O'Flaherty, M.D., has been placed on the Retired List from May 12.

War Office.—Surgeon-Major Benjamin Tydd, to be Deputy Surgeon-General, *vice* Edward Baily Tuson, placed on retired pay; Surgeon-Major Alexander Maclean retires upon half-pay; Surgeon-Major Robert Owen Hayden retires upon temporary half-pay.

BIRTHS.

Finlay.—On May 14, at 21, Montagu-street, Portman-square, W., the wife of David W. Finlay, M.D., of a son.

Grieve.—On April 5, at Fort Cange, Berbice, the wife of Robert Grieve, M.D., of a son.

Hall.—On May 15, at Laurel Villa, Victoria-road, Surbiton, the wife of Edgar A. Hall, M.B., C.M. Edin., of a son.

Hughes.—On May 15, at College Villa, Brighton, the wife of Richard Hughes, L.R.C.P., Edin., M.R.C.S. Eng., of a son.

Lloyd.—On May 14, at Brooke-street, Kennington, the wife of Robert H. Lloyd, M.D., of a son.

Pittock.—On May 11, at 28, Cecil-square, Margate, the wife of G. M. Pittock, M.B. Lond., of a son.

Stocks.—On May 17, at 421, Wandsworth-road, the wife of Frederick Stocks, M.R.C.S., of a daughter.

Thomas.—On May 14, at Llandrindod Wells, Radnorshire, the wife of Robert T. Thomas, L.R.C.P. Lond., of a son.

Wall.—On May 17, at 46, Norfolk-terrace, Bayswater, the wife of A. Wall, L.R.C.P. Edin., of a son.

MARRIAGES.

Clarke—Ellis.—On April 15, at Graaf Reinet, South Africa, Thomas Furze Clarke, M.R.C.S.E., etc., of Somerset East, South Africa, to Fanny Maria, eldest daughter of Wm. Henry Ellis, of Stratford, Essex.

Hadlow—Aston.—On May 15, at Bloomsbury, Henry Hadlow, M.R.C.S. Eng., Staff-Surgeon R.N., to Ellen Charlotte, youngest daughter of the late Benjamin Richard Aston, Esq.

MILLAR—PRANCE.—On May 20, at Hampstead, N.W., Henry Edward Millar, second son of the late William Millar, of South Heath, Hampstead, to Ada Margaret, second daughter of Robert Rooke Prance, M.D., of Rookeslee, Hampstead.

SCANLAN—HEYDEMANN.—On May 15, at Bradford, James O'Hara Scanlan, M.D., A.M.D. (late of 14th Regt.), to Marie C. P., daughter of N. H. Heydemann, Esq., Consul of the German Empire.

DEATHS.

BROOKE, CHARLES, F.R.C.S. Eng., F.R.S., of 16, Fitzroy-square, London, at Weymouth, on May 17, in his 75th year.

CREAGH, DANIEL, eldest son of Surgeon-Major Wm. Creagh, L.R.C.S.I., at Nowahera, India, on April 16, aged 17 months.

DRURY, ELIZABETH, wife of Wm. V. Drury, M.D., late of 7, Harley-street, W., at Lingmoor Dean Park, Bournemouth, on May 17.

NICOLL, CHARLES RICHARD, M.D., F.R.C.S., Resident Medical Officer to the Charterhouse, at the Charterhouse, on May 14, aged 64.

TAYLOR, Sir ALEXANDER, M.D., of Pau, Basses Pyrénées, at 5, Gayton-crescent, Hampstead, on May 18.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BOROUGH OF PORTSMOUTH LUNATIC ASYLUM.—Medical Superintendent and Assistant Medical Officer. Candidates for the above appointments must send in their applications, with particulars of age, etc., accompanied by testimonials of recent date, to John Howard, Town Clerk, on or before May 26.

RADCLIFFE INFIRMARY, OXFORD.—Physician. Candidates must be legally qualified to practise as physicians in England. Applications, with testimonials, to the Secretary, on or before June 6.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Boston Union.—Mr. P. Maxwell has resigned the Boston District; area 5672; population 15,525; salary £55 per annum. Also the Workhouse; salary £60 per annum.

Burton-upon-Trent Union.—Mr. G. Lowe has resigned the Rosleston District; area 3519; population 678; salary £10 per annum.

Carlisle Union.—The Caldewgate District is vacant; area 3880; population 11,365; salary £100 per annum.

Manchester Township.—Mr. Wm. F. O'Grady has resigned the office of Resident Assistant Medical Officer at the Workhouse Hospital; salary £140 per annum.

Scarborough Union.—The Sherburn District is vacant; area 13,288; population 1443; salary £40 per annum.

Truro Union.—Mr. E. Whitworth has resigned the St. Agnes District; area 14,600; population 7925; salary £35 per annum.

Wolverhampton Union.—Mr. A. Hands has resigned the Wednesfield District; area 2065; population 8000; salary £80 per annum.

APPOINTMENTS.

Lincoln Union.—Henry Gilbert, M.R.C.S., L.S.A., to the Sixth District.

Margate.—Mr. Sidney Harvey as Analyst for the Borough.

Oldham Union.—James H. Fletcher, L.F.P.& S. Glasg., L.R.C.P. Edin., to the Sixth District.

Peterborough Union.—George S. Payne, M.R.C.S., L.S.A., to the Farcet District.

Ticehurst Union.—Frederick H. Corbyn, M.R.C.S. Eng., L.R.C.P. Edin., to the Robertsbridge District.

CONSUMPTION OF BEER IN PARIS.—The consumption of beer in Paris has assumed such large proportions that its home manufacture is quite insufficient and has to be supplied by foreign beers which are incontestably superior. The total annual consumption exceeds 100 million litres. The modern world, as divided into two groups, the Latin and the Saxon, has exhibited different tastes as regards beer, the Latin preferring wine, and the Saxon beer—agricultural conditions having had much to do with these differences. At the present time, however, the consumption of beer is becoming popular among the Latin races, and the German beers are esteemed in Paris, Turin, Milan, Rome, Madrid, and Lisbon, as well as in Berlin, Munich, and Vienna. There are numerous varieties of beer, but the three most esteemed types are the Bavarian, the English, and the Belgian. These are all highly appreciated in France, and attempts have been made to imitate them, but in vain.—*Union Méd.*, May 6.

HORSE-HAIR DRAINAGE IN CYSTIC BRONCHOCELE.—A woman, aged thirty-seven, was presented before the Lyons Medical Society, having been cured of a cystic bronchocele by capillary drainage with horse-hairs. The tumour was a very large one, and yielded a chocolate-coloured liquid on exploration. On February 24 a small mesh of horse-hair was passed right through it by means of an ordinary seton needle, and the liquid was gradually discharged on the following days. On March 3 the suppuration occurred, and on the 12th the horse-hairs were removed. By the 20th cure was absolutely complete, the cicatrices being hardly perceptible. M. Mollière, whose case it was, observed that, in spite of the very large size of the tumour, which penetrated under the sterno-mastoid, and extended from the top of the sternum to the larynx, neither fever nor septic accidents attended the discharge of the liquid. The same mode of drainage is applicable to hæmatic hygromas of the knee, and to cysts of the wrist or back of the hand.—*Lyon Méd.*, May 18.

COCKROACHES AS A DIURETIC.—Dr. Constantin Paul, in a paper in the *Gazette Hebdomadaire* of May 2, states that in consequence of the great reputation the cockroach (*Blatta orientalis*) has recently acquired in Russia and Germany as a diuretic, he instituted some trials with it, having obtained some of the powder from the manufacturer, Mark, of Darmstadt. This he has administered to fourteen patients during a considérable period, in daily quantities of from thirty to eighty centigrammes. Altogether about 100 of these doses were given, and that without any result in eleven of the fourteen cases. The three cases in which it seemed to exert an influence were examples of saturnine albuminuria with icterus, cirrhosis with much icterus, and catarrhal icterus. Other experiments made upon cases of icterus failed, showing that the success was merely accidental. "I have thought it desirable," M. Paul observes, "to make these results known, because when a new medicine appears, those who have employed it with apparent success hasten to make known their results, while those who have only obtained negative results remain silent—so that a new medicine only exhibits its successes, and even the worst of them may in this way have their period of vogue, to the detriment of patients and sober seekers after truth. Hence the proverb, 'Employ the medicine while it cures.'"

NEW METHOD OF REMOVING SUBMUCOUS AND INTERSTITIAL FIBROIDS OF THE UTERUS.—Dr. Gaillard Thomas described at the New York Academy of Medicine (*New York Medical Journal*, April) his mode of removing fibroids by means of the forceps and a serrated spoon. He uses for the exploration of the uterus a thin strip of whalebone, about one-third of an inch wide, bulbous at the point, which readily accommodates itself to the uterus, and allows of accurate measurements being taken of the attachment of the fibroid without any injury being possible. The spoon is a steel scoop, having small serrations on its free border. The capsule of the fibroid having been divided, and the tumour grasped by a strong forceps, the serrated spoon is pushed upwards with a swaying motion, closely hugging the tumour with its concave surface. The special value of the method consists in the rapidity of its execution, the absence of hæmorrhage, and the ease with which all parts of the tumour can be reached. Dr. Fordyce Barker observed that while this operation in skilful hands might prove very satisfactory, when practised by those who were not apt in the use of instruments it might be dangerous. In practice he had found that many fibroids disappeared either spontaneously or under treatment. Dr. Thomas, in reply, said that he laid down as a principle that interference should not take place unless for some impending danger; and a man who removed a fibroid simply because it was a fibroid would act culpably. The observations of Klob showed that uterine fibroids are very prevalent in the Anglo-Saxon race; and it is a well-known fact that in negroes over thirty, tumours are the rule, and not the exception. If a woman suffered from a fibroid, and could be carried over the menopause, the tumour would decrease with the change in the uterus.

RECTAL ALIMENTATION.—At a meeting of the Therapeutical Society of New York (*New York Medical Journal*, April), Dr. Andrew Smith, as chairman of the Committee on Restoratives, presented its report "On Defibrinated Blood for Rectal Alimentation." It is based on sixty-three cases, thirty-eight of which were cases of phthisis. In eight of these the treatment was not well borne, in ten it was of no benefit, and in twenty various degrees of benefit resulted. One case of diarrhœa in phthisis was made worse. Of nine cases of anæmia, one was not benefited, and eight were greatly improved or cured. Of five cases of dyspepsia, all were benefited, and some apparently cured. One case of dyspeptic asthma was entirely relieved while the treatment continued. All the four cases of exhaustion from various causes were benefited. Of three cases of neuralgia, one was not benefited, and two were decidedly improved. Of two cases of gastric ulcer, one died from hæmorrhage, and the other was rescued when apparently moribund. The Com-

mittee feels warranted in coming to the following conclusions:—1. That defibrinated blood is admirably adapted for use for rectal alimentation. 2. In doses of from two to six ounces it is usually retained without any inconvenience, and is frequently so completely absorbed that very little trace of it can be discovered in the dejections. 3. Administered in this way once or twice a day, it produces in about one-third of the cases, for the first few days, more or less constipation. 4. In a small proportion of cases the constipation persists, and even becomes more decided the longer the enemata are continued. 5. In a very small percentage of cases irritability of the bowels attends its protracted use. 6. It is a valuable aid to the stomach whenever this is inadequate to a complete nutrition of the system. 7. Its use is indicated in all cases not involving the large intestine, and requiring a tonic influence which cannot be readily obtained by remedies employed in the usual way. 8. In favourable cases it is capable of giving an impulse to nutrition which is rarely, if ever, obtained from the employment of other remedies. 9. Its use is wholly unattended by danger.

DENTAL HÆMORRHAGE.—M. Hémard, principal medical officer at the Military Hospital at Versailles, forwarded to the Société de Chirurgie the account of the case of a man in whom, after the extraction of the second upper left molar tooth, hæmorrhage persisted from June 30 to July 8, in spite of plugs, compression, actual cautery, etc. The man having become very feeble, the left common carotid was tied, with the effect of repressing the dental hæmorrhage, frequent capillary hæmorrhages, however, taking place from the wound. The ligature came away on the thirteenth day, but the wound had not completely cicatrised by October. The patient under tonics gradually recovered. The urine contained albumen and an excess of phosphates. M. Tillaux, in the discussion which ensued, expressed his doubts whether all had been tried before the ligature was resorted to. He had met with a case occurring in a student, in which he arrested the bleeding by plugging the alveolus with wax and causing digital compression to be made on this for about twenty-four hours by relays of friends. Cotton plugs imbibed with the perchloride may also be used in the same way, preceded or not by the cautery. If ligature were deemed necessary at all, the external carotid ought to have been tied, as danger from secondary hæmorrhage is much less. On this point Prof. Verneuil quite agreed with M. Tillaux. He attributed the hæmorrhage to the albuminuria, and it was in fact only arrested when quinine was given. To a student who had repeated dental hæmorrhages he gave fifteen grains of quinine at a time, and that stopped the bleeding definitively. In all such cases quinine should first be tried. M. Magitot considered a plug formed of gutta-percha mingled with charpie or cotton as far superior to one of wax. It is elastic, and retains its place in the alveolus without any digital compression. He has never met with dental hæmorrhage that could not be so arrested. Prof. Léon Lefort also blamed the preference given to the common carotid, and much prefers M. Magitot's plug, which adheres to the walls of the alveolus, to the wax plug, which allows the blood to pass by its sides. M. Desprès, however, stated that he had several times succeeded with the wax plug, taking care that the patient should keep compression upon it by means of his jaws.—*Union Méd.*, March 15.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

MUSEUM OF OBSTETRIC AND GYNÆCOLOGICAL INSTRUMENTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am sending the enclosed circular to as many members of the profession as I can reach, and would feel greatly obliged if you can give its contents publicity and approval in the way that seems best to you.

62, King-street, Manchester, May 16. I am, &c., J. THORBURN.

[*Copy.*]

Owens College, Manchester, May 15, 1879.

Dear Sir,—We are endeavouring to establish a museum or collection of obstetric and gynæcological instruments, illustrative of their gradual scientific improvement from the earliest periods, as well as of their most recent developments.

Should you possess any old instruments, the inventors or uses of which you can identify, you will confer a great favour by presenting them to the College, besides insuring a permanent place of deposit, and a useful public service, for what might otherwise be lost or unappreciated by others than yourself.

I am not without the hope also that inventors of modern instruments, or firms of surgical instrument makers, may be induced to present us with novelties which they would wish to be brought under the permanent notice of the profession in the largest extra-metropolitan centre of population in Britain.

All such instruments addressed to me at Owens College will be duly acknowledged, and the donors will be indicated in the permanent catalogue. I am, your obedient servant,

J. THORBURN, M.D.,

Professor of Obstetric Medicine, Owens College, Manchester.

P.S.—It will greatly facilitate the formation of a good descriptive catalogue if all instruments are accompanied by the following details:—(*a*) Name of donor. (*b*) Name of instrument. (*c*) Name of inventor, when known. (*d*) Description of peculiarities, uses, measurements, etc., as far as possible.

THE TREATMENT OF DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the course of my professional experience I have had but one case of diphtheria, the treatment of which may be considered interesting to your readers. In the first place, I may premise that for a few weeks before the false membrane came away I was totally ignorant of the disease, but a very noisy and troublesome cough preceded the exit of the membrane, which was considerably relieved by the exhibition of laudanum (from twelve to fourteen full-sized drops in a little cold water) at bedtime, which produced a tolerably good night's rest; and it is this fact particularly that I wish to bring to your especial notice. The false membrane that afterwards came away, after a little assistance was afforded in pulling it out, was very voluminous, filling a chamber vessel without its being pressed down. It had a coarse, fibrinous, lace-like appearance. When the false membrane was being removed, the exact nature of the disease was recognised as Bretonneau's disease, but not before. With careful nursing, with great care at first to the food swallowed, and with a soft, still air in the apartment, the patient got well rather rapidly afterwards.

Wallingford. I am, &c., WILLOUGHBY ARDING, M.D.

J. S., St. Bartholomew's, draws attention to a copy of the *Times* of Tuesday, January 1, 1788, in a tradesman's shop in the Strand, where the following advertisement appears:—"Anatomical Lectures.—Mr. John Abernethy, Assistant-Surgeon to St. Bartholomew's Hospital, will begin a course of Anatomical Lectures at 1 o'clock on Saturday, the 19th of January, at 17, Bartholomew Close, whose proposals may be had."

Diseased Pigs from America.—A cargo of pigs which lately arrived in the Mersey from Philadelphia was detained on suspicion that some of the animals were suffering from typhoid. After a veterinary inspection all were ordered to be slaughtered. Other importations of pigs are reported to be on their way, and the fate of these cargoes is causing the owners some anxiety.

Thames Water: its Impurity, and Localised Purity.—The Board of Conservancy of the Thames has sent a return to the Local Government Board which shows that London is still supplied with the sewage of Oxford. At present the Conservancy Board are urging the authorities of the city and University of Oxford to cease this pollution, and the hope is entertained that the sewage of Oxford may in no distant future be diverted from the river Thames. We may also draw attention to Mr. Buckland's remark in his Salmon Fisheries Report, recently published, as to the effect which the main drainage works have had upon the fisheries of the Thames. No fish can live four miles above and four miles below the exit of the sewage at Barking, while the water from which the sewage has been intercepted has so much recovered itself that flounders are now caught at Battersea-bridge, London-bridge, and occasionally off Westminster-bridge in close proximity to the House of Commons.

A Workhouse Engineer.—At the last meeting of the Mile-end Old Town Board of Guardians, the Clerk read a report from the secretary of the Boiler Insurance Company, which stated that the inspector of the Company had been to the engine-room on the workhouse premises, where he found the safety-valve of the boiler weighted down with old pieces of iron. The engineer, on being called upon for an explanation, told the Guardians that he had done this for the last fifteen years in order to keep steam enough to run the engine. The Chairman cautioned him against continuing the dangerous practice, and the question of insufficiency of steam was referred to the House Committee for consideration. Surprise may well be felt that such a hazardous expedient should have been exempt, by some exceptional cause, from accident or disaster for a period of fifteen years. It is to be hoped that this discovery by the inspector of the Boiler Insurance Company will lead to more frequent inspections of steam-boilers in which the Company's interests are involved.

The Cabdrivers' Benevolent Association.—The result of the appeal made by the Prince of Wales, at the dinner which took place a few days since on behalf of this Association, is a gratifying proof that cabmen, as a body, are worthy of public benevolence and support. The efforts made to ameliorate their condition generally have been attended with considerable success, and the consent of his Royal Highness to become the patron of the Association will, we hope, further stimulate a desire and determination still to continue to merit the interest of the public in their welfare.

A Pension.—The Greenwich Hospital Pension of £50 per annum, vacant by the death of Staff-Surgeon Wilson, R.N., has been awarded to Deputy Inspector-General Edward H. Cree.

Medical Students, Germany.—According to statistics just printed there were 8537 young men studying medicine at the twenty German Universities during the winter semester just passed.

Professional Poisoners in India.—The drugging of travellers and others by professional poisoners, says the *Times of India*, is just now so prevalent in Oudh and the North-West Provinces that official instructions have been issued to magistrates and police authorities to secure the suppression of the crime. The detection of the offenders is, however, difficult, for the poisoners travel alone, and carry out their plans without witnesses by drugging the food or drink of unsuspecting travellers with whom they have managed to strike up acquaintance. This is a relapse to an old kind of Thuggee.

COMMUNICATIONS have been received from—

Mr. John Chatto, London; Mr. D. Colquhoun, London; Dr. Robert Hunter Semple, London; Dr. C. Hilton Fagge, London; Dr. F. Churchill, London; Mr. B. R. Wheatley, London; Dr. E. Symes Thompson, London; Dr. W. S. Greenfield, London; Dr. J. Pearson Irvine, London; Mr. T. M. Stowe, London; Mr. T. W. H. Garstang, London; Dr. S. Wilks, London; Dr. Ed. I. Sparks, Cannes; Mr. E. H. Ruscoe, London; Dr. J. Thorburn, Manchester; Dr. Wm. Roberts, Manchester; Mr. Bushell Anningson, Cambridge; The Registrar of Apothecaries' Hall, London; Dr B. W. Richardson, London; Mr. C. J. Cullingworth, Manchester; Dr. G. E. Herman, London; Mr. J. T. W. Baoot, Seaton; The Hon Secretary of the Epidemiological Society; Mr. John Cooke, Hastings; Mr. James Cantlie, London; Dr. Dyce Duckworth, London; Dr. V. Poore, London; Mrs. Weldon, London; Mr. Alfred Reed, London; The Registrar-General, Edinburgh; The Secretary of the Royal Institution; The Secretary of the Local Government Board; Mr. Kenvil, London; Dr. Norman Kerr, London; The Secretary of the Society of Arts; Mr. J. B. Holloway, London.

BOOKS AND PAMPHLETS RECEIVED—

D. J. Cunningham, M.D., C.M., F.R.S.E., The Dissector's Guide, being a Manual for the use of Students—Dr. John Muter, M.A., F.C.S., An Introduction to Analytical Chemistry, second edition; An Introduction to Pharmaceutical and Medical Chemistry—Dr. L. J. Julliard, Étude Critique sur les Localisations Spinales de la Syphilis—A. de Quatrefages, The Human Species—C. E. Armand Semple, B.A., M.B. Cantab., Aids to Chemistry: part iii., Organic—Dr. E. Landolt, A Manual of Examination of the Eyes.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Révue d'Hygiène—El Siglo Medico—Ladies' Treasury—North Carolina Medical Journal—Archives of Dermatology—Canada Lancet—Index Medicus—New York Medical Journal—American Practitioner.

APPOINTMENTS FOR THE WEEK.

May 24. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. H. Morley, "On Swift."

26. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Karl Hillebrand, "On the Intellectual Movement of Germany from the Middle of the Last to the Middle of the Present Century."

27. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. J. R. Seeley, "Suggestions to Students and Readers of History."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Gowers, "On the Movements of the Eyelids." Mr. Barwell, "On Deligation, for Aortic Aneurism, of the Right Carotid and Subclavian Arteries, with a new species of Ligature."

28. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

29. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Dewar, "On Dissociation."

30. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Mr. Grant Allen "On the Colour-sense in Insects: its Development and Reaction."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 17, 1879.

BIRTHS.

Births of Boys, 1185; Girls, 1081; Total, 2266.
Average of 10 corresponding years 1869-78, 2210·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	831	701	1532
Average of the ten years 1869-78	710·6	644·6	1355·2
Average corrected to increased population ...	...	...	1450
Deaths of people aged 80 and upwards ...	...	...	62

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	2	7	2	1	8	...	1	...	...
North ...	751729	...	13	8	1	14	1	3	3	5
Central ...	334369	...	8	2	1	1	...	...	...	2
East	639111	...	14	6	3	16	...	3	1	3
South	967692	4	11	6	4	20	...	3	1	3
Total	3254260	6	53	24	10	59	1	10	5	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·854 in.
Mean temperature	47·9°
Highest point of thermometer	62·1°
Lowest point of thermometer	36·2°
Mean dew-point temperature	40·6°
General direction of wind	S.W. & N.W.
Whole amount of rain in the week	0·42 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 17, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending May 17.	Deaths Registered during the week ending May 17.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2266	1532	62·1	36·2	47·9	8·83	0·42	1·07
Brighton	105608	44·9	55	32	60·8	37·0	47·8	8·78	0·71	1·80
Portsmouth ...	131821	29·4	63	38	57·0	40·0	47·9	8·83	0·17	0·43
Norwich	85222	11·4	61	41	61·5	37·0	47·0	8·33	0·34	0·85
Plymouth	74293	53·3	42	34	61·0	39·5	48·7	9·28	0·48	1·22
Bristol	209947	47·2	138	92	66·7	39·2	49·0	9·44	0·39	0·99
Wolverhampton ...	75100	22·1	43	32	60·2	35·3	45·2	7·33	0·50	1·27
Birmingham ...	388884	46·3	278	160	...	...	...	...	...	...
Leicester	125622	39·3	86	44	65·5	36·0	48·2	9·00	1·48	3·76
Nottingham ...	169396	17·0	117	54	62·8	32·2	45·8	7·67	1·70	4·32
Liverpool	538338	103·3	385	240	...	...	...	...	...	...
Manchester ...	361819	84·3	244	182	...	...	...	...	...	...
Salford	177849	34·4	126	84	...	...	...	...	...	...
Oldham	111818	23·9	65	55	...	...	...	...	...	...
Bradford	191046	26·5	114	84	60·2	37·5	45·6	7·56	0·13	0·33
Leeds	311860	14·5	204	140	62·0	37·0	46·3	7·95	0·30	0·74
Sheffield	297138	15·1	191	131	63·0	34·7	48·9	8·28	1·15	2·92
Hull	146347	40·3	113	73	62·0	34·0	45·4	7·44	1·65	4·19
Sunderland ...	114575	41·4	90	52	68·0	41·0	46·4	8·00	0·54	1·37
Newcastle-on-Tyne	146948	27·4	94	74	...	...	...	...	...	...
Edinburgh	226075	53·9	168	81	61·5	35·0	48·2	9·00	0·23	0·58
Glasgow	578156	95·8	413	240	59·2	37·7	49·3	9·61	0·61	1·55
Dublin	314686	31·3	188	201	64·9	30·7	50·4	10·22	0·73	1·85
Total of 23 Towns in United Kingdom	8502896	38·6	5544	3696	68·0	30·7	47·4	8·55	0·68	1·73

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·85 in. The highest reading was 30·00 in. on Monday evening, and the lowest 29·61 in. on Wednesday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACT OF A CLINICAL LECTURE
ON SOME RARE FORMS OF SKIN DISEASE.

DELIVERED AT THE LONDON HOSPITAL.

By JONATHAN HUTCHINSON, F.R.C.S.,
Senior Surgeon to the London Hospital and to the Hospital for Diseases of the Skin, and Consulting Surgeon to the Moorfields Ophthalmic Hospital.

THE wife of a police-sergeant, named P., presents us with a somewhat peculiar example of lichen-psoriasis (lichen ruber *seu* planus). It is peculiar in this, that the eruption, although it has existed for a long time, is still restricted to a few places. It began, as she says, on the side of her right ankle, and on this part she now has a very large irregular area covered by patches of the disease. On the opposite ankle, in exact symmetry, but far less developed in extent, are other patches of similar character. There are none others anywhere excepting on the forearms. On the back of each ulna, about the middle, again in exact symmetry, are some groups of spots. They are much more extensive on the left than on the right arm. All the patches present the same characters—irregularity in shape, smooth polished surface, and lilac-tinted congestion. They have itched intolerably, especially those on the ankles. The woman does not know of any tendency to psoriasis in her family; she has never had skin disease before, and she was in good health when it began. She has not as yet had any treatment.

The case finds, I think, its analogue in certain cases of psoriasis which remain for long restricted to certain regions. We not unfrequently see cases in which patches occur only on the fronts of the knees, and sometimes when the knees and elbows are the only parts affected.

In the case of the old man before us (George M., aged seventy-four) we have a most instructive example of the coincidence of scrofula with lupus, and of the mixture of common lupus with lupus erythematosus. He is, as you see, a florid man, and, considering his age, in a fair state of nutrition. In his boyhood he was, he says, very delicate, and was often a severe sufferer from ophthalmia. On attaining adult life his constitution strengthened, and for a long period he enjoyed good health. His occupation was that of a carpenter. When old age was coming on him his scrofulous tendencies were relighted, and his cervical glands inflamed and suppurated. He has now extensive opacities at the margins of his corneæ, in proof of former ulceration both in their centres and at the margins, and he has large scars under the angles of his jaws. His lupus did not begin till some years after the glandular enlargements, and only two years ago. He was then seventy-two years of age, and, I think, the oldest patient in whom I have ever witnessed the commencement of lupus. The lupus patches formed, as do those of the erythematous kind, symmetrically—first under his chin, then one in the middle of each cheek, and then on the border of the helix of each ear. Thus the regions affected were those most usually attacked, but the characters of the local changes have been mixed—in part those of common lupus, and in part those of the erythematous variety. On the chin and under it there is erythema only, but on the cheeks there are patches of the brown apple-jelly growth which characterises common lupus. On the ears there is congestion and swelling only; but there, as well as in the middle of the cheek patches, somewhat extensive ulceration has taken place. The ulceration is erosion merely, and unattended by the great swelling and large scab-crust which usually attend that of common lupus. I have seen many cases which showed the mixing up of these two varieties of lupus, but never a more instructive and conclusive one than the present. It is quite possible that we ought to explain the occurrence of ulceration in part by reference to the advanced age of our patient. On the ears the eating away of the free border is not unlike that sometimes seen after frost-bite. You will observe that the patches are symmetrically arranged. Now, lupus erythematosus is usually symmetrical; common lupus never, except by accident.

Whilst this case is before us, permit me to mention another which bears with some interest upon several points which it illustrates. A colonel in the army, who has lived much abroad, both in hot and cold climates, is the subject of erythematous lupus on his cheeks, ears, and hands. He is in excellent health, a keen sportsman, and fond of exposing himself to weather. The borders of his ears have been eroded by ulceration, just as in the old man before us, but not to the same extent. The nose has almost wholly escaped, but in the middle of each cheek are large dusky erythematous patches; some also on the chin and on the sides of the neck under the ears. The backs of the hands and fingers are covered with them, and where the disease has crept up to the nail-roots the nails are broken and rough. Holding, as I do, that lupus erythematosus is a near ally to the chilblain type of inflammatory action, occurring chiefly in those who have been liable to chilblains, and influenced for good or evil by similar kinds of agency, I of course inquired on this point of my patient. Although a florid, robust-looking man, he told me that in youth he was scarcely ever free from chilblains, and that even when grown up, and during a winter in the Mediterranean, he still suffered from them. In fact, he says, "I scarcely ceased to be plagued with them until I got this, and it seemed to take their place." I have had Colonel —— under observation for three years or more, and can tell you something as to treatment. Weak lotions and ointments of tar, which in many cases cure, always irritate his patches, and he has never approved of any of the medicated ointments which I have prescribed. He prefers glycerine or vaseline, and, best of all, a glycerine embrocation which he gets from his chemist, and the precise composition of which I do not know. I forbade him to irritate the patches with soap, and he seemed better for the prohibition, but recently he asserts that free washing with Pears's transparent soap makes them more comfortable; they tingle and burn less. Their condition varies with his general health, and by reducing his wine and giving cod-liver oil he considers that he has been much helped. The chilblain condition is a very peculiar one. It is not always that chilblain feet and hands are made more comfortable by warm clothing. It is the same with Colonel ——. I tell him to wear thick fur gloves, but he replies that thin kid, even in cold weather, suit his hands better. During the recent cold winter he has been duck-shooting etc., night and day, without making his lupus worse. Probably the invigorating influence on his nervous system has more than counteracted the effect of the cold. Had he been underfed no doubt he would have been made much worse. It is a matter of doubt whether syphilis, which can simulate almost every known type of skin disease, ever produces lupus erythematosus. I have seen several examples of it in patients who had at long former periods had syphilis, and were very anxious to attribute their skin disease to that cause, but none in which I ever felt convinced on the point. There is a syphilitic simulation of common lupus so like the real disease that nothing but the history and the result of treatment can help us to a diagnosis.

THE SPHYGMOPHONE.

AN INVENTION OF A METHOD FOR MAKING THE MOVEMENTS OF THE PULSE AUDIBLE BY THE TELEPHONE.(a)

By BENJAMIN W. RICHARDSON, M.D., LL.D., F.R.S.

WHILE experimenting with the audiometer, it occurred to me that I might get a secondary or telephonic sound from the movements of the pulse at the wrist. I have effected this in a very simple manner, by adding a microphone to a Pond's sphygmograph. I mount on a slip of talc, glass, wood, or ebonite, a small plate of metal, such as platinum, or a little bar of gas carbon. I place the slip in the sphygmograph as if about to take a tracing of the pulse. I connect one terminal from a Leclanché's battery to the metal or carbon, and the second terminal from the cell to a terminal of the telephone. Then I connect the other terminal of the telephone with the metal rod of the sphygmograph which supports the slip. The instrument is now ready for use. It is placed on the pulse in the ordinary way, and is adjusted, with the writing needle thrown back, until a good pulsating movement of the needle is secured. When the movement is in full action, the needle is thrown over to touch the metal or carbon plate, which it traverses with each pulse-movement,

(a) Read before the Royal Society on May 14, 1879; and with additional notes.

and completes the connexion between the telephone and the battery. The needle, in passing over the plate, causes a distinct series of sounds from the telephone, which correspond with the movements of the pulse. When all is neatly adjusted, the sounds heard are three in number, one long sound and two short, corresponding to the systolic push, the arterial recoil, and the valvular check. The sounds are singular, as resembling the two words, "bother it." The sounds can be made very loud by increasing the battery power.

This little instrument is not a permanent recorder of the pulse like the sphygmograph, but it may be made very useful in class, for illustrating to a large number of students at one time the movements of the natural pulse and the variations which occur in disease. I call the invention the sphygmophone.

ADDITIONAL NOTES.—MAY 26, 1879.

On the whole, the carbon plate answers best, and for all ordinary purposes two Leclanché's cells are sufficient. From them the sounds produced are audible a distance of forty feet. By extension of the telephone wires the observations may be made in a room at a distance from that which contains the person whose pulse is yielding the movements that produce the sounds.

I have been able, since the communication relating to the sphygmophone was laid before the Royal Society, to make some new observations with it in cases of disease, and to compare the sounds it causes with the heart-sounds as they are heard through the stethoscope. I have also been able to get the telephonic expression derived from the cardiac pulsations. In a case of regurgitation the sounds on the sphygmophone, taken from the movements of the radial pulse, were very significantly marked. The first sound was short, the second was rather prolonged, the third was divided into two very short and sharp sounds, the last of the two running almost into the first sound without a pause. I suspected, from this, aortic deficiency with mitral obstruction, and the stethoscope confirmed this diagnosis. In the case of a patient who has no physical evidence of structural change of the heart, but who is subject to severe attacks of dyspeptic palpitation, an attack of palpitation came on while she was under examination with the sphygmophone. The sound now produced was of the most singular kind. It resembled precisely the rotatory motion of a large wheel, so that when I shut my eyes I could not believe that I did not hear the motion of a wheel or grinding-stone. Looking afterwards at the needle, it was seen to be making the usual movements as far as I could discern, but with great rapidity, yet I could not distinguish the three usual sounds from the telephone, nor aught except the quick rotatory whirr. When I held the telephone close to my ear the whirr was so loud and so perfectly like a wheel it made me feel giddy and nauseated, as if I myself were turning round. The palpitation, which lasted four minutes, stopped suddenly, and after a few hesitant strokes, the usual natural pulse-rhythm was resumed.

When a person who is being examined with the sphygmophone laughs, the pulse-beat is soon quickened, and the sounds produced are sometimes almost like an echo of the laugh itself. I notice also that with quick action of the pulse, when the beats are over ninety a minute, there is sometimes, together with the ordinary rhythmic sounds, a singular wave-like continuous murmur resembling that which is heard when a shell is held to the ear. I am not sure as yet as to the cause of this murmur: it may be from friction of the blood on the walls of the artery; it may be from friction of the blood itself; it may be a wave produced by the acts of respiration.

The sphygmophone will, I think, be found very useful for detecting minute and obscure pulsations in different parts of the body. It also indicates very quickly the action of alcohol and other medicinal agents on the pulse.

In applying the sphygmophone to persons who have intermittent pulse and who are timid it is judicious to reduce the volume of sound, the intervals of intermittency and the renewal of beat being singularly unpleasant phenomena when they are brought out in too pronounced a form. In such cases the operator may either reduce the battery power, or increase the resistance in some part of the circuit, and so bring the sound down to a whisper, to which he can listen by applying the telephone to the ear as if it were a stethoscope. In the consulting-room this is the best plan to adopt; it answers the purpose, and it does not disturb the mind, and thereby the circulation, of the patient.(b)

ORIGINAL COMMUNICATIONS.

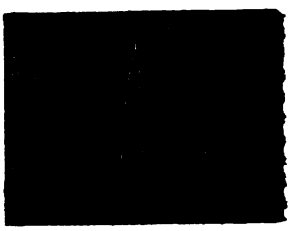
ON THE TEMPERATURE IN RELAPSE OF TYPHOID FEVER.

By J. PEARSON IRVINE, B.Sc., M.D., F.R.C.P. Lond.,
Assistant-Physician to Charing-cross Hospital, etc.

(*Continued from page 451.*)

THE following cases will explain themselves without any general reference. The first is an example of what I have alluded to as a recrudescence in typhoid fever, and, like the other cases quoted, will possibly be found of interest by way of comparison.

Case 19.—A boy, aged fourteen, passed very favourably through an attack of typhoid fever, under the care of Dr. Silver, in Charing-cross Hospital. Convalescence commenced, and at the end of the first week the temperature was as low as 97·2° Fahr., and the general condition was satisfactory. Then quite suddenly the temperature ran up, and in four-and-twenty hours stood at 103° Fahr. Relapse was suspected, and an appropriate treatment adopted, but the temperature as suddenly remitted, in twelve hours falling from 103° Fahr. to 97·6° Fahr. It remained subnormal throughout the same day, and was not followed by an evening exacerbation—facts which, I believe, were sufficient to exclude regular relapse. Before the temperature ran up, the patient had been seen by his friends, and there was every reason to believe that he had been supplied with objectionable food, which, though not capable of exciting relapse, might excite dangerous sequelæ, and even cause death. On these points I shall offer some observations later on.



CASE 19: RECRUDESCENCE AFTER TYPHOID FEVER (a male, aged fourteen).—Primary attack ended favourably, and for several days the temperature continued subnormal—mostly below 98° Fahr. It suddenly rose from this level in the evening to 103° Fahr. on the following afternoon—five degrees in less than eighteen hours. It fell as suddenly to 97·6° Fahr. on the next morning—five degrees and a half in less than twelve hours. The temperature remained subnormal on the same day, and relapse was excluded; and after-rises indicated accident rather than relapse. (*Vide* text.)

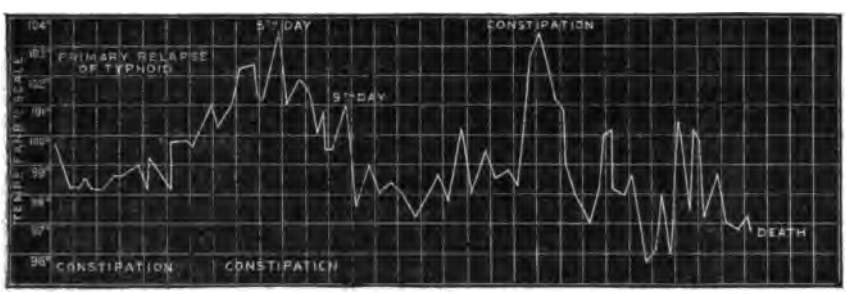
The temperature during succeeding days did not remain subnormal, and for several days, indeed, it fluctuated irregularly, and was indicative of an obscure complication, which required dietary care quite as much as true relapse. It is hardly too much to say that a febrile temperature of irregular type, during convalescence from typhoid fever, demands, because of its obscure nature, even more attention than those decided relapse temperatures which have been recorded. Uncertainty is bound to provoke caution, and in typhoid fever should induce us to err on the safe side as regards diet. The patient did well and had no true relapse, but the extraordinary temperature of 103° Fahr., though it must be possible of explanation, could not, in our present state of knowledge, be determined.

Case 20.—A male, aged twenty, was admitted into Charing-cross Hospital on June 6, 1878. He was suffering from typhoid fever, and was one of a family of nine, seven of whom had been attacked by this disease. The cause was attributed by the mother to "foul smells" from a privy adjacent to the house, and some neighbours who had suffered agreed with her on this point. The patient on admission was very ill; and on the morrow his temperature was 104·2° Fahr. But the fever abated in a gradual and satisfactory manner; and on the sixth day after admission (day of disease uncertain) the temperature was only 98·4°

(b) The adaptation for the sphygmophone is being carried out for me by Messrs. Krohne and Sesemann with their usual skill; and, under the direction of Professor Hughes, the audiometer, described in last week's *Medical Times and Gazette*, is being constructed by the same well-known firm.

Fahr. (June 11). Two days before there had been diarrhœa with typhoid stools; and so severe was the diarrhœa that an opiate enema was deemed necessary and given. For eight days afterwards (June 11 to 19) the temperature oscillated between 98° Fahr. and 99·5° Fahr., diarrhœa ceased, but pains occurred in the abdomen requiring poultices for their relief. On June 21 the temperature began to rise, and a grain of sulphate of quinine was given every four hours. But the fever daily increased; for a true relapse commenced on June 23, during the time the man was taking six grains of quinine daily. On the first day of relapse the temperature was 98·4° Fahr.; then came a comparatively steady rise to 103·5° Fahr. on the evening of the fifth day. On the sixth day of relapse the temperature sank so that in the evening it was only 101° Fahr., and this fall was continued on the following days. On the eighth evening the temperature was 101° Fahr., and on the ninth morning 97·6° Fahr. Constipation was so decided as to need a simple enema.

The after course of the temperature in this case is exceedingly interesting. On the eleventh day of the true relapse the temperature was 97·2° Fahr., and next day a new rise commenced. Was it due to intercurrent relapse? On the fifth day of this new rise the temperature ran up rapidly to 103·4° Fahr., and was accompanied by pains and tenderness over the abdomen and the left leg. Next evening the temperature was down to 98° Fahr. (more than five degrees in twenty-four hours), and during this sudden fall there were only two evacuations, and these contained no blood. The patient still complained of abdominal pains and had a troublesome hiccough. Fomentations containing tinct. opii were applied to the abdomen and the left leg. The temperature continued its fall the next day to as low as 97° Fahr. Brandy was prescribed in half-ounce doses every hour, and ether inhalations to check the hiccough. On July 12 (eighth day of the intercurrent relapse, or nineteenth of interrupted relapse) the temperature was 100° Fahr., but next morning only 98° Fahr. It fell for two days, in fact, and reached 95·8° Fahr., then exacerbated in the most irregular manner—in a manner quite sufficient to indicate serious complications. A reference to the chart will be more instructive than any further words.



Case 20: Complicated Case of Typhoid Relapse (a male, aged twenty).—Admitted towards end of primary attack, which ended favourably. The temperature during apparent convalescence was irregular, and suspicious of danger for about ten days. Then a true relapse set in, the fever of which reached its height on the fifth day. Thence the temperature fell, but particularly on the ninth day (99° Fahr.). Shortly afterwards intercurrent relapse began, and on its fifth day the temperature was 103·5° Fahr. A sudden descent followed to 97° Fahr.; then came an irregular rise and an irregular fall. Patient died on the twenty-fifth day of his complicated primary relapse. Irregularity of temperature in this case requires careful consideration. (*Vide* text for particulars.)

The patient died, his temperature shortly before death being below 97° Fahr. His prostration for some time before death was very marked, and champagne was given as well as brandy; and the day before death (temperature about 97° Fahr.) a note was made of the hopeless condition of the patient. On post-mortem examination typhoid changes were found in the intestines, and in addition suppuration of the mesenteric glands on the right side of the abdomen. There were also evidences of a recent general peritonitis, but perforation of the intestine had not occurred.

This case is most instructive. I do not know how anything but the regular use of the thermometer, taken of course with all other methods of examination, could explain it. I venture to think that the case is an example of relapse of typhoid interrupted by intercurrent relapse, and complicated by suppuration of mesenteric glands and peritonitis, the complications causing the death of the patient. It is also exceedingly probable that the mesenteric mischief came on during the primary attack, and kept the temperature above the normal during the interval between the end of that attack and the onset of relapse. From first to last the fever was irregular in type, irregular in the interval before the relapse, irregular in the interruption of the relapse by an intercurrent attack, and irregular in the course of the latter. No case could better illustrate the value of the thermometer. I have not described the general post-mortem appearances, because they are such as are usually met with in persons who have died of typhoid.

(*To be continued.*)

PRACTICAL NOTES ON

THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By Dr. CHEVERS.

(*Continued from page 396.*)

The Materia Medica of India.

This is a subject upon which the Indian physician ought to acquire considerable practical knowledge; but it is a matter which lies outside the object of these notes. Native medical men and patients constantly speak to us of various native remedies with which we ought to be, at least, acquainted, and several indigenous drugs, such as opium, castor oil, ginger, alum, kat-kalija, atees, gurjun balsam, gulancha, ununtamool, chiretta, bael fruit, babul bark, neem leaves for fomentation, mustard oil for liniments, sola for corks, Madras fish oil, telini fly, etc., are frequently used in our own practice. The medical authorities insist upon the free use of indigenous medicines in dispensary practice; but here it is needful to remark that, if we are not careful to disguise the appearance and flavour of bazaar medicines, our dispensary patients are apt to accuse us of giving them common drugs and of reserving our best medicines for the rich!

It has occurred to most of us, when our supply of Europe drugs has run short at a remote station, to be compelled to fall back upon bazaar medicines. When I first went to India, we were allowed very little quinine, and had to use bark-powder in our gaol and sepoy hospitals. At Chittagong, my supply of bark having run out, and intermittent fever of moderate severity being extremely prevalent, I used the powder of the seeds of kat-kalija, *Cæsalpinia bonducella* (average dose, twelve to fifteen grains), in cold infusion of chiretta, for several weeks, with perfect success. It is related of Dr. William Pitt Muston that, having under his charge 1500 sick in the force employed against the State of Gopud in 1805, and being without the usual supply of medicine, he relied, "and with complete success," on the materia medica of the Gwalior Bazaar.(a)

My friend Dr. Waring has published three editions of a work which ought to be in the hands of every medical man in India. It is entitled "Remarks on the Uses of some of the Bazaar Medicines and Common Medical Plants of India," and is published by Churchill. In this book we are taught, by the highest authority on the materia medica of India, how the drugs commonly procurable in Indian bazaars may, in remote parts of that country, be made sufficient for the treatment of all ordinary diseases if the practitioner be also provided with these *nine* medicines:—Quinine, powdered Ipecacuanha, Calomel, Santonin, Bromide of Potassium, Acetate of Lead, Blistering Fluid, Liquor Ammoniæ, and Carbolic Acid.(b) The means of studying this very important subject more deeply are afforded in the Pharmacopœia of India, also prepared by Dr. Waring under the authority of the Secretary of State for India; in the learned and most carefully prepared work of my friend Odoy Churn Dutt, on

(a) The harm which the absence of mercurials prevented the worthy doctor from doing must not be left out of consideration in estimating the good which the use of bazaar medicines doubtless wrought upon his sick.

(b) The practitioner ought to make his own blistering fluid from the country telini fly, *Mylabris cichorii*; and, if I had my Indian career over again, I would willingly dispense with Calomel and Acetate of Lead.

the Sanskrit Materia Medica; and in that great storehouse of Indian pharmaceutical lore, Sir William O'Shaughnessy Brooke's "Bengal Dispensatory."

My notes, which comprehend those diseases which are usually treated in the physicians' wards(c) of the Calcutta Medical College Hospital, are arranged in accordance with the Nomenclature of Diseases promulgated by the London College of Physicians.

Variola, Vaccinia, Varicella.

The learned research of Dr. T. A. Wise(d) has shown that the Hindus and also the Chinese were familiar with Small-pox many centuries before it was described by the Arabian physicians. It, however, is not probable that Hindustan was its original source—unless its cradle was among the aboriginal hill-tribes—as it appeared suddenly in the plains of India, and committed such ravages that it was named after the goddess Shitalá, at whose shrine those attacked vow to make offerings, and whose ministers were the earliest inoculators. Dr. Wise holds that the pest was probably carried westward by the Persian conquerors of Hindustan; and that, as navigation extended, ships from India conveyed it to the Arabian ports of the Red Sea, where it seems first to have appeared A.D. 900.

From time immemorial, variolous inoculation has been employed by the natives of India. This practice, as carried on by the *teecadars*, is considered to be agreeable to Shitalá, the goddess of Small-pox, to whom vaccination is held to be offensive. Recklessly and unscientifically as it is generally carried on,(e) often surreptitiously in evasion of the law, and directly operative as it is in the maintenance and diffusion of small-pox, inoculation is still, in India, as it was in England previous to the use of vaccination, a very important protective among those who obstinately reject vaccination. Thus, in 1854, my friend the late Dr. Bedford showed, from data collected by himself, Dr. Wise, and Dr. Wilson, that, among 33,811 inhabitants of three large towns in Bengal Proper, 82·12 per cent. bore the cicatrix of successful inoculation on their forearms.(f) Considering all that has been done with a view to extend vaccination in Bengal during the two decades which followed Bedford's inquiry, it appears almost impossible to resist the belief that, at least in the most carefully vaccinated districts, the above high percentage must have now become sensibly diminished; nevertheless, the Surgeon-General's reports show that, in the Gaols of the Burdwan Division, in 1872-73, the percentage of inoculated in 1406 individuals was 85·21 per cent. The difficulties which attend the advance of vaccination, especially Eastward in Bengal, and still more signally in Orissa and in the greater part of the Province of Assam, have led some to question whether Government ought not to abandon vaccination and to carry on inoculation systematically, as they formerly did in their European regiments. The arguments in favour of systematic inoculation in India are fully stated at page 124 of the admirable work of my late friend Dr. Kenneth Mackinnon, "A Treatise on the Public Health, Climate, Hygiene, and Prevailing Diseases of Bengal and the North-West Provinces," which, although published in 1848, is still invaluable to the Indian practitioner. While fully admitting the self-evident objections to this measure, I have always doubted whether its adoption would not have effected more good than that of vaccination has done.

Let us add to the above facts the following suggestive data:—In the examinations described by Dr. Bedford and in the Surgeon-General's reports, as cited above, it was found that the proportions of those who had undergone vaccination, in 1854, were 5·6 per cent., and in 1872-73, none. It must be admitted that the practical validity of these last figures is diminished by the facts that the first set of observations was made twenty-five years ago, and that the subjects of the second were of the ignorant criminal class, among whom the benefits of vaccination are least likely to be recognised. It is, however, shown in the Surgeon-General's reports for Bengal Proper that although the annual proportion of persons requiring protection is 2,049,000, the annual number of vaccinations was only 365,622 in 1871-72, and 687,406 (500,094 fully verified) in 1872-73. The same authority has shown that, at least up to 1869, the amount of protection conferred throughout the whole of the Bengal Presidency is altogether insufficient, as vaccination is received by only—

22·35	per cent.	of the children born in	Bengal.
27·14	,,	,, ,,	N.-W. Provinces.
36·47	,,	,, ,,	Punjaub.
38·46	,,	,, ,,	Central Provinces.
3·63	,,	,, ,,	Oudh.

My friend Dr. Kenneth McLeod adds, that taking the whole of these provinces, affording, at 3 per cent., 3,490,146 births, only 878,654 were successfully vaccinated, or 25·17 per cent. In the Madras Presidency, Vaccination goes on with activity, but is still susceptible of great extension. The report of sanitary measures in India shows that in the year 1876-77 the number of vaccinations in that Presidency was 433,192, an increase of 101,780 on the results of the previous year. Dr. Cornish rates the success at 94·33 per cent. of those vaccinated. In his inaugural address(g) in the Epidemiological Society, Surgeon-General John Murray shows that, in the three Presidencies, the number of vaccinations in 1875 and 1876 was only 3,729,275, of which 3,390,007 were successful—a result which, highly creditable as it is to the vaccinators, falls very short of affording due protection to a population of nearly ninety-five millions, among whom the annual birth-rate must range between 3 and 4 per cent. Inoculation is still carried on to a great extent, especially in the Lower Provinces. It has never been very prevalent in Upper India. Throughout the Province of Assam inoculation is practised as a rule. At Gowalparah, Assam, in 1871, the priests fined and put out of caste individuals who had their children vaccinated. The people of the Province of Orissa appear to entertain an unconquerable aversion to vaccination. To extend the law prohibiting inoculation to any district is self-evidently a measure which requires many considerations, and the existence of a strong probability that the inhabitants may be brought to accept vaccination, and to discard inoculation. Thus, in Assam, vaccination is practised to a very small extent, but appears to be slowly gaining ground. Recently, Dr. De Renzy(h) has reported that variola is endemic in Assam, the indigenous population suffering very severely; but the coolie population of the tea-gardens are entirely exempt, as vaccination is compulsory on them. In Orissa vaccination has yet to be accepted. Sir J. C. Brown reported that the districts of Bengal, where inoculation is not practised, or on the decline, are—Calcutta and Midnapore, very little inoculation; Darjeeling Circle, not so universal; Arrah, diminished; Monghyr, Bhaugulpore, and Sonthal Pergunnahs, much diminished; Chota Nagpore Division, seldom practised. In 1866, Dr. Aitchison induced the Hakeems of Umritsur to practise vaccination.

It has been deemed advisable of late to employ the services of the native inoculators in vaccination. My friend Dr. Chundra, when Civil Surgeon of the Sonthal Pergunnahs, in 1869, reported, "The inoculators like the work, because it is less troublesome and less risky than inoculation, and the people themselves appeared to be satisfied and happy." Subsequently, in 1873, Sir J. C. Brown tells us that much progress had been made in the instruction of inoculators, although it had been practised only in the districts of Bancoorah, Midnapore, Kamroop (in Assam), Patna, Arrah, Chumparun, Monghyr, Bhaugulpore, Sonthal Pergunnahs, Singbhoom, Maunbhoom. He suggested that, to facilitate and perfect the system, a subsistence allowance ought to be given to the men while under instruction; moderate

(c) It is perhaps hardly worth notice that I commence with remarks on certain contagious diseases which are not, of course, treated in these wards; separate accommodation being duly provided for such cases elsewhere.

(d) "Commentary on the Hindu System of Medicine."

(e) The native inoculators of India can hardly be more ignorant and reckless in practice than were some of those who inoculated the English poor a hundred years ago. The following extraordinary notice appeared in the *Oxford Journal* of February 4, 1758:—"I George Ridler near Stroud in the county of Gloster Broadweaver at the desier of peepel hereabout do give nautis that I have inokilated these too seasons past between 2 and 300 for the small pox and but two or three of them died. A mainy peepel be a feard of the thing but evaith it is no more than scrattin a bit of a haul in their yarm a pushin in a peece of skraped rag dipt in sum of the pocky matter of a child under the distemper. That every body in the nasion may be sarved I will God willin undertake to ionokillat them with the perviser they will take too purges before hand and loose a little blud away, for half a crown a head; and I will be bould to say noo body goes beyond me. *N.B.*—Poor volk at a shillin a head but all must pay for the purgin."

(f) *Indian Annals of Medical Science*, No. 1, page 183.

(g) *Medical Times and Gazette*, November 28, 1 78, p ge 606.

(h) As cited by Surgeon-General Murray.

rewards should be assigned to those who do really well; and, above all, systematic inspection should be provided.

In 1869 the Surgeon-General reported that, both in Calcutta and Bombay, the reproduction of strong virus through the calf is needful, owing to the degeneration of the lymph by vaccination from arm to arm during the Hot and Rainy seasons. Not so, according to Dr. Watson, in the North-West Provinces, where abundance of good virus can be supplied from the children of the Sub-Himalaya Mountains. Later, in 1873, this authority held that there appeared to be no reason why the Darjeeling Hills should not be used as nurseries for the lymph required to set vaccination a-going in the Plains; as the hills of Kumaon and Gurhwal, the Tebree and Murree Hills, are successfully employed for the purpose in the North-West Provinces and Punjaub. In 1873, my friend Dr. Charles, Superintendent-General of Vaccination, Calcutta, reported that the stock of virus originally taken from the calf in Calcutta, which had never previously been through the human system, had, on March 31, 1873, reach its 142nd transmission through man. It had retained its efficacy unimpaired, but was in no way superior to the old stock of lymph which was still in use in other parts of the town.(i) The Calcutta vaccinating season may be said to begin from the month of October. It is recommended to practise the operations as little as possible during the Hot months in the Plains. In the Hills it succeeds better. Not only is vaccination likely to fail if attempted during the wrong season, but, as was shown by my friend Dr. T. W. Wilson,(k) vaccination among natives of Bengal, towards the end of the rainy reason, often produced irregular appearances, being followed by papular and vesicular eruptions. Indeed, Dr. Wilson, a very cautious and accurate observer, held that—"By continuing to use the same stock of lymph a disease identical with small-pox is the result, having all the worst features of that malady, being infectious and often fatal, and these secondary eruptions are not of rare occurrence." On the occurrence of such accidents it used to be popularly rumoured that our vaccinators spiced their vaccine lymph with variolous matter.(l) I recollect a very painful and in some respects inexplicable case in which a young native gentleman of some importance died of small-pox after having been vaccinated by one of my native doctors. The patient had come in to the Civil Station, in some alarm, from a village where small-pox existed. If, however, he caught the disease there, the period of incubation was excessively prolonged. I nevertheless had not the slightest reason to doubt the perfect good faith of my native doctor, to whom the mishap was a sad blow.

The question of the liability of the vaccine disease to degenerate in India is discussed fully, and, considering that the author was an advocate for inoculation in preference to vaccination, very fairly, by Dr. Mackinnon;(m) but as, under an improved system, the reports of the existence of an ineffective virus, except when the operation is attempted in the Hot and Rainy seasons, have become rare of late, I shall not say more upon this question, in which it must always be impossible to found accurate conclusions upon other people's cases.

As in Europe, it is a matter of general observation that, both in the North-Western Provinces and in Bengal Proper, Small-pox may be expected to appear late in the cold season and to prevail most from January until May, greatly declining or entirely disappearing in the Rains. My friend Dr. John Macpherson has shown(n) that, during a term of twenty-nine years, the deaths from Small-pox in Calcutta occurred as follows:—In January, 1425 deaths; February, 2845; March, 4934; April, 4249; May, 2261; June, 1054; July, 555; August, 223; September, 188; October, 147; November, 132; December, 576. It appears clearly in Dr. A. H. Leith's "Death Statistics of Bombay," that the same law is operative in Western India. In the five years 1852-56 the death-rate from Variola generally began to rise in December. It was high and increasing in January and February. It was very high in March, and reached its maximum in April. In May it fell considerably, but was still very high. Thenceforward there was a progressive decrease, but in June and July the deaths were numerous. In the four succeeding months the death-rate was generally low. In the September and October of 1854 and 1855 there were not any deaths from this cause.

In the absence of reliable census returns our measurement of the prevalence of Small-pox among the natives is not very exact. Bedford's statistics, already noticed, show that, among 33,811 persons, 389 had suffered from natural small-pox. Out of 1406 prisoners in the Gaols of the Burdwan Division, 105 had also suffered from the disease. Of course these statistics only represent the survivals. Nearly 3000 deaths from small-pox occurred in Calcutta in February and March, 1865. In 1872-73 there were only 19 deaths from small-pox in that city. In the five years 1852-56 the numbers of registered deaths from small-pox in Bombay were 1007, 649, 313, 1014, and 199.

Dr. John Murray shows, from the Returns, that in 1875 and 1876 the mortality from small-pox in India is reckoned at nearly 200,000, while in the two preceding years it was nearly half a million.

Inquiries made by the Medical Board, and cited by Dr. Kenneth Mackinnon, show that amongst the entire Madras Native Army, for ten years ending 1838, in an aggregate strength of 568,408, the cases of small-pox recorded numbered only 415, and the deaths 42.

According to Dr. Kenneth Mackinnon, the strength of the European troops in Bengal during the six years from 1846-47 to 1851-52 averaged 18,795. In that period there were 229 cases of small-pox, of which 65 were fatal. Recent reports, as cited by Dr. Murray, give a much more favourable result. During 1875 and 1876 only two deaths resulted from this disease among 120,000 European troops systematically vaccinated.

The Profession in India have always been remarkable for their promptness in adopting the newest scientific discoveries. The Royal Jennerian Society was established in London in 1803, and, in the following year, Dr. Shoolbred reported 1426 successful vaccinations in Calcutta. The first Superintendent-General of Vaccination in Bengal was appointed in 1816. In 1873 the staff at that centre was composed of a Superintendent-General, 3 Superintendents, 11 Deputy and Native Superintendents, 404 Vaccinators, 24 Apprentices, and 272 ex-Inoculators who practised vaccination on their own account.

As we have shown above, Small-pox generally appears in Calcutta and Bombay towards the end of each cold season. Its rise in those cities appears to be principally attributableto the activity of the inoculators and to the movement down-country of itinerant traders from the North. At intervals of from four to six years it rages in the native city as a pestilence. At these times, when the contagium is at its fiercest height, it, in many cases, defies all protection. I have seen cases in persons deeply scarred by a previous attack. It was probably upon the occasion of such a visitation that Dr. Macpherson(o) found that, out of thirty cases of confluent small-pox treated by him in one year in the Calcutta General Hospital, twenty-five had been vaccinated, and twenty died.

Poor food, the influence of paludal poison, evil drainage, and imperfect ventilation in crowded city dwellings, often render the pest cruelly destructive, especially in the young, in whom the cornea and joints frequently suffer. I have before me the photograph of a Calcutta beggar, the foundation of whose entire face is one cicatrix, destitute of features, save that the mouth is a lipless chasm, and that the eyeballs roll under the new integument which has formed over them. Quinine would probably have prevented this destruction. We can notice very little essential difference between the small-pox of India and that of Europe.

Dr. Duncan Stewart, as cited by Dr. Mackinnon, stated, as the result of his great experience in Calcutta—first, that,

(i) It is reported that, in 1876, small-pox was very prevalent in Bombay, and vaccination became popular. "Morning and evening a vaccinator with a heifer was sent round the streets, so that vaccination was brought to the very doors of the people."

(k) "On Varioloid Eruptions consequent to Vaccination in Bengal" (*Indian Register of Medical Science*, 1848, page 541).

(l) In his annual report upon vaccination at Bassein in 1866-67 (*Indian Medical Gazette* for August 1, 1867), Mr. A. Callaway Nisbet writes:—"Many have confessed to me that after applying for lymph—as a blind, it would appear, to escape some fancied punishment for practising inoculation—and after having had the arms of their children duly punctured in the prescribed fashion; nay, after the operation had been duly performed by the unsuspecting Government vaccinators, small-pox virus had been subsequently introduced into the punctures, and, as I observed myself in many cases, inoculation in the Burmese fashion had been employed likewise at one and the same time."

(m) "On the Epidemics of the Bengal and North-West Presidencies" (*Indian Annals of Medical Science*, No. 3, 1854, page 147).

(n) "Cholera in its Home," page 4.

(o) Cited by Dr. Mackinnon.

in seasons of epidemic small-pox, *Varicella* is not seen; second, that, on the other hand, in seasons when chicken-pox shows itself, we need not fear an outbreak of small-pox during that season. He says, "When a well-marked case occurs in a school early in the season, I have no fear of small-pox appearing also that year." Elsewhere, however, the two diseases (if they be wholly distinct maladies) have been noticed to prevail synchronously.

Varicella is not very prevalent in India. Mackinnon found that, in the three years 1849-52, among the children of the European soldiers in Bengal, averaging 2291, there were only twenty-four cases of chicken-pox during the whole period, and no deaths.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASE OF PRIMARY CANCER OF THE PANCREAS, WITH SECONDARY INFECTION OF THE LIVER, LUMBAR AND MEDIASTINAL GLANDS, ETC.

(Under the care of Dr. JOHNSON.)

[For the following notes we are indebted to Mr. F. Willcocks, M.B. Lond., Medical Registrar.]

George H., aged thirty-five years, a tinplate worker, was admitted into the Sambrooke ward on May 1, 1879. He stated that his mother had died of cancer of the breast at the age of forty years; his father, brothers, and sisters were alive and healthy. He himself had always enjoyed good health, and had no bad symptoms until last Good Friday (April 11), when he first began to vomit after every meal, and to complain of sharp stabbing pain over the region of the liver, together with constipation and loss of appetite. At the same time the conjunctivæ became slightly jaundiced, and his attention was first drawn to an enlargement in the upper part of the abdomen. He had always been thin, but from the commencement of his illness had lost flesh rapidly. Previous to his admission into the hospital he had been under no medical treatment.

On admission he was exceedingly cachectic and emaciated; his temperature in the axilla was 100·2° Fahr., his pulse was 136, and his respirations 34 to the minute. The skin was dry and inelastic, and slightly jaundiced, as well as the conjunctivæ; the liver was enlarged and prominent, the lower margin extending in the median line to within an inch and a half of the umbilicus, and in the mid-axillary line on a level with it. The upper limit of hepatic dulness was normal. The surface of the liver was hard, nodular, and tender on pressure; one nodule was especially prominent on the margin of the left lobe; the organ moved freely with respiration, and there was an obscure sense of fluctuation in the lower part of the abdomen. A gland about the size of a walnut could be felt in the left supra-clavicular fossa, but no other superficial gland was perceptibly enlarged. The respiratory sounds were somewhat feeble, but otherwise the lungs seemed normal; the heart-sounds were normal. The urine contained no albumen, but was slightly tinged with bile. The abdominal pain and vomiting were less urgent than they had been previous to admission.

May 2.—Temperature from 98·8° to 100·2°; pulse 130. There has been no vomiting; the bowels are constipated. Twelve ounces of urine have been passed in the twenty-four hours.

3rd.—Temperature from 99·2° to 100·2°; pulse 136. Urine twenty ounces. Patient is much weaker, and has no appetite.

4th.—Temperature from 99·2° to 98·8°. Urine thirty-four ounces. There has been no vomiting, but there is great prostration.

5th.—Patient died this morning. While under treatment occasional doses of liquor morphiæ hydrochloratis were given, and purgative doses of magnesiæ sulph., and pil. colocynth co.

Autopsy, thirty-eight hours after Death.—On opening the abdominal cavity a considerable quantity of sanious fluid escaped. The liver extended downwards to within an inch of the umbilicus in the median line, and presented externally several prominent masses, about eight in number; these varied in size and shape, the larger being of the size of an orange, umbilicated in the centre, and with hæmorrhage in their interior. An adhesion had been formed of about the size of the palm of the hand between one of the deposits, on the upper and posterior aspect of the right lobe, and the diaphragm. Similar deposits were scattered through the organ. The hepatic substance was slightly stained with bile, and was fatty; the whole liver weighed 8 lbs. 13 oz. The gall-bladder and ducts were somewhat distended. The pancreas was firm, and solid with cancerous deposit, but had produced no obstruction to the duodenum, which was only slightly narrowed; its mucous membrane was normal. The lumbar glands were enlarged and firm; one adjacent to the bifurcation of the abdominal aorta was softened. A few small nodules about the size of peas were scattered over the anterior surface of the stomach; but here also the mucous membrane was healthy, and there was no pyloric obstruction. There was no appearance of general peritonitis. The glands in the posterior mediastinum were enlarged, as well as one above the left clavicle. Both lungs were œdematous at the bases, but otherwise normal. The valves of the heart were normal. Both ventricles contained decolourised clots, the clot on the left side extending six inches into the aorta. The kidneys were fatty in appearance, and weighed, the right five ounces, the left five ounces and a half. The other organs were normal. The structure of the new growths, as seen under the microscope, showed the ordinary appearances of encephaloid cancer.

Remarks.—The chief clinical interest of the case lies in the fact that the patient's attention was only drawn to the existence of the disease about three weeks previous to his death—a fact the more remarkable when the extent of the cancerous deposit is considered.

CHARING-CROSS HOSPITAL.

THREE CASES OF POISONING BY BELLADONNA, OPIUM, AND STRYCHNINE.

[For the notes of the following cases we are indebted to Mr. H. C. Rowbotham, M.R.C.S., Resident Medical Officer.]

Case 1.—Belladonna Poisoning.

Catherine W., aged twenty years, single, a domestic servant, was admitted to the hospital on January 13, 1879, under the care of Dr. Pollock, under the following circumstances. She had been a patient at a metropolitan dispensary for about a week for some slight ailment, and had been taking a mixture containing tincture of belladonna in twenty minim doses. On the date of admission a mistake had been made in dispensing her medicine, and liniment of belladonna was substituted for the tincture. At 6 p.m. she took a dose of the mixture, and thereafter went to a theatre. At 8 p.m. she suddenly became giddy and experienced a sensation of numbness in her arms and legs; her vision became hazy, distant objects being specially indistinct. She felt intensely thirsty, and had a sensation of great dryness and burning in the throat and tongue; she was then taken home. The symptoms continuing, she was brought to the hospital at midnight. On admission she complained of all the symptoms mentioned above; her face was flushed, pupils widely dilated, and not responsive to light; the eyeballs were prominent as in exophthalmos; the tongue was moist, and the throat appeared normal. She staggered somewhat in walking, and her intellect seemed confused; pulse 140, regular and strong; temperature in axilla 98·4°.

Treatment.—An emetic was at once administered, which acted rapidly, and patient was then put to bed. A drachm of liquor potassæ in water was given, and some strong coffee; subsequently a quarter of a grain of morphia was injected hypodermically, and an ounce of castor oil was administered. Considerable delirium was manifested, for which the morphia was given; she then slept soundly for the remainder of the night.

On the following day patient expressed herself as feeling quite well. The bowels acted freely; she passed water without difficulty; and, although the pupils were still dilated, they responded well to light. She left the hospital on the same day. Patient's father was said to have taken a dose of the mixture at the same time as his daughter, and to have

been much more severely affected by it. He was treated at home.

Case 2.—Opium Poisoning.

Peter W., aged sixty-one years, a somewhat feeble and aged-looking man, was admitted on February 11, 1879, under the care of Dr. Silver. He had lately been drinking heavily, and on the date of admission, after a prolonged debauch, and, according to his own story, after a quarrel with his wife, he procured from a chemist about an ounce of tincture of opium and swallowed the whole of it. He went to bed, and his friends, being alarmed at his strange behaviour, brought him to the hospital. When admitted, about an hour after taking the opium, he was excited, spoke incoherently, and walked unsteadily. He stated that he had taken opium and was determined to die. His pupils were contracted to the size of a pin's point; his pulse was strong and rapid; his skin was bathed in profuse perspiration. The stomach-pump was at once used, and the contents of the stomach were evacuated; the material smelt strongly of opium and alcohol. Strong coffee was then given. He continued delirious for about an hour after this, and then became extremely drowsy, and was kept awake with great difficulty. The usual active treatment was adopted, patient having been kept walking about for three hours. He was then put to bed, and awakened every fifteen minutes, as his breathing was stertorous and unconsciousness profound. A full dose of castor oil was administered, and strong coffee and brandy were given at intervals. The following day he complained of great thirst, his tongue was dry and baked; the pupils were still firmly contracted, and the drowsiness continued. The bowels were freely opened, and he was placed on a liquid diet. On February 13 his countenance was anxious and had a frightened expression; his hands were tremulous, and he had the usual hallucinations of delirium tremens. The pupils remained firmly contracted; the pulse was 140, weak and irregular; and his temperature was 100°. Chloral hydrate and bromide of potassium were administered every four hours, and after a stay of two days in the hospital he was removed to the infirmary of the House of Detention, where he remained for a week under treatment. The case is interesting as being one in which the action of the opium—the dose of which, nearly eight grains, was a large one for a man of his physique and age—was modified by the amount of alcohol taken.

Case 3.—Strychnia Poisoning.

Eliza M., aged twenty-five years, married, was admitted on April 28, under the care of Dr. Pollock. The history of her case was as follows:—After a quarrel with her husband, she had procured the contents of a packet of vermin powder containing about ten grains of strychnine, and had spread it on some bread-and-butter and eaten the whole. From her subsequent statements it appeared that for a few minutes after taking the poison she felt no ill effects. She was able to go to her own room, lock the door, and lie down upon the bed. About ten minutes after doing this her sister came to the door and tried to enter the room. Patient heard her and attempted to get up, but a strong spasm prevented her from getting out of bed, and caused her to be in extreme pain. The spasm lasted some minutes, and during that time she was quite unable to speak or perform voluntary movements. On the relaxation of the spasm she got up and opened the door, and vomited freely. Several other similar tetanic attacks followed at rapidly shortening intervals, and she was then brought to the hospital. When admitted she was conscious, and was able to give some account of the poison she had taken; but while speaking she became convulsed, the extremities being first affected, and the trunk then entering into a state of opisthotonos; the jaws next became locked; and lastly there was spasm of the glottis, the breathing and respiratory movements resembling those of a child with croup. This spasm lasted three minutes, and between that and the next, which occurred in a minute or two, patient appeared much exhausted, but quite conscious. The slightest touch hastened the onset of the convulsions. Chloroform was administered without delay during a spasm, with the effect of at once allaying the rigidity, which disappeared from the different parts in the same order as its appearance. The use of the stomach-pump was inadmissible on account of the firm closure of the jaws and spasm of the glottis; but immediately after the use of the chloroform very free vomiting ensued. It was found necessary to keep her under the influence of the anæsthetic for five hours, as, whenever an attempt was made to leave it off, and patient approached consciousness, spasm of the glottis came on. The pupils were at one time unequally dilated, and there was external strabismus of both eyes; the pulse also became very weak and irregular; and the skin was moist and hot (temperature 100°). For the depression, nutrient enemata with brandy were frequently injected. When the chloroform was withdrawn she complained of great soreness in the back and limbs, and of extreme prostration, but there was no recurrence of spasm. She vomited frequently, and the sickness occurred at intervals during the next two days; the bowels were also freely opened by enemata of castor oil. On account of the sickness, nutrient enemata had to be continued, and ice with brandy and soda-water were given by the mouth. The treatment of this case by chloroform inhalation was so satisfactory that it was not considered necessary to try any of the other usual remedies. Patient was discharged at the end of a few days quite convalescent.

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Medical Times and Gazette.

SATURDAY, MAY 31, 1879.

THE HAMPSTEAD SMALL-POX HOSPITAL CASE.

The hearing of this case was concluded, and judgment given, on the 22nd inst. Our readers will remember that an action was brought last year against the managers of the Metropolitan Asylums District by Sir Rowland Hill and two other gentlemen residing at Hampstead, for establishing a Small-pox Hospital near their residences there, and thus exposing them to consequences which amounted to a nuisance. The action was tried before Baron Pollock, and the jury, after a long and careful trial, found that the Hospital was a nuisance *per se*, and that, at all events, if not a nuisance *per se*, it was made one by the absence of due care on the part of the managing authorities. The judge, after full consideration, affirmed the verdict, and gave judgment for the plaintiffs, granting an injunction against the maintenance of the Hospital so as to be a nuisance. The defendants appealed, and applied to the Queen's Division of the High Court of Justice for a new trial, on the ground that the verdict was against the evidence, and had also been founded on misdirection,

especially as to what constituted a nuisance. The application was argued before the Lord Chief Justice, Mr. Justice Mellor, and Baron Pollock, and on the third day of the hearing the Court decided that the rule must be absolute for a new trial. The Lord Chief Justice said the jury were called upon to pronounce an opinion on two main questions: whether the hospital was in itself necessarily a nuisance, that is, a nuisance on which the plaintiffs would have a right of action; and whether, assuming that the Hospital, whether in itself a nuisance or not, was protected by Act of Parliament, the management of it was so negligently conducted, with such a disregard of the requisite precautions, that it became a nuisance, of which the plaintiffs would have a right to complain. The Court thought that the finding of the jury on the second question was "not satisfactory." The Lord Chief Justice would not say that it was clearly wrong, but it seemed to him so doubtful that the case ought to go to a second trial. And, if the jury had made a mistake on that question, it shook the confidence of the Court in the finding on the first question. One question could not be considered without going into the other, and therefore the whole case had better be reconsidered. The Court held that the jury should be directed to consider whether the presence of the Hospital creates a real danger to the health of the occupiers of the adjacent residences; and that the question must be put specifically with reference to each of the plaintiffs, as the answer depends on the degree of proximity of their respective residences. It would not be enough that there was an apprehension of danger, nor that it has produced a diminution in the value of the property, unless the presence of the Hospital created real evils capable of producing real danger, and consequently a disturbance of the plaintiffs' enjoyment of their residences. The two other judges seem to have agreed with the Lord Chief Justice, though Mr. Baron Pollock's opinion is by no means clearly expressed in the public reports. The result was an order for a new trial. This, we must venture to think, will be "not satisfactory" to the public. Baron Pollock declared, in the course of the hearing, that "he never saw a better jury than the jury in this case, nor one which took greater interest in a case, or took greater pains to understand it"; and he said that he had quoted to the jury "Mr. Justice Blackburn's accurate definition of a nuisance." The Court of Queen's Bench stopped the plaintiffs' counsel from arguing the case on the matters involved in the second of the two issues, because they then thought, with Baron Pollock, that by reason of the finding in the first the second had become immaterial. Yet they afterwards heard counsel for the defendants on that issue; and they ordered a new trial on the ground that the finding of the jury upon it was "not satisfactory." The only thing that is satisfactory about the matter is, that the plaintiffs appeal against the order; and, the defendants having already an appeal pending on the question whether, even granting the findings of the jury, there is any right of action, the whole case will come before the Court of Appeal. That Court will have before it all the disputed questions: whether there shall be a new trial, or whether the findings are satisfactory, and, if so, what is their legal effect; and whether, under the Act, the maintenance of the Hospital is lawful or unlawful as a nuisance. And these questions will be argued before the full Court on, we believe, June 16.

THE REPORT ON PYÆMIA, SEPTICÆMIA, AND PURULENT INFECTION.

At the final meeting of what has been a very busy session, the Pathological Society of London received the Report of the Committee appointed to investigate the subjects of Pyæmia, Septicæmia, and Purulent Infection. This Report may, in a certain sense, be regarded as a posthumous work of the late lamented President of the Society, for it will be recollected that it was at Dr. Murchison's suggestion that the investigation was undertaken, and it was mainly by his exertions that the Committee were supplied with a grant of money from Government towards the expenses of the inquiry. The members of the Committee—Mr. Marcus Beck, Dr. Greenfield, Mr. Macarthy, and Dr. Ralfe—had the co-operation of a large number of gentlemen connected with the different hospitals of London. Their labours have extended over eighteen months, and have resulted in a Report of so voluminous and detailed a character that no more than an abstract could be read before the Society. The full Report will appear in the next volume of the Society's *Transactions*, and also, in consideration of the grant from Government, among the reports of the Medical Officer of the Local Government Board.

But the mere text of the Report, elaborate and voluminous as it may be, is yet very far from representing the full amount of time and labour bestowed by the Committee on their undertaking. They made careful microscopical examinations of the various organs of the cases reported, and exhibited before the Society a large number of beautiful microscopical preparations, drawings of some of which will illustrate the printed Report.

Pending the publication of the full text of the document, the following summary of its contents, as indicated in the abstract read before the Society, will be of interest to our readers. Of the main divisions of the Report, the first gives statistical details as to the occurrence of the diseases under investigation in the chief metropolitan hospitals during the last ten years, with the object of detecting any causal connexion between such occurrence and the state of the weather or the prevalence of other diseases, etc. The great want of uniformity in the methods of recording cases at the different hospitals was felt on this occasion, as it often has before, to be a serious hindrance in the preparation of this part of the Report.

In the second division there are clinical and pathological details regarding 156 cases communicated to the Committee. Of that number, 29 are regarded as cases of septicæmia, the other 127 as cases of pyæmia; the occurrence of metastatic or secondary abscesses being regarded as the distinctive features of the latter condition. The twenty-nine septicæmic cases are again subdivided into two groups—(1) those of "septic intoxication," and (2) those of ordinary "septic infection." The Committee would apply the term "septic intoxication" to cases where the dose of septic poison is so great as to cause death within a few hours after its absorption—to a condition, in fact, similar to the rapidly fatal one produced in animals by the intra-venous or intra-peritoneal injection of septic fluids. Such a condition would appear to be rare in man, only two such cases being included in the Report. The Committee make an approximate estimate that for the production of "septic intoxication" in man, as much as two or three ounces of putrid fluid must find entrance into the blood at one time. For this result there must therefore be a large quantity of septic material to absorb, and the absorption must be very rapid. Such conditions are rarely present, except when there is a large wound difficult to drain, as in the peritoneum after ovariotomy, or in wounds of large joints. The Committee think that if cases of rapid death after ovariotomy had been reported to them, the small number of cases of "septic intoxication" would probably have been augmented. The fatal septic poisoning in such cases ensues very soon—a day or two—after the production of the wound, and the chief morbid appearances found post-mortem are similar to those found in ordinary septic infection

—viz., a fluid state of the blood, sub-serous hæmorrhages, and softening of the spleen. Under the heading "septic infection," the Committee group the ordinary cases of septic poisoning without metastatic abscesses, that is, ordinary septicæmia. In this disease there is a truly infective process. The poison, once absorbed, multiplies in the organism, and the blood of an infected animal may, on inoculation, start a similar condition in another animal. The effects of the poison are not proportionate to the dose; and the development of the disease is slower, and the duration longer, than in septic intoxication. There would seem, however, to be some essential difference between these two forms of septic poisoning, as first suggested by Koch. Organisms may be found in the blood in all cases of septic poisoning.

The 127 cases of pyæmia detailed in the report are divided into eight groups, viz.:—1. Cases where there was no evidence that the secondary inflammations were due in any way to embolism: these again are subdivided into (*a*) cases where visceral disease was absent, and (*b*) cases where visceral abscesses were present, but where there was no evidence of thrombosis or of softening clot to be found. 2. Cases where thrombosis had occurred, but where it was apparently due to the condition of the blood. 3. Cases where there were thrombosis, softening of the thrombus, and secondary abscesses in other viscera, but not in the lungs. 4. Cases where there were venous thrombosis and softening of the thrombus, with secondary abscesses in the lungs, and in other viscera or tissues. 5. Cases in which there were venous thrombosis and softening of clots, with embolic abscesses in the lungs only. 6. Cases where there were thrombosis and softening of clots without any embolism. 7. Cases of pyæmia secondary to acute necrosis of children. 8. Cases of pyæmia secondary to endo- or myo-carditis. The association of "arthritic pyæmia" with inflammation of the genito-urinary tract is found to be very frequent.

The next section of the Report gives the results of the examination of the blood and of the urine in cases reported. The blood had been examined in eighteen cases of pyæmia and septicæmia; and bacteria had been detected in most of the cases, though not in all. Six different forms of bacteria were met with—simple jointed filaments, ovoid bodies, large spherical bodies, dumb-bell bacteria, rod-shaped bacteria, and protoplasmic masses corresponding to large micrococci in size and appearance. In most of the cases the bacteria present comprised several of these varieties of form; but no relation could be traced between the different varieties. The Committee are of opinion that the presence of these organisms in the blood was to be regarded rather as evidence of the existence of the diseased condition than as the original cause of the blood-poisoning. The white blood-corpuscles were found increased both relatively and absolutely, but in varying degrees in different cases, and according to no obvious general rules.

In regard to the urine, no special chemical characters were detected beyond those commonly found in other acute forms of pyrexia. The organic solids were slightly increased, while the inorganic solids were somewhat diminished, chiefly as regards the earthy phosphates. This diminution might be due to a lessened ingestion of food, or possibly to the consumption of some of the waste material in the blood by the organisms. Potash salts were found to be excreted in less than the normal quantity, although it had been expected they would be increased on account of the destruction of the red blood-corpuscles.

In the last section of the Report there are descriptions of the microscopical appearances found in the various tissues and organs of the cases brought under notice—a branch of their inquiry to which the Committee had directed much attention. In a great number of cases spherical organisms, micrococci, were found in most of the organs, and often also in the bloodvessels, notably in the capillaries, many of which were completely blocked by the organisms. In some instances the vessel appeared to be ruptured or partly absorbed, and the micrococci were seen to be extended into the contiguous tissues. In the larger vessels they formed a layer of uniform thickness, lining the walls. Their distribution in the different organs, though very general, was also very unequal. In only two cases were true bacteria of the rod-shaped form found in the tissues after death, although in several cases they had been detected in the blood during life. And one of these two cases was a doubtful instance, the bacteria being observed in the glomerulus of a kidney in which decomposition had begun. But in the other instance they were found very soon after death in the heart of a patient showing myositis. As to the real relationship of these different kinds of organisms to one another, and to the septic or pyæmic conditions, the Committee refrain from offering any very decided expression of opinion, though they are inclined to believe that for the development of these organisms in the living body certain chemical changes may be necessary, and that these changes may be induced by the blood-poisoning. Hence the presence of the organisms would be regarded as an evidence of the existence of the blood-poisoning, not as the efficient cause of that condition.

In regard to the bloodvessels themselves, pathological changes were observed in almost all cases. As a rule the endothelium was detached to a greater or less extent, being separated *en masse* in some places. In many cases the deeper layers of the intima were hypertrophied as if from endarteritis, so that the lumen of the vessels was diminished. In some cases the external coat was hypertrophied, and both this and the hypertrophied intima had in many cases undergone degeneration. These changes were not observed in the veins or venules, but in these thrombi were very common. The thrombi were composed mainly of fibrin and leucocytes; and though in some cases they entirely blocked the blood-channel, in other cases an open passage was left at one side. Minute abscesses were occasionally found in connexion with, and apparently dependent upon, the thrombi.

It will be recognised at once that the Committee had a most difficult and laborious task to accomplish, and there can be only one opinion as to the labour and care they have devoted to the inquiry. It would be premature to offer any criticism on a Report the full text of which is not before us, but we think the abstract of it now made public dispels the hope, if any such existed, that the Report would afford a complete settlement of some of the important and difficult questions connected with the class of diseases under investigation. The Report will, however, be of great value if it form a secure and definite basis of operations for the further exploration of this interesting but intricate region of pathology.

THE ECONOMICS OF THE CALCUTTA HOSPITALS.

WHAT must appear to the profession at home a very dull and weary controversy, seems for many months past to have given rise to considerable excitement among the medical staff in Calcutta. It is generally held by the laity that, in regard to hospital diets, doctors are inclined to be extravagant. It would, however, appear that, on this point, the Government of Bengal long pursued a very liberal course, at least in the case of the great Calcutta hospitals, allowing the superintendents nearly everything they asked for with the approval of the Surgeon-General. It is evident, nevertheless, that the present Lieutenant-Governor, Sir Ashley Eden, entered upon office embued with a large measure of the popular prejudice alluded to above. He

accordingly pitched upon two hospitals, and, after inquiry, decided that the superintendents, despite the fact that their expenditure had been sanctioned by the medical authorities, were extravagant. At about the same time, and, as it appeared to the non-instructed public, in consequence of the Surgeon-General's advocacy in favour of the denounced hospitals, the Lieutenant-Governor ceased to consult that medical authority and instituted a new appointment—Surgeon-General to the Bengal Government—a measure which, seeing that it creates a new outlay of £2800 per annum, does not appear to be a very happy method of inaugurating a system of medical retrenchment. As we have not the papers before us, we have, at present, nothing to do with the cases of the General and Campbell Hospitals, except in their bearing upon what followed. A Committee was formed, consisting of three civilians and four (afterwards increased to six) medical officers, who were, at starting, instructed by the Lieutenant-Governor that the most conspicuous instances of apparently extravagant administration were found in those two hospitals; but to this he added an expression of his apprehension that "none of the metropolitan medical institutions were free from waste and pilfering of expensive drugs." He also desired the Committee to institute a strict inquiry into the expenditure of what he terms "dietary articles." Thus furnished with a text, laid down with rather exceptionally and objectionably authoritative decision, considering that it would have been well if the Committee could have been permitted to enter upon their inquiry without being told that his Honour had well-nigh made up his mind on the issue, they proceeded upon a very laborious inquiry, the result of which may be summarised in the facts that they have decided that the predecessors in office of four of the medical members of the Committee were more or less extravagant, and that they have retorted upon the Government, who sentenced them to hold "twenty-one official meetings," by handing in to the Bengal Office "LXIX. Resolutions," under the operation of which, they appear to hope, the hospitals of Calcutta will begin to work liberally without the waste of a single bread-crumb.

We cannot enter upon a very full review of the facts of this case, seeing that we have not before us the explanations of the officers upon whose administration blame has been thrown by their acting substitutes in their appointments, the medical members of the Committee; but we have received a series of articles, published in the *Indian Daily News*, in which the Committee's report and the Lieutenant-Governor's resolution thereupon are reviewed in a style of masterly criticism. The main facts at issue appear to be these. Certain experienced medical officers in charge of hospitals considered the diets inadequate, and they found that the value of silver became deteriorated and that the cost of food rose. Upon due representation of these facts to higher authority, committees, presided over by administrative medical officers, were duly appointed to inquire into each reported want as it arose, and, upon these reports, the head of the Medical Department recommended, and the Government granted, higher rates. These authorised rates, as is fully set forth in the papers before us, *were never exceeded*; still, the medical officers who dieted their sick within these rates are charged by the Committee and the Government with culpable extravagance—he being, as it would now appear, extravagant who lives scrupulously within his income, spending his money, as far as his judgment enables him to do so, to the utmost possible advantage! Some idea of the mode of reasoning by which the Committee have decided to condemn the administration of the predecessors in office of several of them may be formed by taking the following facts:—Dr. Payne, the Senior Medical Officer on the Committee, who, since his report under notice was submitted, has been appointed Surgeon-General to the Bengal Government, was in 1870, as he still is, Superintendent of the European Lunatic Asylum. In that year he was a member of a committee who recommended a diet allowance of twelve annas (about eighteenpence) per diem for each European patient in the Medical College Hospital, that being the rate allowed at the General Hospital and at his own Asylum. His Committee are now quite astonished how such an extravagant rate could have been fixed, and show that the European lunatics are now dieted at the rate of four annas and a quarter per diem. While Dr. Jones, also a member of this Committee, shows that at the General Hospital, next door to the Asylum, good mutton cannot be obtained at the present contract price of four annas and a quarter per diem. Well may the Committee admit that, at present, economy may possibly be carried a little too far, and well may the *Daily News* express anxiety to learn how Dr. Payne has managed to bring his European diet-rate so low, and by what process of economy he feeds his English lunatics liberally at a daily cost of 6d. a head!

It is probable that the physicians whom the Committee have condemned, acting under a liberal Government and having liberal notions in dieting their sick, were not gifted with that economy which narrow means and the constant apprehension of the censure of Government will, doubtless, teach their successors; but when the Committee and Sir Ashley Eden raise the question, "What is true economy in providing for the sick?" it is probable that the opinion of the profession and the public may reply, with Sir Roger de Coverley, "There is much to be said on both sides," and may proceed to inquire whether the newly made Surgeon-General is not overpaid at the rate of £2800 a year for the duty of suggesting economical reforms to Government.

This report shows very painfully that "doctors differ" even upon the very important question of what is true economy in the dieting of sick men. Some may consider that it is sufficient to remove the patient's disease anyhow, sending him out weak and emaciated, a burden to society, incapable of labouring for his own and his family's support, and liable to return in a week to the hospital twice as ill as he was at first, and with a prospect of remaining under treatment four times as long. Others may hold that, if he comes to them, as most of the Calcutta hospital patients do, a famished wretch, whose disease is more starvation than fever or dysentery, he is best cured if he leaves the house well nourished and in thorough working condition. The Lieutenant-Governor and his immediate medical advisers are of opinion that hospital patients ought not to be feasted upon viands "to which they have not been accustomed." The majority of the profession are agreed in thinking that a large proportion of the sickness which prevails among the extremely poor is due to the circumstance of their not being "accustomed" to a generous diet. The Committee and the Lieutenant-Governor give great prominence to the fact that sweetmeats, cigars, jellies, pomegranates, and champagne were, under the old system (occasionally), allowed to native sick. It would be hard to say why nature affords dainties for man's use if they are not, when considered needful by physicians of great experience, to be allowed to the suffering and the dying. As soon as he is condemned to be hanged, the Indian criminal generally asks for sweetmeats; and it is not probable that even Lord William Bentinck (whose anxiety for retrenchment obtained for him the name of the "Clipping Dutchman") ever denied to a doomed wretch this luxury, the cost of which is one or two halfpennies. At present the Calcutta hospitals are working far more economically in the way of diets than they did of old. This appears to have been effected by allowing the

patients none but cheap and inferior meat (*vide* the evidence of Dr. Jones, of the General Hospital, cited above), and by withdrawing all stimulants with the exception of rum (Committee's Report, *passim*), which, as sold in Calcutta, is a bad and deleterious liquor, far worse than London gin. We earnestly trust that this most vitally important question will be taken out of the hands of the Lieutenant-Governor, and be submitted to the judgment of some competent authority, such as the Military Sanitary Commission, not subservient to local authority. We believe that, hitherto, Indian medical men have not worked under an impression that he who screws his patients most will least incur the disapproval of the authorities; and we think that the present Lieutenant-Governor will best consult the dignity of his own Government and the welfare of the multitude of sick who fill his hospitals—in whose recovery he is doubtless warmly interested—by not allowing such an impression to spread from the physicians in Calcutta to the profession and public at home.

THE WEEK.

TOPICS OF THE DAY.

THE second act of the now celebrated Hampstead Hospital case has been brought to a conclusion, and has resulted in a direction for a new trial. The reasons given by the judges for arriving at this decision are too lengthy to be given fully, but they are noticed elsewhere in our columns. The plaintiffs will have the weary and expensive work of fighting the battle over again; though perhaps only partly, as it is stated that they will appeal against the order for a new trial, and the defendants already have an appeal pending on the question whether, even accepting the findings of the jury, there is a right of action. It will not be wondered at that, in the face of this new flood of litigation, the plaintiffs' counsel endeavoured to obtain from the Lord Chief Justice a concession as to the costs of these actions, the expense of which would, he averred, be so great that private persons could hardly be expected to bear them; while, on the other hand, the managers of the Hospital were supported by a public board; and he succeeded in securing an assurance that the Court would reserve the power of dealing with the question of costs after the second trial had been held. There may be just a grain of hope in the minds of the plaintiffs that, after the decision of the public auditor in the case of the Metropolitan Board of Works, the Asylums Board may be somewhat chary of incurring avoidable expense. It will be remembered that in a recent audit of the accounts of the Metropolitan Board of Works, the auditor appointed by the Lords Commissioners of her Majesty's Treasury, upon reading an item of over £16,000 charged as expenses incurred in the promotion of the Bills introduced into Parliament by the Board last session for the better supply of water to the metropolis, pronounced the expenditure to be illegal, and surcharged the Board the £16,000—a decision against which there is no appeal. The thinking public will begin to be of opinion that it might be as well if this universal power of appealing were somewhat curtailed in our present legal system. To the ordinary capacity it seems a trifle farcical to elect an intelligent jury for the trial of a particular case, and afterwards to invite three judges to cast about for loopholes to set aside their verdict, because the loser is dissatisfied with the result, and is rich enough to risk the chance of a second body of jurors disagreeing with the opinions of their predecessors. In this instance, the jury which tried the case, under the careful supervision of Baron Pollock, are not shown to have made any egregious error—were, in fact, declared to be an exceptionally intelligent body of men; and it can only, therefore, be regarded as a slur upon our boasted system of trial by jury, that it should be considered necessary to set aside their verdict, and inflict upon the unfortunate plaintiffs the anxieties and expense of a new trial.

At a special private meeting of the Liverpool Water Committee, held last week, the sub-committee's report in favour of the Vyrnwy scheme was adopted, and was ordered to be submitted to a special meeting of the Town Council. This plan, it will be remembered, is to dam up one of the sources of the river Severn. The expense is estimated at £1,189,700 for the first instalment of 13,000,000 gallons a day. It was decided to ask the Manchester Corporation upon what terms a temporary supply could be obtained from Thirlmere pending the completion of the Liverpool scheme.

Our contemporary *Nature* says:—"The first public Act passed by the United States Congress during the present session was one making an appropriation of $200,000 for the construction, under the direction of the Secretary of the Treasury, for the National Board of Health of a vessel provided with suitable refrigerating apparatus for the purpose of determining the possibility of destroying the yellow fever infection by intense cold. The Act, as first introduced, had special reference to the apparatus of Professor Gamgee; but as now passed it is within the power of the Secretary to select any device that will, in the opinion of the National Board of Health, best answer its purpose."

A deputation last week waited upon the President of the Local Government Board to protest against the salt trade of this country being included in the Noxious Gases Bill. Amongst the deputation were many of the large salt proprietors of Cheshire, and they called attention to the fact that in the manufacture of salt no noxious vapours were produced; the district round the salt works was one of the most salubrious in the kingdom, and there was no damage to agriculture. Several reasons were adduced why the salt trade should be omitted from the Bill; amongst others it was shown that the sale of the product might be considerably injured abroad if such a course were adopted. Mr. Sclater-Booth assured the deputation that there was no wish to cast any imputation upon the salt works as being productive of unhealthy gases, or of causing damage to property. The Government would do nothing which would cause mischief to such an important trade as the salt trade, but he must say that some of the Commissioners had stated that there was a strong case for including salt works in the Bill. The statements now made should, however, be fully considered before finally settling what was to be done; and with this assurance the deputation withdrew.

At a recent meeting held at Hawarden, under the presidency of the Rev. S. E. Gladstone, to advocate Sunday closing, an extraordinary statement was made by Dr. Moffatt. He explained that no one would be more pleased than himself to see the evils of drinking put down, but it must be borne in mind that there were greater evils than beer-drinking. He referred to the increase in the consumption of laudanum and opium since public-houses were closed earlier. Even in that parish he had asked a druggist if he found any increase in the sale of laudanum since public-houses were closed at ten o'clock, and the reply was that in one village alone he weekly sold two quarts of laudanum. On further inquiry he had discovered one family which spent 10s. weekly in laudanum alone. If a man did not get sufficient beer to send him to sleep his wife was obliged to give him a dose of laudanum; he knew one case where the husband actually thrashed his wife because she had not procured him his usual dose of opium. Nevertheless, resolutions were passed approving of Sunday closing.

On Saturday last the Home Secretary laid the foundation-stone of a new block of artisans' dwellings about to be erected by the Victoria Dwellings Association at Stroudvale, Islington. The first block of buildings erected by this Association, previously styled the Metropolitan, adjoins Battersea-park, and was formally opened by the Earl of Beaconsfield in June, 1877, on which occasion he was specially charged by her Majesty to express her hopes for the success of the enterprise, and to announce her sanction to the change of name. The present building is not intended to accommodate the artisan in the receipt of good wages, but is rather intended to ameliorate, if possible, the less fortunate class of labourers who earn a precarious living. In addressing the assembled company, Mr. Cross remarked that it had been stated that the Artisans' Dwellings Act had not borne the fruit it was expected to bear, but that statement he entirely denied. A vast amount of money had been spent by the Metropolitan Board of Works in the City of London in clearing the ground, and now people are taking the work up, and within the next two or three years these plots of ground would be covered with houses similar to those about to be erected upon the spot on which they were assembled. The inscription upon the foundation-stone of the new block is as follows:—"Victoria Dwellings Association.—Beaconsfield Buildings.—This stone was laid on May 24, 1879, by the Right Hon. Richard Assheton Cross, M.P., her Majesty's Principal Secretary of State for the Home Department, who then named the whole group of buildings erected by the Association after her Majesty's Prime Minister, the Right Hon. the Earl of Beaconsfield.—John Walter, Esq., M.P., chairman; Charles Barry, Esq., architect." It may be stated that at the last meeting of the Metropolitan Board of Works a report of the Parliamentary Committee was adopted, which stated that, having further considered the Artisans' Dwellings Act (1868) Extension Bill, they were of opinion that the vestries and district boards should be, as now, under the Act of 1868, the authorities to carry out the provisions of the Bill in the first instance, but that in the event of any local authority neglecting to carry out the duties imposed upon it, the Metropolitan Board of Works should be empowered to do what was necessary, and to charge the defaulting local authority with the cost.

Mr. Morgan, Local Government Board Inspector, held an inquiry at the Leamington Town Hall, last week, respecting an application from the Corporation to borrow £11,000 for new waterworks, and £5500 for new sewers. It was stated that the artesian well works, which are answering perfectly, yielding 2,000,000 gallons daily, if necessary, have already cost £21,700, and £11,000 further is required to meet all attendant expenses. The new sewers are to prevent flooding in the lower parts of the borough during sudden storms. At the termination of the inquiry Mr. Morgan intimated that the Board's decision would be officially communicated to the local authorities.

Public attention is being called to the reprehensible manner in which the Canal Boats Act is being ignored by the constituted authorities. The strong case made out by Mr. George Smith for an amelioration of the condition of the canal boatmen and their families can scarcely have been forgotten; yet scarcely a single boat registered according to the Act is to be met with at the numerous metropolitan wharves, and the state of matters in the provinces is little, if at all, better. The consequence is that a large class of unfortunate people are growing up in misery and immorality in spite of the action of the Legislature to improve their condition.

The Corporation of Bristol have had a proposal submitted to them by their engineer to dispose of the sewage of the city, and withdraw it from the river Avon by conveying it in a tunnel, ten miles in length, to the Bristol Channel; the construction of the necessary works is estimated not to exceed the sum of £300,000.

THE PHARMACEUTICAL SOCIETY AND THE WOMAN DIFFICULTY. At the thirty-eighth annual general meeting of the Pharmaceutical Society of Great Britain, which was held on the 21st inst., the question whether women shall be admitted into the Society was again discussed. It has been a "burning question" with the Society for some years, and has frequently occupied the time and attention of the Council as well as of the Society, and it still remains unsettled. Last year the question was discussed at great length, and somewhat warmly; and, on a division being taken, fifty-nine votes were given one way, and fifty-seven the other, and it was supposed that the majority was on the women's side. But, after the meeting had been adjourned, a question was raised as to which side really had the majority. The President was not sure which of the tellers handed in the larger of the two numbers, and rather suspected, moreover, that the tellers had told for the wrong sides, while the tellers themselves both believed that a mistake had been made. No one was able to solve the mystery, and at the adjourned meeting the question was, for the time, settled by agreement in the following way. The President put the motion for "the admission of all persons duly qualified (irrespective of sex)" into the Society; no one voted for it, and the President gave his vote against it. At the next meeting of the Council three ladies applied, and were proposed, for election—one as a member, and two as associates; the Council divided equally on the motions, and the President in each instance gave his casting vote against admission. This year matters were managed in a much more business-like way. Mr. Wade, the champion of the women, moved that "All persons duly qualified (irrespective of sex) being eligible for admission into the Society in accordance with the by-laws thereof, this meeting is of opinion that ladies should not be excluded from participation in the privileges of the Society"; and Mr. Vizer, again, moved an amendment expressing the opinion that "inasmuch as registration under the Pharmacy Act secures all trading rights to persons so registered, and membership of the Pharmaceutical Society in no way increases those rights, it is unnecessary, so far as females themselves are concerned, and undesirable on the part of the Society, to introduce so complete a change in its constitution as would be involved by the admission of females as members, associates, apprentices, or students of this Society." After a long discussion the amendment was put to the meeting, and on a show of hands the President announced that 65 were for, and 66 against it." A division was then called for, and the result was a majority of three in favour of the amendment, 81 votes having been given for and 78 against it. It remains to be seen how the new Council will act should any duly qualified woman again apply to be elected as member or associate, the power of election into the Society being vested in the Council.

BENZOATE OF SODIUM AS AN ANTIPYRETIC AND ANTISEPTIC. This drug is being much used in Germany at present, and it has a sentimental, apart from its scientific interest, as a remedy which was given as a prophylactic against diphtheria, though, alas! unsuccessfully, in the late epidemic among the Ducal family at Darmstadt. The Princess Alice, indeed, is said to have taken it even during her illness. The ground for its administration was the fact alleged by Graham Brown, working in Klebs' laboratory at Prague, that an

animal "saturated" with it could not be inoculated with diphtheritic membrane.

Benzoate of sodium can be taken in doses of ten, fifteen, or twenty grammes per diem without unpleasant effects, even if long continued. It reduces fever less rapidly than quinine and salicylate of sodium, but the effect is said to be more persistent. Klebs (*Prager. Med. Wochenschrift*, iv. Jahr., Nos. 3, 5) has reported a case of diphtheria in a child which appeared to recover under its use, and Lezterich states (*Berlin. Klin. Wochenschrift*, No. 7, 1879) that of twenty-seven cases under his care (three adults, twenty-four children) all recovered but one. Hoffmann (*Berlin. Klin. Wochenschrift*, No. 16, 1879) reports twelve cases of diphtheria (four adults, eight children), all of which ended satisfactorily. The doses given were in the proportion of six grammes daily to a girl of eleven, five grammes to a child of three, and ten grammes to a woman of twenty-five years.

Hoffmann and Klebs have both seen good results from the benzoate in erysipelas. In acute rheumatism Senator has stated that it has succeeded in some of his cases where salicylic acid had failed; but Hoffmann (*loc. cit.*) has seen no good from it whatever, even after doses of ten grammes had been continued for over a week. In *chronic* rheumatism even Senator has obtained no benefit from its use.

Of other affections in which the benzoate has appeared to be useful, Hoffmann refers to albuminuria, both acute (post-scarlatinal) and chronic. In three cases the excretion of albumen diminished remarkably during its exhibition.

Lastly, Petersen (*Centralblatt Med. Wiss.*, No. 10, 1879) relates a case of puerperal fever in a patient of twenty-five which seemed to be hopeless. The temperature was 40° Cent., pulse 140 to 150, and the general condition very bad. He gave at first ten grammes benzoate per diem, and reduced the pulse to 130, with improvement of the symptoms as a whole. With the above dose he at last reduced the temperature to 39·5° Cent., and the pulse to 120, and the patient was able to sleep. On increasing the daily amount to fifteen grammes the effect became decided: the temperature fell to 38·5° Cent., and the pulse to 104, and complete recovery ensued.

We do not lay too much stress on any of the facts just mentioned, but they seem to us at least to warrant a further careful trial of the benzoate in similar and allied diseases.

INSANITY IN SCOTLAND.

The Medical Superintendent of the Stirling District Asylum (Mr. James Maclaren), in his tenth annual report, for the year 1878, calls attention to the cumulative nature of the insanity in the district as a matter of grave interest to all concerned. The admissions now, as compared with the early years of the Asylum, are growing steadily larger, and apparently are not due to any one kind of insanity preponderating over another; there are simply more cases of all kinds, and there is nothing whatever in their nature or history to point them out as in any way exceptional, or of a kind that may not be constantly occurring in the district. Neither is there any reason for hoping that the flow has reached its full height. During the first two years of the Asylum's existence the average number of patients resident was 195; during the last two years the average number has been 286. There has probably been no year, Mr. Maclaren remarks, in which the admissions to North British asylums will have been studied, and their histories scanned with greater care, than in the past twelve months. The dread commercial disasters of this period, leading ultimately to widespread want and misery among the classes from which their inmates are drawn, possess many features of sad and painful interest, and certainly one of the chief of these has been the question, how far they have affected the amount of insanity in the country. As far as the admissions to the Stirling Asylum are concerned, it appears that this influence can be traced in only two cases. Both of these were men who had lapsed into melancholia under the pressure of threatened poverty following upon a total loss of their means. They are both, however, reported to have been men of weak, facile temperaments, likely to have succumbed to a severe shock of any kind. Should the statistics of other asylums in the North show similar results to those of this one, it would seem that the stern lessons of loss and poverty are certainly less to the masses than the indulgences and dissipation which too frequently attend upon periods of abundant work and high wages. In fact, intemperance and intemperate excesses are met with as contributors to these institutions in a proportion far exceeding any other one cause or series of causes.

COLLEGIATE LECTURES.

Mr. B. T. Lowne, F.R.C.S., will commence his course of lectures on the Physiology of Sensation, in the theatre of the Royal College of Surgeons, on Wednesday next, the 4th prox., at four o'clock. The following is his syllabus of the course, viz.:—Lecture I (June 4).—Recapitulation of last year's course; the kinetic theory of nerve action; various forms of stimulation; changes in the nerve; on the connexion of the nerve-end organs and the higher nerve-centres; on the minute structure of nerves; Schults on the structure of nerves; physical differences between centripetal and centrifugal nerves; Grutzner's experiments; the theory of automatism; evidence to be derived from the section of the cord; the theories of specific resistance and inhibition; the rod and cone layer of the retina considered in relation to the mechanical theory of sensation. Lecture II (June 6).—Sensation considered as a function of nerve stimulation; differentiation of nerve stimulation in relation to differentiation of sensation considered from the point of view of evolution; characteristics of sensation in its most general form; intensity, direction, and quality; order of their appearance, and their relation to nerve stimulation in the eye and ear; comparative simplicity of the intensity factor; great complexity of the nerve changes giving rise to the sensation of direction in the case of vision; the empirical theory of vision; Listing's law. Lecture III (June 9).—Quality of sensation; the cases of colour and tone; different theories of colour; on the development of the colour sense according to the theories of Hugo Magnus, Mr. Gladstone, and Mr. Grant Allen; on the vision of nocturnal animals; structure of the eye in invertebrates; the probable evolution of the retina and the gradual development of the visual organ; the development of the senses and of the sensory organs; internal forms of nerve stimulation; the theory of innate ideas and instinct; volition; conclusion.

THE LONDON WATER-SUPPLY FOR APRIL LAST.

The report of the Water Examiners on the supply of the metropolis during the month of April last exhibits a more satisfactory state of things, which it is hoped may prove lasting. The quality of the water taken from the Thames by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, is stated to have been much better than it has been for several months past. The best water supplied from this source was delivered by the Lambeth Company, and the worst by the Chelsea Company. The West Middlesex Company's water was slightly turbid from inefficient filtration, and it contained dyed fibres. The other Thames waters were efficiently filtered. The Lea water distributed by the New River and East London Companies was efficiently filtered, but that of the first-named Company was not only inferior to the East London Company's

water, but it was actually inferior to the water abstracted from the Thames by the Grand Junction and Lambeth Companies. The deep well water delivered by the Kent and Colne Valley Companies and by the Tottenham Local Board of Health was clear, and of its usual excellent quality for dietetic purposes. The only soft water fit for washing was supplied by the Colne Valley Company. The Lambeth Company have commenced a boring at their works at Ditton, which is now 358 feet deep, with the view of ascertaining the probability of obtaining an auxiliary supply of water from the chalk. At 334 feet a sand-bed was reached, containing water which rose to the surface. The boring is now in green sandy clay, and it is expected that the chalk will be reached in from fifteen to twenty feet more. Should the prospect of getting water prove favourable, the Company intend to sink a shaft and form drifts into the chalk basin. This water, if obtained to the extent of two or three million gallons per day, would be mixed with the Thames water to form an auxiliary supply.

THE HEALTH OF POOLE.

The report of Mr. H. A. Lawton, Medical Officer of Health for the borough of Poole, for the year ending December 31 last, gives the death-rate of the district during that period as 21·80 per 1000, and he remarks that (as in 1877) the greatest mortality over five years of age was amongst persons between seventy and eighty years, a conclusive proof of the healthiness of that part of the country. The high rate of infant mortality he ascribes to great want of care and proper nourishment during the first two years of infant life, added to the large amount of amateur medical practice to which young children are subjected. Mr. Lawton condemns the practice of employing artificial foods for the feeding of infants in place of their natural diet, milk, and alludes to the fact that many of them die of chronic starvation, though well supplied with so-called nourishment in the shape of these advertised compounds. Increasing population has, as usual, rendered the water-supply of the district from wells unsafe, and several have had to be closed in different parts of the town, much to the dissatisfaction of the residents round them, who fail to see that soakage from the more numerous cesspools has rendered them unfit to resort to for water-supply. Mr. Lawton, however, recommends that public hydrants connected with the waterworks reservoir should be put up in closely populated neighbourhoods, and the present pumps abolished. The deaths from zymotic diseases appear to have been few, and, taken altogether, the health of the district appears to be very satisfactory.

CHRONIC ARSENICAL POISONING.

The subject of arsenical poisoning by means of wall-papers, paint, articles of furniture, and wearing apparel, has lately aroused considerable interest in the profession, and a Committee of the Medical Society of London has been formed to collect and classify trustworthy information, with a view to arrive at a more accurate demonstration of the extreme danger arising from this insidious poison. The Committee invite succinct replies to the following questions:—"1. Have you had under your observation, during the last five years, any cases clearly traceable to arsenical poisoning, produced by wall-papers, paint, articles of furniture, or wearing apparel, etc.? 2. Any cases previous to that time? 3. What were the first symptoms that led you to suspect this form of poisoning? 4. State briefly the prominent characteristics of each case. 5. Were there any external symptoms of irritation? 6. How long was it in each case before the patient recovered health and strength? 7. Were any cases fatal? 8. What article contained the poison? What tests were employed to detect its presence? 9. How many cases occurred in men? How many in women? How many in children?" Answers to these questions, or any other trustworthy information on the subject, may be transmitted to Mr. M. A. Morris, 68, Montague-square, Hyde-park, W., hon. sec. to the Committee.

THE HEALTH OF BIRMINGHAM.

The quarterly reports of Dr. Alfred Hill, the Medical Officer of Health for Birmingham, for the periods ending September 28 and December 28, 1878, record a sensible increase in the rate of mortality for the district. This is accounted for by the fact that diarrhœa and scarlatina in the former quarter, and scarlatina in the latter quarter, have been exceptionally prevalent. Scarlet fever, Dr. Hill says, has been known for a long time to occur in the epidemic form with considerable periodic regularity, the average interval between the crests of its so-called minor waves being somewhere about five years. One of these waves has, in Birmingham, possibly now attained to its greatest height. Dr. Hill further remarks that if the Borough Hospital were used as intended—that is, for the isolation of *first* cases—it would be easy to effectually prevent such an epidemic of scarlet fever as that from which the town has recently suffered; but though the Corporation has wisely done its part in establishing and sufficiently maintaining such an institution, it is powerless to remove patients thither, except with the consent of their parents and friends, who, unfortunately, fail to do their part. Never before have children been brought together in such numbers as they are at the present time by Board Schools, and never before, therefore, has scarlatina had the same facilities for rapid spread; and hence the serious and fatal visitation, and the unusual increase in the death-rate.

MEMORIAL TO THE LATE DR. MURCHISON.

It was resolved by the students of St. Thomas's Hospital, at a general meeting held on May 9, that a memorial should be raised to the late Dr. Murchison, as a token of their gratitude for his labours as a clinical teacher; and that all past and present students, as well as others interested in the scheme, be asked to subscribe. If sufficient funds are obtained, it is proposed to place a bust of Dr. Murchison in the hall of St. Thomas's Hospital, or to erect some other suitable memorial. Subscriptions will be received by the hon. secretaries, W. H. Battle and T. D. Acland, at St. Thomas's Hospital. Post-Office orders to be made payable to W. H. Battle, at the Westminster-bridge-road office. Cheques payable to the Murchison Memorial Fund to be crossed London and County Bank.

POLLUTION OF THE THAMES.

We are informed that, although the fluid part of the sewage of Oxford still flows into the Thames, the necessary works for diverting the whole of the sewage of that city only wait for the putting together of the engines and pumps to send it to the farm, which is ready to receive it. It is expected that these will be completed before the autumn is over. The solid parts of the sewage have been for some months stopped at the filtering-beds, and do not pass into the river.

COLLEGIATE ELECTION.

All the Fellows of the Royal College of Surgeons whose addresses in the United Kingdom are known to the Secretary, will this day (Friday) receive the notices of the annual election into the Council, with instructions as to nomination of candidates. Up to the moment of going to press, the only names mentioned for the four vacancies are Messrs. Wells, Wood, Power, Bryant, and Barwell. Professor Lister, it is now stated, will not come forward this year.

FROM ABROAD.

Chlorate of Potash in Diphtheria.

Dr. Jacobi, Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, New York, read before the Medical Society of the State of New York (*New York Medical Record*, March 15) a paper on "The Remedial and Fatal Effects of Chlorate of Potassa," which contains some observations of considerable importance.

The principal value of the chlorate, he observes, consists in its effects upon catarrhal and follicular stomatitis, and upon mercurial stomatitis, the former being a frequent, and the latter a rare, affection in childhood. Other forms of stomatitis do not indicate its use in the same degree. Thus, while the infectious stomatitis of young infants called thrush or sprue does well under the chlorate, so it does almost as well under the use of water only, salt and water, and still better under a solution of borax (without sugar or honey), which destroys parasitic fungi more rapidly. In diphtheria the chlorate is a valuable remedy, but it is not *the* remedy for diphtheria. There are very many cases of diphtheria which do not exhibit larger surfaces of either pharyngitis or stomatitis than of diphtheritic exudation; and there are also numbers of cases of stomatitis and pharyngitis during every epidemic of diphtheria, perhaps as introductory stages, but which still do not show the characteristic symptoms of the disease. When Dr. Jacobi wrote on diphtheria in 1860, he referred to 200 genuine cases, and at the same time enumerated 185 cases of pharyngitis which he considered to be brought on by epidemic influences, but which, the membrane being absent, could not be classified as *bonâ fide* cases of diphtheria. Such cases of stomatitis and pharyngitis, whether under the influence of an epidemic or not, indicate the use of the chlorate, under which they get well. In cases of genuine diphtheria complicated with stomatitis and pharyngitis the chlorate is not a remedy for the diphtheria itself, but for the neighbouring catarrhal condition. As long as the parts near the diphtheritic exudation are in a healthy state there is little danger of the disease spreading to them, which it soon does when they are the subjects of catarrh, inflammation, or injury, so that the epithelium is loose or removed. In such cases the chlorate of potash or soda (which is more soluble and more easily digested) acts rather as a preventive than as a curative. Cases of diphtheria in which the exudation is confined to the tonsils are not dangerous, as the lymphatic communications being very trifling, there is no absorption into the circulation. The exudation is removed in from three to six days, and these are the cases which have given to the chlorate its reputation as a remedy in diphtheria—its beneficial influence having been really exerted on the accompanying stomatitis. The quantity of the chlorate for a child two or three years old should not be more than half a drachm in the twenty-four hours, and an infant of a year or less should not take more than a scruple. To adults one and a half, or at most two drachms, should be given. In order to produce the full local effect, the remedy should be frequently given, so that it is better to give twenty grains in fifty or sixty doses than in eight or ten, a drachm or half a drachm of a weak solution being administered every hour or half-hour, or every fifteen or twenty minutes, care being taken not to give water soon afterwards. Dr. Jacobi insists upon these points, owing to recent attempts made to employ the chlorate as the main remedy in bad cases of diphtheria, and what is worse, in large doses. After quoting many cases, showing the effect of large doses in producing nephritis, he terminates his paper with the following observations:—

"The practical point I wish to make is this—that chlorate of potash is by no means an indifferent remedy; that it can prove and has proved dangerous and fatal in a number of instances, producing one of the most dangerous diseases—acute nephritis. We are not very careful in regard to the doses of alkalies in general; but in regard to the chlorate we ought to be very particular, the more so as the drug, from its well-known either authentic or alleged effects, has risen, or descended, into the ranks of popular medicines. Chlorate of potash or soda is used perhaps more than any other drug I am aware of. Its doses in domestic medicine are not weighed, but estimated: it is not bought by the drachm or ounce, but by the 10 or 20 cents' worth. It is given indiscriminately to the young and old, for days or even weeks; for the public are more given to *taking hold* of a remedy than to *heed warnings*, and the profession are no better in many respects. Besides, it has appeared to me that acute nephritis is a much more frequent occurrence now than it was twenty years ago. Chronic nephritis is certainly met with much oftener than formerly; and I know that many a death-certificate ought to bear the transcription of nephritis instead of meningitis, convulsions, or acute pulmonary œdema. Why is that? Partly, assuredly, because for twenty years past diphtheria has given rise to numerous cases of nephritis; partly, however, I am afraid, because of the recklessness with which the chlorate has become a popular remedy. Having often met medical men not aware of the possible dangers connected with its indiscriminate use, I thought this Society would excuse my bringing up the subject. It may appear trifling; but you who deal with individual lives, which are often lost or recovered by trifles, will understand that I am anxious to impress the dangers of an important and popular drug on my colleagues, and through them on the public at large."

Dr. Beard on Writers' Cramp.

The following are the conclusions arrived at by Dr. Beard in a paper based on the study of 125 cases of writers' cramp and allied affections, read before the Medical Society of the State of New York (*New York Medical Record*, March 15):—1. What is called the "cramp" is but one of a large number of the symptoms of this disease, and no two cases are precisely alike. 2. Also, in the other forms of professional cramp, as that of telegraphers, musicians (violinists, organists, pianists, harpers), sewing-women, painters, artists, dancers, hammer-palsy, and so forth, the cramp is but one of a number of symptoms, and by no means always the most important one; and, as in writer's cramp, there is frequently no cramp at all from the beginning to the end of the disease. 3. This disease is primarily a peripheral and local disease of the nerves and muscles; secondarily and rarely it becomes central and general; or it may result from various central lesions; and it may affect any point between the extreme periphery and the centre. 4. It occurs mostly in those who are of strong—frequently of very strong—constitution, and is quite rare in the nervous and delicate; and when it does occur in those who are nervous, it is easier relieved and cured than when it occurs in the strong. 5. It is far less likely to occur in those who do original work, as authors, journalists, composers, than in those who do routine work, as clerks, bookkeepers, copyists, agents, and so forth. 6. This disease, like all nervous diseases in this country, diminishes in frequency as we go south. 7. Writers' cramp is no longer an incurable disease. 8. The treatment of writers' cramp and of allied affections consists in (1) the local application of electricity; (2) hypodermic injection of atropia, strychnia, or duboisia, Fowler's solution, and other tonics, narcotics, and sedatives; (3) the internal use of Calabar bean, ergotine, iodoform, and in some cases of nerve-food, as oils and fats; (4) massage, or systematic kneading and manipulation of the muscles, with friction, and pinching, and pounding of the skin, and passive movements of the joints, large and small; (5) dry heat and dry cold by means of caoutchouc bags containing hot water or ice; (6) the actual cautery and very small blisters to the upper part of the spine, or along the course of the affected nerves and muscles. 9. Among the hygienic devices for the relief and cure of writers' cramp are the following:—(1) A ring penholder, so as to relieve the thumb and fingers; (2) the type-writer; (3) the use of large penholders, so that the muscles may be less restricted, and fastening a piece of sponge to the penholder so as to relieve the pressure of the fingers; (4) holding the pen between the different fingers; (5) the use of quills and very flexible pens with very broad points, so as to run easily—the use of a lead pencil is also a great relief; (6) frequently changing the pen and penholder, and style of pen; (7) changing the position in writing, as from sitting to standing, or holding the writing in the lap; (8) the avoidance of faulty, painful, and stiff modes of writing, and the study of easy, natural methods; (9) writing with the left hand; (10) the use of various gymnastic and athletic exercises.

REVIEWS.

Stricture of the Male Urethra: its Radical Cure. By Fessenden N. Otis, M.D., Professor of Genito-Urinary Diseases in the College of Physicians and Surgeons, New York; Surgeon to Charity Hospital, and President of the Medical Board; Fellow of the New York Academy of Medicine; Member of the British Medical Association, etc. London: Smith, Elder, and Co., 15, Waterloo-place. 1878. Pp. 352. Illustrated.

This volume consists, for the most part, of (1) reprints of papers which at different times since 1870 have been read by the author before the New York medical societies, and published in the *New York Medical Journal*; (2) of reprints, from English medical periodicals, of cases and lectures which have been published by surgeons of this country, and of criticisms of the author thereon; (3) of a discussion which took place at the New York County Medical Society, upon a paper by Professor Sands, "On Gleets, and especially its Relation to Urethral Stricture," in which Dr. Otis's views are closely examined, freely criticised, and strongly objected to; and (4) of citations of papers by some American surgeons who approve of Dr. Otis's operation and endorse most of his views.

There is, in addition to the above, a reproduction of a memoir sent by Dr. Otis to the National Academy of France. In this memoir Dr. Otis epitomises the views, experience, and the discussions given at length in the preceding chapters of the book, and makes such alterations and additions as were necessary to bring the subject upon which he writes up to the date of publication, viz., July, 1878. Finally, there is a chapter on "Strictures of Large Calibre," in which attention is drawn to the pernicious effects of strictures but slightly invading the urethral lumen; and another on "Strictures of Small Calibre," in which the treatment preparatory to operating upon, and the complications of small strictures, are briefly discussed.

The points which Dr. Otis claims to have established by his observations are stated by him to be the following:—

1. That the urethra is an *individuality*, and hence, to obtain the true normal calibre of any urethra, it must be measured, or estimated, independently of any other. In reference to this point the author asserts, as the result of an examination of a large number of persons, that there is a constant relation between the size of the flaccid penis and the capacity of the urethral canal; and that when the circumference of the flaccid penis is 3 inches, the circumference of the urethral canal was found to be at least 30 of the French scale; when it was 3½ inches, the urethra had a capacity of 32; when it was 3¾, the capacity would be 34; 3¾ inches, 36; 4 inches, 38.

2. That the meatus urinarius is worthless as a guide to the normal urethral calibre; and that its abnormal contraction is the cause of the pouch-like dilatation of the urethra behind it, known as the *fossa navicularis*.

3. That stricture is a relative term. Hence its extent must always be estimated by comparison with the previously ascertained normal calibre of the urethra under consideration.

4. That the slightest *abnormal* contraction of the urethra at any point constitutes a stricture.

5. That a stricture, in this sense, is always a point of friction, the legitimate tendency of which is to produce inflammation; and hence the slightest appreciable stricture becomes worthy of consideration. That serious trouble often results from strictures which but slightly contract the calibre of the urethra, and which do not markedly interfere with the passage of urine; and that among such troubles *spasmodic stricture*, simulating true organic stricture in every respect, is often caused by such slight contractions.

6. That stricture is *a* cause, though not the *only* cause, of gleet; and is, when present, always a cause of its persistence.

7. That true stricture always embraces the entire circumference of the urethra at *some* point.

8. That complete division of stricture at *any* point results in the *immediate disappearance* of the stricture.

9. That separation of the sundered ends of the stricture, suitably maintained until the healing of the wound, prevents the return of the stricture, and finally results in the complete absorption of the stricture-tissue.

10. That stricture is, strictly speaking, an inflammatory product, and that any acute or chronic inflammation may produce it.

11. That stricture is often present as a result of inflammation caused by *lithiasis*, *masturbation*, or *urethral laceration* (by gravel, etc.), though usually the sequel of a gonorrhœa.

12. That stricture occurs most frequently in the anterior portion of the canal, and with increasing frequency when approaching the meatus, where a gonorrhœal inflammation begins the earliest, rages the hottest, and lasts the longest.

Dr. Otis is of opinion that when the profession becomes educated up to giving the "rational treatment of stricture" a fair trial, close or narrow strictures will become a surgical opprobrium, and the continuous treatment by dilatation, except under rare and peculiar circumstances, will be relegated to physicians or to the patient. He is confident that the radical cure of urethral stricture is attainable by any skilled and careful surgeon who will practise *dilating urethrotomy* in accordance with the plans and principles enforced in his book.

Dr. Otis's method of operating has become, since his visit to this country in 1875, pretty well known to English surgeons, and it has been put to the test of actual employment by several; but we think we are correct in saying that it has not met with any great favour, and that few would be disposed to resort to it, except in very exceptional cases, for the cure of chronic gleet. The operation is too severe for the affection, and there are not many patients, we imagine, who would willingly submit to such a remedy for such an ailment.

At the same time we consider it is beyond question that a large number of cases of stricture which have been submitted to dilating urethrotomy have been permanently cured, and that even if some contraction have followed the operation (as we have reason for believing to have been the case) after a longer or shorter time, yet still considerable permanent increase of urethral calibre is secured.

Dr. Otis's urethra-metre is a convenient and ingenious instrument, and admirably answers the purposes for which it is intended. Since it renders an efficient examination of the urethra behind a contracted meatus or a stricture possible, an explanation has been found for those threads of mucus referred to by Dittel as "sometimes single, sometimes ring-shaped," which are forced out with the urine. They are doubtless *in all cases* accumulations behind the urethral co-arctations—strictures more or less salient, which keep up the gleet and hold behind them the threads of inspissated mucus and pus.

Again, reflex irritations and neuroses by means of the urethra-metre have been traced to slight strictures, which otherwise would not have been detected. No one, we think, who has seen the rapid disappearance of such symptoms after the division of a slightly contracted meatus will be disposed to doubt the validity of such a cause. But unless his method of treating strictures of large calibre be adopted, Dr. Otis's urethra-measure loses much of its clinical importance in the surgeon's hands.

It will be inferred that, in his remarks on chronic urethral discharges (an excellent classification of which is furnished), the conclusion is arrived at is that the mechanical obstacle—viz., stricture—assumes the first rank as their cause.

The distinction between strictures of large calibre and strictures of small calibre is based upon their size in relation to Dr. Otis's dilating urethrotomes, which have a circumference of eighteen to twenty millimetres. All at or above that measurement are included in the class of strictures of large calibre, and may be the subject—so the author thinks—of immediate operation of dilating urethrotomy. All ranging below eighteen millimetres down to a point of practical impermeability, fall into the class of strictures of small calibre, necessitating the use of various methods of treatment in order to bring them up to a size which will permit the passage of the dilating urethrotome with a view to eventual radical cure. It is not possible for us here to give in detail Dr. Otis's recommendations for the treatment of strictures of small calibre, nor is it necessary, as his plan does not, up to a certain point, differ from that generally adopted. Chapter xvi. is, however, one well worth the careful attention of surgeons.

Whatever differences of opinion may exist or arise with regard to Dr. Otis's views and practice of dilating urethrotomy, no one, we are sure, can read this work without being impressed with the author's earnest conviction of his opinions,

and the courage with which he expresses them—a courage which is the more conspicuous because of the novelty of his conclusions, and the natural prejudice with which they were certain to be received. The book is of course, from its character, not intended for the perusal of students or very young practitioners, but appeals directly to the experience and judgment of surgeons searching after scientific truth, who have a large field in genito-urinary diseases, and give no favour to crotchets or traditional opinions.

A Dictionary of Chemistry and the Allied Branches of other Sciences. By HENRY WATTS, B.A., F.R.S., F.C.S., Editor of the *Journal of the Chemical Society*, assisted by eminent contributors. Third Supplement, Part I. London: Longmans. Pp. 838.

IT is plain that the author and publishers of this great work are resolved to spare no pains or cost to keep their book of chemistry abreast of the times. Already since the work was completed two supplements going over the whole ground have been published, and we have in the present volume an instalment of a third. This is intended to bring the state of our actual knowledge with all important advances up to the end of 1877, and including some part of 1878, before the reading public. But, inasmuch as the space to be covered and the work to be noted is considerable, two volumes will be required for the supplement, and it is of the first of these we now speak. It extends from A to the end of F; whilst the second, which has not yet appeared, will comprehend the remaining letters of the alphabet. Besides the important work of the editors, the present part comprehends articles on *Cumulative Resolution*, by E. J. Mills, D.Sc., F.R.S., "Young" Professor of Technical Chemistry in Anderson's College, Glasgow; on *Flame*, by T. E. Thorpe, Ph.D., F.R.S., Professor of Chemistry in the Yorkshire College of Science, Leeds; and on *Barley* and *Forest Trees*, by R. Warington, F.C.S. The longest articles are those devoted to Benzoin and its allies and derivatives; the Carbamides; Chemical Action; Cinchona and its bases; and one or two others. It would obviously be out of place to attempt any criticism of these in a notice like this, our object being only to direct the attention of our readers to the appearance of this additional volume and to its generally excellent character. To our own profession there are many articles, such as those on bile, blood, and the like, which will be most acceptable.

A Handbook of the Diagnosis of Skin Diseases. By ROBERT LIVEING, A.M., M.D. Cantab., F.R.C.P., Lecturer on Dermatology to the Middlesex Hospital Medical School, lately Physician to the Middlesex Hospital, etc. London: Longmans. Pp. 266.

DR. LIVEING has the good fortune to be one of the most popular teachers we have among us on whatever relates to skin diseases, and whatever he writes or says is sure to secure a careful perusal and an attentive audience. It is but justice to add that this is well deserved: to be clear yet concise, condensed yet most readable, are characteristics not always found in combination. But we cannot help regretting that the two useful manuals he has published should be separated. Works on diagnosis are by themselves not over and above edifying. They have their value, no doubt, as a kind of mental gymnastics to be executed at the bedside; and for this purpose we can conceive nothing better suited than a course of instruction in skin diseases, where they are properly dealt with. But the question is, Where? Are we to follow the old system of Willis and Bateman, and so separate closely-allied conditions merely because the superficial resemblances are not quite near enough? Or are we to follow the French system of diathesis, most repugnant to many belonging to the English school? There is nothing more repulsive to the student than the multitudes of species created by some writers on skin diseases, with but little advantage to the patient. And after all, as it seems to us, this is the main point to be considered. With that—*i.e.*, the management of skin affections—Dr. Liveing has dealt most successfully in his little volume, "Notes on the Treatment of Skin Diseases." Here, in the volume before us, the author has adhered to the subject of diagnostics, commonly so-called, to a great extent, but not entirely, for much is also said on the general characters of the diseases discussed, or, to use an abominable term, their "natural history." Especially is this the case with the rarer forms of skin disease, such as hydroa, scleroderma in its various varieties, purpura rheumatica, xanthoma, and the like. In this way the book is made fuller than it might have been had it been restricted to matters of diagnosis only, but it is certainly rendered more interesting and more valuable. But, as already said, a combination of the two books is greatly to be desired: the two separate are undoubtedly excellent, but the two together would give us a convenient handbook—one, in fact, the best of its kind.

Notes on Rheumatism. By JULIUS POLLOCK, M.D., F.R.C.P.L., Senior Physician and Lecturer on Medicine, Charing-cross Hospital, etc. Second Edition. J. & A. Churchill. Pp. 115.

As we noticed the first edition of this small treatise at some length only a few months ago, we need only note at present the speedy issue of the second edition, proving clearly that it has hit its mark. We are glad to observe that the author has remedied the chief defect we pointed out, by adding an appendix in which he has given the concise histories of a considerable number of illustrative cases with their temperature charts. There is also a new chapter on the chemistry of salicin and salicylic acid.

John Richardson and Company's Annual Price Current for 1879.

MESSRS. RICHARDSON'S firm, of Leicester, who, it will be remembered, are the well-known makers of the pearl-coated pills, have continued in the present year their experiment of publishing an annual price-current for the benefit of the profession. In addition to the actual business portion of the catalogue, they have compiled a fifth part, which they designate Medical Annotations; this portion of the work is likely to prove extremely useful to medical practitioners, since, amongst other information, it gives a short history of some of the newer remedies and preparations recently introduced into practice, with the names of the gentlemen responsible for their introduction; and as considerable care has been taken in condensing this information, which has been brought down to the end of last year, it will be found handy for occasional reference.

SURGICAL EXAMINATIONS.—At the pass examination for the diploma of Membership of the Royal College of Surgeons, on the 16th inst., when sixty candidates presented themselves, the following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to them; when they were required to answer at least four (including one of the first two out of the six questions), viz.:—1. Describe the anatomy of the hip-joint, and the lesions which occur in dislocation of the femur on to the dorsum of the ilium. 2. Describe the anatomy of that region of the abdominal wall which is bounded below by Poupart's ligament, and above by a horizontal line drawn from the anterior superior spine of the ilium to the median line. 3. A tumour is found in the popliteal space—to what may it be due? How would you proceed to determine its nature? 4. Describe the symptoms, progress, and treatment of a case of extravasation of urine, following an injury to the perineum. 5. What local symptoms may accompany and follow a compound fracture of the vertex of the skull? 6. What conditions does the eye present in acute glaucoma? Describe the treatment of such a case. The following were the questions on the Principles and Practice of Medicine submitted to those candidates on the following day who had not previously passed in Medicine, or held a recognised medical licence, viz.:—1. Describe the course and features of measles and scarlet fever, their sequelæ, and the prominent measures of treatment and prophylaxis suitable in each case. 2. Under what circumstances does embolism of a cerebral artery occur? What would be the consequent symptoms, and what would you advise to be done for the relief of the patient? 3. What are the effects of overdoses of the following medicinal substances:—Belladonna, digitalis, iodide of potassium, chloral, arsenic, and cantharides? Give their chief pharmacopœial preparations and their average doses. Write out in full a prescription for a mixture for an adult suffering from chronic bronchitis.

GENERAL CORRESPONDENCE.

CROUP AND DIPHTHERIA.

LETTER FROM DR. W. SQUIRE.

[To the Editor of the Medical Times and Gazette.]

SIR,—As the subject of the late debate, so ably and impartially concluded by Dr. Dickinson, is likely for some time to be under discussion, allow me to offer a short comment on some points in his reply.

The few instances got together of croup fatal without the formation of false membrane are far from representing what my experience would lead me to consider an adequate representation of the danger of non-diphtheritic croup. Again, the cases of croup in connexion with the exanthemata, especially after measles, are not infrequent, and often prove fatal. This adds weight to the results calculated by Dr. Buchanan, and strengthens the conclusion arrived at by Dr. Dickinson—"that these febrile irritants are able themselves to produce the membrane in question." The membrane formed is in smaller and thinner shreds than that resulting from diphtheria; consequently emetics are more likely to be useful, and tracheotomy is less urgently demanded.

Recognising, with Dr. Dickinson, the two most different conditions included under croup, no practical point seems to me of greater importance than that so clearly laid down by him of the urgent necessity for tracheotomy in cases of diphtheria, and the good reasons for delay in other cases while no membrane as yet exists. In reference to these latter cases, I must take exception to the oft-repeated statement that boys are attacked twice as often as girls with what is generally called croup: the proportion is very nearly equal for the numbers of the two sexes at the age when such attacks are most common. Diphtheria, like whooping-cough, is most fatal among girls. I am, &c.,

May 26. W. SQUIRE, M.D.

THE DEBATE ON THE REPORT OF THE CROUP AND DIPHTHERIA COMMITTEE.

LETTER FROM MR. H. G. HOWSE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your last number Dr. Semple has stated, in a paper on the above Report, that Dr. Fagge was in a minority of one in the Committee. As a member of the Committee I wish to inform your readers that this is not correct. My opinions were much more in accord with those expressed by Dr. Fagge than with those held by Dr. Semple. The length to which the discussion at the Medical and Chirurgical Society was prolonged prevented my speaking on the subject, although I had originally intended doing so. But I may say that no division was ever taken in committee formally to test the opinions of the members upon the subject, which may account for Dr. Semple's mistake. As, however, he has been deceived in my position, it is very possible that he may have been also in that of other members of the Committee.

I am, &c., H. G. HOWSE.

St. Thomas's-street, Southwark, S.E., May 27.

DENTAL HÆMORRHAGE.—At a meeting of the Société de Chirurgie, subsequent to that noticed in the *Medical Times and Gazette*, page 583, Dr. Magitot stated that in the account which he gave of the great efficacy of the gutta-percha plug (consisting of equal parts of warmed gutta-percha and charpie) in arresting hæmorrhage, he had forgotten to mention that before its application the socket should be thoroughly washed out with chloroform. This dissolves gutta-percha and facilitates its adhesion; and so close is this adhesion sometimes, that two or three days after the application of the plug it requires a true forceps extraction for its removal. This preliminary application of chloroform must, therefore, never be omitted, or the plug will sometimes prove no more efficient than the old-fashioned one of wax. How serious a matter dental hæmorrhage is may be judged of by the fact that M. Moreau has recently reported ten cases in which it proved fatal.

REPORTS OF SOCIETIES.

THE EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, APRIL 7.

Surgeon-General J. MURRAY, M.D., President, in the Chair.

CHOLERA IN INDIA.

MR. ROBERT LAWSON, Inspector-General of Hospitals, read a paper on "The Course of Cholera in India in 1876." The author remarked that epidemics of cholera had sprung up in the endemic area in Bengal in 1864, 1866, 1868, 1870, 1872, 1874, and 1876, and that each, either in the year it commenced or in that immediately following, extended to the west and north-west a variable distance, and in varying force, but the intensity at one point of its course gave no indication of how far it would proceed, nor of its severity during its subsequent progress. After an outline of the incidence of cholera in 1875, it was shown that in January, 1876, the whole breadth of the peninsula from Cape Comorin to about 16° north was covered by the disease. From this, the low country between the hills and the sea on the east coast (with an offshoot to Hyderabad) was occupied up to the endemic area with little intermission, and on the west coast in a milder degree as far as the top of the Gulf of Cambay, including the Kattywar Peninsula. There was a large amount of cholera in the endemic area, but the previous epidemic had died out along the Ganges and to the northward, except in Cashmere, where an outbreak was just commencing. The whole interior of the country, therefore, from lat. 16° northward (except Hyderabad) was practically free from cholera. To the south of the line just specified cholera was in great force in many districts in January, and continued with various fluctuations during the year. In the southern districts of Bombay Presidency, Dharwar, Belgaun, and Kaladgi, cholera was very active from January onwards, and culminated in the first in March, and in the others in May. The districts to the northward, on the central plateau, were affected in succession—Sholapur in May, Satara and Poona in June, Nasick and Ahmednagar in July, and Kendesh very slightly in August. Tanna, on the coast, had the epidemic in June, Bombay city in July only. In the Ahmedabad district, at the top of the Gulf of Cambay, where the disease had been going on from January, it culminated in April and May; and in the latter month, Deesa and the Thar and Parkar district on the north of the Run of Cutch were affected. Farther on in this direction, a column of troops, on the march to Quetta, were struck by cholera on April 9 at Bagh, a town near the entrance to the Bolan Pass; and it was reported the disease had prevailed among the natives in its vicinity some time previously. In the endemic area cholera increased rapidly in January and February; and in March and April extended over the districts along the valley of the Ganges, and reached Allahabad and Cawnpore, and occupied the greater part of Oudh. In May the disease extended a little, and culminated in June in most places. North of the Jumna it did not extend west of 80° E. long., except close to the mountains, where it covered the country up to the Ramgunga River, a tributary of the Ganges; south of the Jumna there was a long offshoot parallel to the river, extending as far as Ulwar, southward of Delhi. In the centre of the country, which was unaffected by the outbreaks, there had been twelve deaths at Chanda, south of Nagpore. In January and in March an epidemic commenced there; this month also the disease commenced at Mandla, Betul, and Hoshungabad, westward and north of Nagpore. Other districts of the Central Province, and that of Berar, became affected, subsequently forming an irregular cholera field, which joined on to that of Bengal opposite to Allahabad, but remained detached elsewhere from those around it. There was a smaller field which commenced at Saintalpur, and extended up to July, but it continued isolated. There was then a large portion of the interior of the peninsula, commencing at the Sone river and foot of the western slopes of Chota Nagpore, running south, then turning out between Chanda and Hyderabad, then northward and west of Berar, northwards, crossing the valleys of the Taptee and Nerbrudda, then opening out in Central India, and further on embracing the whole country from the sea north of Cutch to the

Himalayas. In this extensive span cholera did not occur as an epidemic anywhere, though a few small groups of cases were scattered over it. Beyond this excepted area cholera appeared in June at Lahore; and in the districts to the west and northward it extended in July and August; and by September involved Peshawur and the country west of the Indus, down to near Dera Ghazi Khan, and in November was at Caubul. The relations of these various outbreaks to one another form an interesting subject for inquiry, which none of the theories hitherto advanced can altogether elucidate.

In the discussion which followed, Dr. Murray, Mr. Netten Radcliffe, Sir Joseph Fayrer, and others took part.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 9.

Dr. GREENHOW, President, in the Chair.

REMOVAL OF BILIARY CALCULUS BY OPERATION FROM THE GALL-BLADDER.

MR. BRYANT related a case in which a biliary calculus was removed by operation from the gall bladder, and a cure resulted. This occurred in a single woman, aged fifty-three, who was admitted into Guy's Hospital under Mr. Bryant's care in July, 1878, with two discharging sinuses of three years' standing, following an abscess which had been previously forming for two. At first the sinus was laid open, and pus alone escaped; but subsequently, as bile flowed in quantities from the wound, an exploratory operation was performed, and at a depth of two inches a biliary calculus, one inch long, turned out of the gall-bladder. Everything went on well after the operation, and although bile continued to escape from the wound for about two weeks, the parts quite healed in about four months, and the patient left the hospital cured. The author brought the case before the Society as an encouragement to surgeons to apply their art in later or allied cases, for he was well prepared to support the suggestion of Dr. Thudichum, made twenty years ago, "that gall-stones might be removed from the gall-bladder through the abdominal walls"; and he pointed out that under certain circumstances the operation was justifiable, when the sinuses by their presence were setting up inflammatory and suppurative changes about the gall-bladder, without any obstruction to the bile-ducts, as well as in that more serious class of cases in which the cystic or common bile-duct was obstructed, and dropsy of the gall-bladder, with jaundice, complicated the case, as shown by the cases of Dr. M. Sims and Mr. G. Brown.

Mr. HULKE said that there was no shadow of doubt as to the propriety of the treatment in Mr. Bryant's case. He simply rose to say that the whole question had been exhaustively treated in an early number of the *Mémoires de Chirurgie* of about the year 1706. In a case there discussed, the stone was withdrawn by the forceps, and the author drew an analogy between it and the operation of lithotomy.

SPONDYLITIS DEFORMANS.

Dr. ALLEN STURGE read this case. The patient, a man, aged twenty-six, was an artificial flower maker, who had been under his care at the Royal Free Hospital. The mother suffered very much from rheumatism. One brother had severe chronic rheumatism, and another was said to be very subject to gout. The patient's health had been good before the present illness; there was no distinct history of syphilis. Prior to his illness he had been a strong, upright man, and a rapid runner. The present condition began eight years ago, with pain in the back, which had never since quite left him. Gradually the back became stiff, both in the cervical and dorsal regions. When he came under care the spinal column was remarkably fixed throughout. The lumbar and dorsal regions together formed a curve of large radius, with the convexity backwards (spinal lordosis); and the spine, as a whole, was on a plane posterior to that of the sacrum, producing a projection forwards of the abdomen, the legs being carried back in a corresponding degree to catch the centre of gravity of the body. There was no special tenderness of the spine at any part. In bending forwards, the spine, as a whole, remained quite stiff, and flexion appeared to be almost entirely confined to the lower two or three lumbar vertebræ. The cervical part of his spinal column was very stiff. Power of flexion of the head forwards and backwards was very limited, and lateral movement of the head towards the shoulders was almost abolished. Power of rotation, though imperfect, was less impaired than the other movement. The thorax was very rigid; breathing was almost wholly abdominal. On drawing a deep breath there was a slight movement of expansion, but scarcely any of elevation. Dr. Sturge remarked that this condition was one of very rare occurrence, and would appear to be rheumatoid in its nature. The post-mortem changes were described a good many years ago by Professor R. W. Smith, of Dublin, and more recently by Dr. von Shaden, of Altona. They were like those met with in rheumatoid arthritis of other parts of the body, viz., absorption of the articular cartilages, nodular growths on the articular surfaces of the bones, and anchylosis of adjacent vertebræ, to which must be added absorption of the intervertebral cartilage. It might coincide with rheumatoid affections elsewhere, but in many cases it was confined to the spine, or to the spine and costo-sternal articulation. Todd had seen a case in a man aged twenty-five, and Eulenburg had met with it in a girl of twelve years old. As a rule, however, bony anchylosis of the vertebræ occurred in old people, but it was doubtful whether the increase in young persons could be looked upon as identical with that which occurred in old people.

Mr. BRYANT remarked that Dr. Fagge had brought before the Pathological Society about two years ago a case of the kind, in which the joints between the vertebræ, and those between the ribs and the vertebræ, were anchylosed, so that the patient, having bronchitis, and not being able to cough or breathe, died asphyxiated. Dr. Fagge had not in that case discovered the anchylosis during life, and there was not in that case the deformity found in Dr. Sturge's case.

Mr. BARKER inquired whether in these cases there was fusion between the bones of the spine, or whether there was simply a locking of the bones, due to bony outgrowths. Fusion in such cases was rare. Was there complete bony union, so that on section one could not find the line of division between the vertebræ?

Mr. HEATH did not think fusion between the vertebræ was so very uncommon as a result of rheumatic arthritis; but such cases did not lead to the deformity present in Dr. Sturge's case. He thought a photograph exhibiting that patient's deformity should be added to the case, as such deformity was rarely met with, except as a result of ordinary angular curvature.

Dr. STURGE, in reply, was sorry that he had overlooked Dr. Fagge's case in examining the *Pathological Society's Transactions*. He would endeavour to obtain a photograph of his patient, though the man was now in prison.

SUTURAL JUNCTION OF ULNAR NERVE: RESTORATION OF FUNCTION.

Mr. HULKE read particulars of a case of sutural junction of the ulnar nerve fifteen weeks after its complete severance by a roofing-slate, with early restoration of function. The author said the procedure was a rare one, but where practised had already given most satisfactory results, and held out the promise of restoration to many an otherwise crippled limb. His case was interesting from the long interval that elapsed after the injury before the operation was performed, and for the speedy restoration of commencing nerve-function, which was only three or four weeks after the operation. The patient, a blacksmith, aged fifty-three, was struck by a slate from a roof in a hurricane across the inner side and front of the elbow. The wound thereby produced healed slowly, and was painful from the first, the pain assuming a neuralgic character. The forearm and arm wasted; the man's health suffered; and he was quite unable to do any work. Fifteen weeks afterwards all parts supplied by the ulnar nerve in the hand were numbed and cold, and the scar in front of the elbow was exquisitely tender. The patient was then chloroformed, and an Esmarch's bandage put on. The ulnar nerve was exposed at the elbow, and found to be completely divided, and the two ends widely separated. The upper end was bulbously swollen, and dragged out of its course by the shrinking scar; the lower end was shrivelled. In both ends were minute particles of slate embedded. Both ends were removed by clean tranverse sections, and were then found to be three-quarters of an inch apart. In order to bring them together the upper end was stretched and drawn down, and

joined as closely as possible to the lower one by four silk sutures passed through the sheath. Absolute contact was not attainable. The operation was done, and the wound afterwards dressed antiseptically. The neuralgia ceased at once and did not recur, and in less than six weeks the patient returned home. The sensitiveness, which had begun to return about a month after the operation, rapidly increased, so that upon leaving the hospital the man went at once to his work.

Dr. GLOVER inquired what was the distance between the ends of the nerve after the operation?

Dr. ALTHAUS said that there were on record several cases of recent division of nerves, in which, after operation, innervation had recurred; but he did not think there was another case reported in which, fifteen weeks after injury, such an operation had resulted in recovery of nervous power. If the ends of a divided nerve were brought within a quarter of an inch of one another, true nerve-fibres formed between them, and a return of innervation occurred; if the ends were left separated more than a quarter of an inch, a union of simply fibrous tissue resulted. If a quarter of an inch of a nerve trunk were removed, innervation returned within eight or ten days.

Mr. HEATH said that after division of a nerve there was often a kind of reflex nerve-action in the parts supplied by it, so that they seemed to have their nervous functions carried on by adjoining nerves—as with the ulnar and median. Some years ago he had divided the ulnar nerve in opening a sinus near the elbow; he had immediately put in a silk stitch through each half of the nerve, and had thus united them. He had heard no more of the stitch; and the patient, who, when well, left the hospital, had previously recovered much nerve-power. He was not a bit the worse for the stitch in his nerve, and had not since been heard of.

Mr. G. BROWN said that Mr. Wheelhouse's case was remarkable, because the operation was done so long after the injury—two years, he thought—and the separation between the two divided ends was two inches. The man had originally come to the Leeds Infirmary to have amputation of the leg performed, as the limb was perfectly useless from its paralysed condition.

Mr. MORRIS, in answer to an inquiry, was informed that the silk through the nerve in Mr. Heath's case caused no nervous symptoms, such as neuralgia.

Mr. BRYANT asked what portion of the nerve had been divided. There were several cases of the kind on record, where, the injury having been done for months, and even years, the operation had been very successful.

Mr. WALSHAM inquired whether the trophic, as well as the sensory branches of the nerve, were restored.

Mr. HULKE, in reply to Dr. Glover, said that the ends of the nerve after the operation were not absolutely touching, but were as nearly as possible together without actual contact. To Dr. Althaus, he said that other cases with a longer interval than his own between the injury and the operation had been recorded. He had himself, in excising pieces of nerve for frontal tic, been sometimes quite annoyed at the rapidity and thoroughness with which nerves, from which an eighth of an inch of the trunk had been excised, united, so that their sensitiveness, and with it the tic, returned. Then he had cut out half an inch, and the sensitiveness had not returned after six months. But in another case, where nearly half an inch was excised, sensitiveness did return. To Mr. Heath, Mr. Hulke replied that the ulnar side of the ring-finger before the operation was numbed, and after the operation had re-acquired sensitiveness, so that it did not appear that any adjoining nerves had in his case taken on themselves the functions of branches of the ulnar nerve-twigs in the fingers. Altogether, Mr. Hulke thought that he himself had removed three-fourths of an inch of the nerve at the time of the operation. As to the trophic condition of the skin, he could say nothing about it. The patient had long since left the hospital, and was now at work.

PAPILLOMA OF THE BLADDER.

Mr. A. T. NORTON read a paper giving the case of M. C., aged thirty-four, who was admitted into St. Mary's Hospital suffering from the effects of long-continued hæmorrhage from the bladder. The urine contained, in addition, large quantities of mucus and phosphates. She frequently passed pieces of phosphate of lime the size of a No. 3 shot. There was continual desire to pass water, and after doing so she said the bladder always seemed full. Pure blood escaped after the water, and the pain was excessive. Mr. Norton, on examination, found no calculus, but the bladder was thick in the region of the trigona. A tumour of the bladder was diagnosed. The patient was put under the influence of chloroform, and the bladder examined by inserting the finger through the urethra. In the floor of the bladder was a tumour one inch square, not much raised above the mucous membrane, but occupying the trigona, and about half an inch from the sphincter. The tumour was coated with phosphatic calculus. It was evident that the tumour must be removed, and the patient submitted to the risks attendant upon a severe operation, or she must be left to endure the tortures brought about by the contraction of the bladder upon the growth after micturition, and with the certainty of an early death from hæmorrhage, or from blood-poisoning. It was impossible to remove the growth through the urethra, and it was decided to cut the mass away by opening the vagina. It was considered that the growth could not be cleared without cutting through the urethra, and the operation was performed as follows:—The spring scissors were inserted, one blade into the bladder nearly up to the tumour, and the other into the vagina, and closed; the front wall of the vagina was then incised centrally to within half an inch of the uterus, and the vaginal wall, which was found to be not incorporated in the growth, was dissected from the bladder; the growth was then seized with the vulsellum forceps and drawn forwards, and was then excised by the scissors and removed. Bleeding was arrested by actual cautery, and the lateral flaps of the vagina approximated by sutures. To prevent further hæmorrhage a catheter was inserted, and the bladder compressed by plugging the vagina; no hæmorrhage of importance took place. The temperature remained below normal, and the pulse rose to 120. Severe vomiting was persistent until the tenth day after the operation, notwithstanding subcutaneous injection of morphia and five-grain doses of quinine administered frequently by the stomach. After the tenth day she was considered out of danger, was making good progress, took food well, and was cheerful. On the twelfth day after operation, when apparently in health, she vomited, and shortly afterwards fell asleep, in which sleep she died from syncope. Post-mortem: Heart healthy, left side empty; slight clot, black, half discoloured; greater part of blood in vessels fluid; wound green and sloughing upon surface, but healthy immediately beneath. Phosphatic deposit upon wound and also in orifices of ureters. Mucous membrane of bladder congested, but of normal consistence. Pelvic fascia and peritoneum uninjured. No thrombosis of vesical or pelvic or iliac veins, and no pelvic cellulitis nor peritonitis. From post-mortem it appears that she died from syncope, and at a time when she was recovering from the complications of the operation. By examination of the wound it was evident that, so far as the peritoneum was concerned, a tumour nearly twice the length and twice the breadth could have been removed, but the ureters would be included in such an operation. Whether or not including the ureters in such an operation would add to the severity of the operation, cannot be proved, but it is probable that the urine would escape without injury to the parts around. A microscopical examination showed the tumour to be a papilloma. Since writing the above case Mr. Norton had operated upon a second case of tumour of bladder, now in the hospital, but which had completely recovered from the effects of the operation.

Mr. HEATH, in answer to an inquiry, learned that the piece of tumour removed was about an inch across, and was a papilloma. He asked whether it involved the mucous layer of the bladder only, or if it implicated the muscular coat as well?

Mr. KNOWSLEY THORNTON had recently had under his care a case of the kind in an old lady. Having dilated the urethra, he passed his finger into the bladder, and found the growth was small and soft, and situated just above the left ureter. With his nail he had scraped away sufficient to put under the microscope, and it proved to be a round-celled sarcoma. He thought it might be removed by one of three operations—viz., per vaginam, by the supra-pubic method, or through the peritoneum; and that the first method would be much less dangerous than either of the other two. Though, if one could be quite sure that the urine would not

be putrid, there would not be much risk in operating through the peritoneum. Usually, however, the urine was decomposed, and even in the specimen of tumour which he had removed with the nail there were bacteria in numbers.

Mr. Morris asked what was the quantity of blood lost by Mr. Norton's patient, and whether he had removed the whole thickness of the wall of the bladder? A patient in the Middlesex Hospital, aged fifty-six, and who had often had hæmorrhage from the bladder, was chloroformed, and had the urethra dilated. A long growth was then seized, and taken away by the écraseur, and all the immediate symptoms were relieved, though she died eventually of hydronephrosis. The tumour had acted as a plug to the ureters, and prevented the free passage of urine from the kidneys to the bladder.

Mr. Hulke inquired what was the object of splitting up the urethra as well as the bladder; and after the urethra, bladder, and anterior wall of the vagina had been split up, how was the tumour dealt with? The vomiting had continued much longer than the vomiting from chloroform would have lasted. After the removal of the diseased part, the actual cautery was applied, and the parts were drawn together by suture: was it not probable that the ureters were thus dragged, and the passage of urine interfered with until the sutures were removed? And was not that traction upon the ureters probably the cause of the sickness?

Dr. Glover asked if there were any disease in the neighbourhood of the bladder? He related the case of a patient passing blood per urethram, with probably cancerous disease of the bladder, where sudden hæmorrhage ensued, and the patient died. There was no disease of the neighbouring parts, and the growth was not encrusted with urinary salts.

Mr. Morrant Baker wished to know the character of the growth in Mr. Norton's second (the successful) case.

Mr. Bryant asked why Mr. Norton had not had recourse to dilatation of the urethra for the operation itself as well as for the diagnosis. Fifteen years ago, he (Mr. Bryant) had removed a growth from the bladder of a female patient with the écraseur, and the patient was still quite well eight years afterwards. In two other cases he could isolate the growth, and could, he believed, have removed it through the urethra. Such an operation was much less severe than the serious one performed by Mr. Norton.

Mr. Marsh inquired to what degree it was right to dilate the urethra. Beyond a certain point, incontinence of urine followed large dilatation. No stone, for instance, larger than an acorn should be so removed. The Society seemed to think that cutting through the vesico-vaginal septum was a serious operation; but he had done it twice or three times in adults, and once in a child, for stone, without any serious results.

Mr. Bryant thought that, with rapid dilatation, there were no bad after-effects; but that, after slow dilatation, incontinence resulted.

Mr. Norton, in reply, said that he first cut down into the vagina, and dissected off the vagina from the bladder. He had then seized the bladder, and with spring scissors had removed the growth. The operation was necessary, because of the incessant torture into which the patient was thrown by the constant micturition and hæmorrhage. He had not considered it a very serious thing to cut through the urethra if requisite, as he had before made one from cellular tissue, and could always rely on making the cut surfaces subsequently unite. In reply to Dr. Glover, he said if the disease were killing the patient, one must do the operation, and consider the disease itself before the constitution of the patient. He said that, if he had attacked the disease from the urethra, he would have failed; for such an operation was impracticable. As regarded the composition of the tumour from his second patient, it was being prepared for examination under the microscope.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Friday, May 16.

Dr. Stevenson, President, in the Chair.

The minutes of the previous meeting having been read and confirmed, the report of the Council was read respecting some amended by-laws for the management of cowsheds and slaughter-houses.

Dr. Dudfield remarked that he was surprised to find that the vestries of the metropolis are very inadequately represented at the Sessions Court for the licensing of slaughter-houses. Very few medical officers of health take sufficient interest in the carrying out of these provisions. Their position is in no degree altered by any existing regulations under the Acts now in force.

Dr. Price Jones remarked that the executive committee of the Surrey magistrates have accepted the regulations as recommended by the Society for the management of slaughter-houses and dairies.

Dr. Browning made some observations upon the difficulties in the way of effectually carrying out the provisions of the Canal Boats Act. If the boatmen care to register, they will; otherwise they defy the inspectors. Some of the people alight from the boats at those parts where they are likely to be reprimanded for overcrowding. The children assist in working the boats, and so the parents will not have them registered. Under Section 1 of the Act they can register where they like; hence a difficulty in enforcing this provision. They may, as required, give notice of intention to register, and never do so. If the inspector were to take out a summons it is doubtful if it could be sustained. There are more women and children in the barges which are registered as sea-going vessels, and these are subject to the Merchant Shipping Act, and not to the Canal Boats Act, although they traverse the canals. It is very necessary that some steps should be taken to obtain an alteration of the Act.

Sanitary Notes on Potable Water.

M. Gustav Bischof then read a paper entitled as above, of which we subjoin an abstract:—Fermentation may favour or it may counteract the virulence of the specific contagia, or there may be no connexion at all between them. Suppose we are dealing with typhoidal or choleraic discharges in a state of gradual fermentation, the question is, will the virulence of the contagia be increased, or diminished, or will it not be affected at all, by being surrounded with putrid fæcal matter? Davaine found that whilst the disease amongst cattle, known by the name of "blood," can always be reproduced in a healthy animal by inoculation of fresh diseased blood, the latter loses its infective power whenever it becomes putrid. It is possible, or even probable, that the specific contagia of different diseases may exhibit a different behaviour under the influence of fermenting matter. As a matter of course, fermentation is capable of resolving all organic matter, without exception, into its more elementary inorganic constituents. Do we not see every day that plants feed and thrive on fermenting matter, and yet that the same plants ultimately become its prey? These considerations may explain apparently contradictory statements. By far the largest number of statements are favourable to the supposition that the virulence of contagia is increased under the influence of fermenting matter. Dr. Sanderson inoculated mice subcutaneously with the blood of an animal suffering from splenic fever. The experiment was then varied, the blood being dried, permitted to assume the form of dust, the dust wetted, allowed to dry again, and left "in the midst of putrefying matter." After thus keeping the blood for four years, its action was as fatal as that of blood fresh from the veins of an animal suffering from splenic fever. Dr. Bastian informs us that epidemic diseases are frequently most fatal when they once break out amongst a people who are in the habit of feeding upon diet containing much putrid matter. From a report by Dr. Ballard on the epidemic of typhoid at Armley, in the borough of Leeds, we are led to conclude that the cause of the outbreak was milk which had become tainted by some highly polluted well-water. A deposit of mud and filth was discovered at the bottom of the well, which gave abundant bubbles of gas on being disturbed. The organic matter in the water was therefore in a state of putrefaction. In one of Dr. Pettenkofer's pamphlets we find the remarkable statement that from the very commencement "facts" led always to the qualification that fresh discharges of cholera patients were not infective, but only those which are in a state of decomposition. The opinion of Mr. J. Netten Radcliffe and Dr. Buchanan, as indicated in one of their reports, implies that discharges containing the specific virus of typhoid are not so dangerous in the fresh state as after fermentation has set in. Even

those who on principle oppose the theory of the contagiousness of typhoid—as, for instance, Drs. Bastian and Murchison—have been led by their researches to seek for "some forms" of putrefying matter as the exciting cause. Sir Thomas Watson suggests that Dr. Murchison's views may be so qualified, without departing from his intentions, that the poison of enteric fever is often generated during some part of the process of decomposition of fæcal matter. Of peculiar interest, on account of a very large experience, extending over more than 1800 cases of enteric fever, are the observations by Professor A. Biermer, of Zürich, on the conditions which are most favourable to the propagation of that disease. He arrives at the conclusion that there is strong evidence of the development and reproduction of the virus of typhoid outside the human body. The accumulation of human excrements, he says, causes a local predisposition for typhoid and cholera, and with the exception of certain cases, which in all probability had been imported, typhoid disappeared as soon as the fæcal matter was regularly removed. At Caterham an ordinarily very pure water was contaminated, not by typhoidal discharges mixed, as usual, with a very large proportion of ordinary sewage matter, but by typhoidal discharges only. The virus of typhoid was therefore surrounded by a comparatively small proportion of fermentable matter. And what is the practical result? An "exceptionally mild character of the disease." Experience has led, almost without exception, to the conclusion that the virulence of the contagion of cholera and typhoid, as also probably of other contagious diseases, is increased whenever surrounded with putrid matter. This would also apply to specifically infected drinking-water which contains fermentable matter. Some suppose that the specific virus of typhoid and similar diseases multiplies only within the bowels of persons affected, lying dormant as soon as it left them. If this were correct, any influence of fermenting matter on the specific virus outside the human or animal body could hardly be satisfactorily explained; and we are therefore indeed compelled either to deny any such influence, or to accept that multiplication takes place, or may take place, as well without as within the animal body. The water supplied to London from the Thames, polluted as we know it is by all kinds of filthy matter, is at ordinary times fairly wholesome. But as soon as an outbreak of an epidemic—say of cholera or typhoid, or perhaps, according to a recent notion, of diphtheria—takes place, the aspect is at once changed. That same shallow-well or river water, which had been taken with apparent impunity for years, becomes the vehicle, and increases, apparently in a ratio to the state of its purity, the virulence of the contagion. If by some means or other the character of the water be so changed that it does no longer contain fermenting matter, what is the bearing of that result upon the specific virus by which it has been contaminated? Those who accept the germ theory of contagion will consider it not unlikely that the agent which is capable of destroying one form of the lowest organic life may be capable of destroying another. Such was the line of argument leading to M. Bischof's experiments upon the separation of fermenting matter from water by filtration, the details of which he entered into at some length. The purifying media experimented upon were animal charcoal and spongy iron. Water, after passing through animal charcoal, does not prevent putrefaction of meat. The same water, and even hay infusion, after filtration through spongy iron, under otherwise like conditions, is incapable of inducing for many months putrefaction of meat brought in contact with it. From all these experiments he drew the following conclusions:—1. The results explained in this paper strongly corroborate those communicated in former papers on similar subjects, as read before the Royal Society. 2. Ordinary water, after efficient filtration through spongy iron, does not contain any putrescent matter, or matter capable of inducing putrefaction. On the contrary, such filtered water possesses itself antiseptic properties, strong enough even to prevent, to some extent at least, putrefaction of fresh meat which has not been boiled before being exposed to the action of the filtered water. 3. Contact between the meat and spongy iron is not necessary to obtain that result. 4. Neither is the absence of oxygen in the filtered water to all appearance an essential condition. 5. It thus follows that the action of spongy iron cannot be wholly mechanical, but must be, in part at least, chemical, or, as far as the action upon organised bodies is concerned, physiological.

In the debate following, the PRESIDENT said that there is certainly a great weight of opinion in favour of the assumption that putrefaction does favour the development of the germs of disease, though experiments in the post-mortem room seem to contradict this. It is important to know whether other metallic bodies are capable of developing nascent hydrogen. It would be desirable to know if the water at its exit from the filter contains more iron. Ordinary Lambeth water, after being filtered through spongy iron, remains sweet and wholesome.

Mr. WANKLYN said that in conducting experiments such as had been detailed it is important to free the pores of the filter of all fluids, so that the analysis may be correctly made.

Dr. TRIPE remarked that he had sometimes found water more polluted at its exit than at its entrance to the filter, particularly where sponges are used. When, during the prevalence of high temperatures, the water gets warm, organic matter quickly developes in it by fermentation, and then summer diarrhœa prevails.

OBITUARY.

SIR ALEXANDER TAYLOR, M.D., F.R.S.E.

DR. TAYLOR, who died at Hampstead on the 18th inst., was the well and widely known English physician of Pau, Basses Pyrénées. He received his medical education in London and at the University of Edinburgh, and took the degree of M.D. Edin. in 1825. In the year 1835 he was appointed Staff-Surgeon to the English auxiliary force proceeding to Spain, where he was in charge of the medical hospital of the Casa de la Sociedad in Vittoria; and he was afterwards president of a board for granting pensions to wounded soldiers. He will, however, be generally remembered for his work on "The Curative Influence of the Climate of Pau, and of the Mineral Waters of the Pyrenees," which has passed through several editions; and for his work and influence in making known the value of Pau as a health-resort, he received, in 1865, the honour of knighthood. During the Franco-Prussian War, 1871, Sir Alexander took charge of an ambulance at Pau for the wounded of both nations; and for this service he was made a Knight (third class) of the Royal Crown of Prussia. He was a corresponding member of the Historical Institute of France, and was Vice-President of the Scientific Congress of France, at Pau, in 1873.

CHARLES BROOKE, M.A. CANTAB., F.R.C.S. ENG., F.R.S.

MR. CHARLES BROOKE, who died at Weymouth on the 17th inst., in the seventy-fifth year of his age, was for very many years one of the Surgeons of the Westminster Hospital, but was much more widely known as a man of science. He had the advantage of receiving a first-class general education, and, having been sent to St. John's College, Cambridge, came out a wrangler in the Mathematical Tripos of 1827. He pursued his professional studies at the Windmill-street School and at St. Bartholomew's. In 1834 he became a Member of the Royal College of Surgeons, and in 1844, being Surgeon and Lecturer on Surgery at the Westminster Hospital, he was elected an Honorary Fellow of the College. His tastes and his intellectual gifts, however, led him to the study and pursuit of pure and applied science more than of the art of surgery. He was rather a born scientist than a born surgeon. In 1839 he published a "Synopsis of Pure Mathematics." In 1854 he aided Dr. Golding Bird in preparing the fourth edition of his "Elements of Natural Philosophy," which forms one of Churchill's excellent series of manuals; and the fifth and sixth editions were brought out by Mr. Brooke alone, the sixth especially having been greatly "enlarged and revised." Mr. Brooke was Lecturer on Surgery at the Westminster Hospital Medical School till about 1863. He was also Lecturer on Natural Philosophy, and this part of his teaching he continued to undertake to the last. In 1869 he resigned the appointment of Surgeon, and was elected one of the Consulting Surgeons of the Hospital.

ROGER ST. CLAIR STEUART, M.D. AND C.M. EDIN.

MANY of the residents in the neighbourhood of Grange, Arnside, and Silverdale, will be very sorry to hear of the death of this young physician, who, during his brief residence at

Grange, gained many friends and the confidence of many patients. He was a student of the University of Edinburgh, where he graduated as M.B. and C.M. in 1873, and as M.D. in 1877. He studied also at the medical schools at Paris, Berlin, Vienna, and Würzburg, under noted specialists, and subsequently held several important hospital appointments. He accepted the position of assistant to Dr. Hamilton, of Windermere, in which capacity he acted for more than two years. His invariable kindness and sympathy were specially appreciated by the cottagers in and around Windermere, and his unselfish devotion to their interests has found for him a lasting place in their memory. Six months ago, suspicious symptoms of chest disease compelled him to leave Windermere, but he was still able to undertake work of a very light character, which he did under Dr. Harland, of Wadhurst. A week before he died, he rode on horseback eight miles to visit a patient, and in the execution of his duty caught a chill, resulting in inflammation of the lungs and pleurisy, from which, unhappily, he died at the early age of twenty-nine years.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the diploma were admitted Members of the College at a meeting of the Court of Examiners on the 21st inst., viz. :—

Barns, John G., Swindon, Wilts, student of Guy's Hospital.
Blair, Archibald, Peterborough, of University College Hospital.
Creagh, Stephen H., Stoke, Devonport, of St. George's Hospital.
Curd, C., L.S.A., Coombe Down, Somerset, of the Charing-cross Hospital.
Embleton, Dennis C., Newcastle-on-Tyne, of University College Hospital.
Fooks, George E., Harrow, of St. Bartholomew's Hospital.
James, Herbert E. R., Bury St. Edmunds, of the Charing-cross Hospital.
Knapp, Edward M. M., Clifton, of the Bristol School.
Mudge, Thomas H. T., Paignton, Devon, of St. Bartholomew's Hospital.
Parry, Robert, L.S.A., Festiniog, Carnarvonshire, of Guy's Hospital.
Shelly, C. E., B.A. Cantab., Leamington, of St. Bartholomew's Hospital.
Smith, Frank, Maida-vale, of the Middlesex Hospital.
Taylor, William C. E., Scarborough, of St. Bartholomew's Hospital.
Thorpe, Henry S., L.S.A., Hertford, of St. Bartholomew's Hospital.
Wilde, Frederick, Southampton, of University College Hospital.
Wilson, Frederick, Worsley, near Manchester, of the Manchester School.

The following gentlemen were admitted on the 22nd inst.:

Chaffey, Wayland C., Clapham, student of St. Bartholomew's Hospital.
Cresswell, J. C., Bromsgrove, Worcestershire, of the Middlesex Hospital.
Dale, Frederic, B.A. Cantab., York, of St. George's Hospital.
Edwards, James, Bala, N. Wales, of St. Bartholomew's Hospital.
Vaisey, T. F., Lechlade, Gloucestershire, of St. Bartholomew's Hospital.
Wilkins, Henry G. G., Ealing, of St Bartholomew's Hospital.

Eight gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and twenty-one candidates out of the sixty examined having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

The Fellowship.—The half-yearly Primary, or Anatomical and Physiological, Examination for the diploma of Fellow of the College of Surgeons was commenced on Friday, the 23rd inst., when the following questions were submitted to the sixty-five candidates at the written portion of the examination, when all four questions were required to be answered, viz. :—1. What is the loss of material, in kind and amount, which a healthy adult sustains in twenty-four hours? For what necessary physiological purposes is this expenditure undergone? How is the total amount shared by the different excretory organs, and by what means is the loss made good? 2. Describe the minute anatomy and development of the cochlea? 3. Describe the parts seen in a dissection, from skin to peritoneum, of the structures closing the outlet of the male pelvis. 4. Enumerate the nerves supplying the skin and mucous membrane of all parts above the level of the clavicles. State the source from which each is derived, and indicate its area of distribution.

At the oral examination on Monday, the 26th inst., the following gentlemen were reported to have acquitted themselves to the satisfaction of the Board of Examiners, and when eligible will be admitted to the Final Examination for the Fellowship, viz. :—

Hopkins, John, L.S.A., student of University College Hospital, diploma of membership dated July 28, 1875.
Howlett, Edmund Henry, of King's College Hospital, January 24, 1877.
Johnson, John, M.B. Melb., of the Melbourne School, January 31, 1876.
Lewis, Thomas Preston, M.B. Edin., of the Edinburgh and University College Hospitals, November 15, 1878.
Spark, John, L.S.A., of St. Bartholomew's Hospital, May 18, 1878.
Webb, John Rheece Wynn, of St. George's Hospital, July 27, 1876.
Webb, T. Law, L.R.C.P. Lond., of the Birmingham School, April 8, 1876.
Worts, Edwin, L.R.C.P. Lond., L.S.A., of Guy's Hospital, April 12, 1858.

Eight candidates were rejected. The following gentlemen passed on the 27th inst., viz. :—

Collingwood, David, student of the Liverpool and University College Hospitals.
Fenwick, Edwin H., of the London Hospital.
Fisher, Stephen H., of the London Hospital, May, 1875.
Fraser, Frederick W. D., M.A. Edin., of the Edinburgh School.
Gubbin, George F., of the Westminster Hospital.
Hoole, Henry, L.S.A., of the Charing-cross Hospital, January 27, 1879.
Jackson, Arthur, of St. Bartholomew's Hospital.
Jennings, Charles E., of the London Hospital.
Lane, James E., of St. Mary's Hospital.
Walters, Frederick R., of St. Thomas's Hospital.

Six candidates were rejected. The following gentlemen passed on the 28th inst., viz. :—

Bull, George C. R., student of St. Mary's Hospital.
Clark, Ernest, of St. Bartholomew's and the Cambridge Hospitals.
Corbould, Henry F., of the Charing-cross Hospital.
Firth, Robert H., of University College Hospital.
Pomfret, Henry W., of the Manchester School.
Rogers, James M., of the Middlesex Hospital.
Sanders, John W., of Guy's Hospital.
Trott, Dudley C., of Guy's Hospital.
Wainewright, Benjamin, of the Edinburgh School.

Seven candidates were rejected. The examinations were brought to a close on the 29th inst., when the following gentlemen passed, viz. :—

Battenham, John Williams, student of the Westminster Hospital.
Day, Donald D., of St. Bartholomew's Hospital.
Evans, William G., of King's College Hospital.
Hollhouse, Edwin H., B.A. Cantab., of King's College Hospital.
Jones, Robert, of St. Bartholomew's Hospital.
Mortimer, John D. E., of the Westminster Hospital.
Pearce, Walter, of St. Mary's Hospital.
Reid, Robert W., M.D. Aber., of the Aberdeen University.
Sherrington, Charles S., of St. Thomas's Hospital.
Stewart, Thomas P. A., of the Edinburgh School.

Twenty-eight candidates out of the sixty-five examined having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for six months.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 22 :—

Davidson, John, Willesden-lane, Kilburn.
Phillipps, William Alfred, Carlenford Lodge, Sydenham.
Young, Thomas Michael, South Shields.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Wasse, Gewas Miles, St. Thomas's Hospital.
Whitehead, Thomas Kay, Owens College, Manchester.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BATTLE, W. H., M.R.C.S., L.S.A.—Resident Accoucheur to St. Thomas's Hospital.

BEST, G. P., M.B. Cantab. M.R.C.S.E.—Resident Surgeon to the Aston Branch of the Birmingham General Dispensary, *vice* C. E. Gosling, resigned.

DAVIES, D. S., M.R.C.S., L.S.A.—Assistant House-Physician to St. Thomas's Hospital.

HASLAM, W. F., M.R.C.S., L.S.A.—House-Physician to St. Thomas's Hospital.

SMITH, R. P., M.R.C.S., L.R.C.P.—Senior Assistant House-Physician to St. Thomas's Hospital.

WILLIAMSON, J., M.A. Oxon., M.R.C.S., L.R.C.P.—Assistant House-Surgeon to St. Thomas's Hospital.

BIRTHS.

DUKE.—On May 24, at 9, Cornwall-road, Westbourne-park, the wife of G. Amos Duke, M.R.C.S.E., of a son.

HOFFMAN.—On May 22, at Fulham, the wife of H. W. Hoffman, M.B., of a daughter.

GREENFIELD.—On May 26, at 15, Palace-road, Albert-embankment, S.E., the wife of William Smith Greenfield, M.D., F.R.C.P., of a daughter.

KESTEVEN.—On May 26, at 401, Holloway-road, the wife of W. Henry Kesteven, M.R.C.S., of a daughter.

LEE.—On May 27, at 9, Savile-row, W., the wife of Henry Lee, F.R.C.S., of a daughter.

MANSON.—On April 26, at Amoy, China, the wife of Patrick Manson, M.D., of a daughter.

MARTIN.—On May 20, at 13, Chesterfield-street, Mayfair, W., the wife of J. H. Martin, M.D., Cambridge House, Portsmouth, of a daughter.

THOMAS.—On May 24, at Baltimore, Maryland, U.S.A., the wife of Richard Henry Thomas, M.D., of a daughter.

MARRIAGES.

NEWTH—MOSER.—On May 21, at Tulse-hill, Alfred Henry Newth, M.D., of Hayward's-heath, to Mary Ellen, only daughter of the late Richard Moser, of Tulse-hill, London, S.

DEATHS.

BALFOUR, CHARLES HERBERT, youngest son of Surgeon-General Edward Green Balfour, L.R.C.S. Edin., at 2, Oxford-square, Hyde-park, on May 27, aged 5 years and 5 months.

CORBETT, VIOLET LUCRETIA, daughter of Surgeon-Major W. H. Corbett, M.R.C.S. Eng., at Winchester, on May 22, aged 7 years and 3 months.

ENGLISH, THOMAS, M.D., at 10, Thurloe-place, South Kensington, on May 22, aged 57.

FERGUSON, JAMES CHAMBERS, M.B., at 2, Blackburne-place, Liverpool, on May 21, aged 71.

GROSS, JOHN EDWARD, M.R.C.S. Eng., at Gibraltar, on April 30.

HIRD, JAMES, M.R.C.S.E., F.S.A., at Bramsholt, Hants, on May 20, aged 86.

LEESE, GEORGE MACARTNEY, M.R.C.S., at 321, Camden-road, on May 19, aged 68.

MACNAB, WILLIAM, L.R.C.P. & S. Edin., at Skipton-in-Craven, Yorkshire, on May 21, aged 45.

SMITH, ANDREW ROBERTSON, late Staff Surgeon-Major, eldest son of the late Alexander Smith, M.D., of Forfar, at the Old Parsonage, Forfar, on May 26.

SWEETNAM, MICHAEL, M.D., Surgeon Indian Medical Service, sixth son of Stephen Sweetnam, M.R.C.S. Eng., of Schull, county Cork, at Akyab, British Burmah, on April 22.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, LONDON, W.C.—Junior House-Surgeon. Applications, with testimonials, to be sent in on or before June 11. Candidates must be unmarried and possess a legal qualification to practise.

RADCLIFFE INFIRMARY, OXFORD.—Physician. Candidates must be legally qualified to practise as physicians in England. Applications, with testimonials, to the Secretary, on or before June 6.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Cheadle Union.—Dr. J. Fitzgerald has resigned the Ipstones District; area 14,617; population 3749; salary £35 per annum.

Rugby Union.—Mr. C. L. Drew has resigned the Dunchurch District; area 14,454; population 2621; salary £40 per annum.

Staines Union.—The Shepperton District is vacant; area 2330; population 1390; salary £30 per annum.

Tiverton Union.—Mr. E. C. Hill has resigned the Thorverton District; area 4086; population 1062; salary £30 per annum.

Totnes Union.—Mr. P. A. Cornish has resigned the Ugborough District; area 11,200; population 1959; salary £30 per annum.

APPOINTMENTS.

Guildford Union.—Charles J. Sells, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., to the Wergleadon District.

Holsten.—Mr. Joseph H. Collins as Analyst for the Borough.

Romford Union.—William Bruorton, M.R.C.S., L.S.A., to the Fifth District.

York.—Mr. Wm. Procter, M.D., F.R.S. as Analyst for the City; remuneration by fees.

THE PHARMACEUTICAL SOCIETY'S DINNER AND CONVERSAZIONE.—The annual festal meetings of the Pharmaceutical Society, last week, were very successful. The dinner, which took place at Willis's Rooms on Tuesday, the 20th, was largely attended. Among the guests on the occasion were the Master of the Apothecaries' Society, the President of the Medical Society, Sir P. Cunliffe Owen, Professors Tyndall, Williamson, Dewar, and Bentley, Dr. B. W. Richardson, Mr. Erasmus Wilson, Mr. Callender, and other men of note in medicine and science. Good speeches were made, the evening was enlivened by excellent music, and all passed off very happily. The *conversazione*, at the South Kensington Museum, on Wednesday, the 21st, was attended by nearly 3000 visitors, and was as brilliant as usual.

MARRIAGEABLE AGE.—This is in Austria 14 for both sexes; in Germany, 18 for men and 14 for women; in Belgium, 18 for men and 15 for women; in Spain, 14 for men and 12 for women; in France, 18 for men and 15 for women; in Greece, 14 for men and 12 for women; in Catholic and Orthodox Hungary, 14 for men and 12 for women; in Protestant Hungary, 18 for men and 15 for women; in Italy, 18 for men and 15 for women; in Portugal, 14 for men and 12 for women; in Russia, 18 for men and 16 for women; in Roumania, 18 for men and 16 for women; in Saxony, 18 for men and 16 for women; and in Switzerland, in different cantons, from 14 to 20 for men and from 12 to 17 for women. —*Lyon Méd.*, May 21.

UNIVERSITY COLLEGE HOSPITAL.—The annual report of University College Hospital for the year 1878, which was presented at the annual meeting of the governors and subscribers on March 31 last, records the arrangements by which it is proposed to add forty beds to the present accommodation of the Hospital, thus bringing the total number of beds up to 200. The alterations necessary to carry out this arrangement are estimated to cost about £1000, and it is announced that the Hospital will be entirely closed from August 1 next to September 14, to enable the different works to be carried out. The Committee express their regret at having to announce the resignation by Sir William Jenner, Bart., and Dr. J. Russell Reynolds, of the position of "Physician to the Hospital," after a very lengthened period of service, and they unanimously record their appreciation of the very valuable services which these gentlemen have rendered to the Hospital and Medical School.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—At the annual general meeting just held, Dr. Holdsworth (the President) in the chair, the following report was read and adopted:—"The Committee have the pleasure to report to the Society a continuance of success. During the past year there has been a net increase of eighteen members, so that their number now reaches 201. Eight ordinary meetings have been held, at one of which Dr. Ross, of Manchester, kindly exhibited (with the aid of the oxyhydrogen light) a series of preparations illustrating certain pathological states of the spinal cord. The four gentlemen who, according to Law 17, are ineligible for re-election on the Committee are Drs. Symes and Ginders and Messrs. Nunneley and J. Walker. The remainder offer themselves for re-election. In the next session of the Society it is proposed to devote two evenings to the discussion of one or more of the following subjects:—'The Uses of Bleeding,' 'Counter-irritation,' and 'The Influence of Constitution upon the Course of Acute Disease.'" The following gentlemen were elected office-bearers for the coming year:—*President:* Mr. T. Pridgin Teale. *Vice-Presidents:* Mr. Hodgson Wright and Dr. Eddison. *Treasurer:* Dr. Heaton. *Hon. Secretaries:* Dr. Churton and Mr. Robson. *Librarian:* Mr. Horsfall. *Committee:* Dr. Clifford Allbutt, Mr. E. Atkinson, Dr. J. H. Bell, Dr. Cameron, Dr. Eddison, Dr. Holdsworth, Mr. Lodge, Mr. McGill, Mr. Seaton, Mr. Snell, Dr. Tibbits, and Mr. C. J. Wright. Thanks were unanimously voted to Dr. Holdsworth, the retiring President; Mr. McGill, the retiring Secretary; and to Dr. Heaton, the Treasurer of the Society.

FOREIGN BODIES IN THE ŒSOPHAGUS.—In a lecture upon this subject, Prof. Verneuil (*Gaz. des Hop.*, April 10) directed particular attention to the frequency with which all the symptoms of the presence of a foreign body may persist, even in an alarming manner, and sometimes for a long time (in one case more than a month), after the foreign body has been removed or has descended into the stomach. This is due to the laceration of the walls of the œsophagus produced by the body and the attempts at its removal, and is especially observed in hysterical and nervous subjects. As it is kept up by explorations of the œsophagus, these should never be repeated after the diagnosis has been exactly made, and that notwithstanding the persuasions of friends and relatives, who, unaware of the reflex nature of these symptoms, urge the repetition of the explorations. In withdrawing the exploring instrument, either with or without the foreign body, some difficulty may be found at the cricoid ring, where there is a notable projection into the interior of the œsophagus, and which is increased by the contraction of the cricoidean muscle. This may be overcome by practising a half-turning movement, instead of making traction in a direct manner Prof. Verneuil added that for foreign bodies in general, although in certain cases counselling the utmost promptitude, there are others in which extreme reserve is the best practice. Thus, where the foreign body causes no disturbance of the function of the part in which it is buried, researches for it may do more harm than good—*e.g.*, when a needle gets buried in the hand.

THE CRANIA OF ASSASSINS.—Dr. Bordier has communicated to the Société d'Anthropologie the results of the examination which he has made of thirty-five crania of assassins which had been exhibited at the Trocadéro. These crania are of considerable volume; but the frontal region, the seat of intellectual power, is somewhat less than ordinary.

The parietal region, which appears to be the seat of the motor centres, the centres of impulsion, and is found atrophied in apathetic and hypertrophied in agitated idiots, is in the assassin somewhat developed. The occipital region is pretty much as it is generally found to be. To sum up these, there is less reflection and more action than in other men. In these points these crania resemble the prehistoric or even protohistoric crania, in which the frontal region is found also somewhat smaller, and the parietal somewhat larger. This instantaneousness of action, which is supposed to characterise the assassin, would be a precious quality in the savage of the age of stone. The curious conclusion may be reached, that the criminal is an atavic being, resembling an animal which, born of parents long since domesticated, tamed, and accustomed to labour, suddenly manifests all the indomitable savagery of its earliest ancestors. Examples of this are found among animals, and in man criminals are the analogues of these. In the second part of his paper Dr. Bordier treats of the pathology of criminals. Among these thirty-six crania he found three to have been normal, twelve abnormal, and twenty-one pathological. The lesions were oftenest found in the parietal region, which is frequently hypertrophied in these crania.—*Progrès Méd.*, May 17.

Speed of Handwriting.—In his paper on writers' cramp, Dr. Beard states (*New York Med. Record*, March 15) that he has made many experiments with a view to determine the average speed of handwriting. He finds that between twenty-five and fifty words are written in a minute by those who are accustomed to write, the average being perhaps about thirty words where no time is lost in thinking or dipping the pen. He has made many experiments on Mr. Edison, the inventor, whose handwriting, when he writes slowly and with care (from fifteen to twenty-five words a minute) is "phenomenonally" clear and beautiful, resembling copperplate printing—not in a flowing, but in a cramped hand, the letters being often separated, as in print. When he rises to forty words in a minute, the writing is still more cramped, though yet legible; but with forty-nine words a minute it is quite illegible. Journalists write with a lead pencil—which as a class they generally use—from forty to fifty words in a minute. Experts on the type-writer can print, for a short time, at dictation, from 75 to 100 words in the minute; but in practice very few of those who use the instrument put down more than half that number. "I have made," Dr. Beard says, "some experiments with myself in order to ascertain how many single, disconnected, up and down strokes I could make with a pen, and find that from 175 to 200 a minute is about the limit, and very soon the hand becomes wearied."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

M.D. Lond.—The two words have the same derivation; but it is said that a retreat selected for valetudinarians on account of its salubrity would be more properly called a *sanitarium* than a *sanatorium*; the latter term more rightly signifying an establishment for the treatment of disease. We do not agree in the objection you make to the use of the latter term.

*** For calmness commend us to the following:—

"My dear Sir,—I have been working lately at the 'patellar tendon reflex' and am anxious to get some reliable information as to the frequency with which it is absent in locomotor ataxy. I will esteem it a great favour if you will kindly aid me in the matter, and send me notes of the cases you have examined with reference to this point, on the enclosed tabular form. "Believe me, my dear sir, yours very truly, "———.

"P.S.—I have sent a similar request to all the chief hospital physicians."

"Not Killed and Prepared for Food."—An application was made some days ago to the Birkenhead stipendiary magistrate to order the destruction of six pigs (part of a cargo imported from America) which were suffering from typhoid fever. Fifteen pigs were taken out of the ship dead, and the six in question had been conveyed to the slaughter-house, but the Court found that it had no power to interfere until the animals had been killed and prepared for food. Shortly afterwards the magistrate was informed that this had been done, and that if the carcases were allowed to leave the slaughter-house the Court would lose all control over them. Thereupon the order applied for was granted. It may be added that, in consequence of the prevalence of typhoid fever amongst swine from the United States, the Privy Council have recently issued an Order in Council, by which, after June 1 next, all swine landed from America will be slaughtered at the port of declarkation.

Anti-Vaccination and Mitigated Penalties.—The Leicester Board of Guardians have resolved to urge upon the magistrates that the fine imposed upon persons for non-compliance with the compulsory clause of the Vaccination Act should not in future cases exceed 5s. The borough magistrates have usually inflicted a fine of 10s. in these cases.

A Provincial Teacher.—At the primary examination for the Fellowship of the College of Surgeons, which was brought to a close yesterday, there were 65 candidates—viz., 46 metropolitan, 9 provincial, 5 metropolitan and provincial combined, 4 Scotch, and 1 Melbourne student.

Spontaneous Fires.—A useful hint may be taken from the following paper, lately read on this subject, before the French Academy of Sciences by M. Casson, in whose laboratory an outbreak of fire had occurred in consequence of the action of a current of air at a temperature of only about 77° Fahr. This had ignited some boards; and thus originated what would probably have been a serious conflagration had it occurred at a time when M. Casson was not there at once to extinguish it. Some members of the Academy offered confirmatory evidence as to the power of only warm air to ignite wood exposed to it for a considerable time. It was stated that pulverised charcoal, owing to its power of rapidly absorbing air, will often ignite spontaneously. After long exposure to warm dry air, the woodwork of a house is frequently reduced to a condition similar to that of this charcoal-powder. It is brought down to a porous, spongy state, capable of rapidly assimilating oxygen, and therefore of generating intense heat. An unsuspected danger may, from the causes here stated, often be imminent, and probably is the origin of many of the mysterious fires which occur.

F.R.C.S., Redruth.—Write to the Secretary of the College. The following will answer the other questions:—Last July, 307 Fellows attended and recorded their votes at the College, with the following result: Mr. Lund, 101; Mr. Wilson, 95; Mr. Gay, 92; Mr. Wood, 81; Mr. Power, 78; Mr. Lister, 76; Mr. Bryant, 62; Sir Henry Thompson, 58; Mr. Lee, 38; and Mr. Holt, 37. The first-named three gentlemen were elected. Mr. John Gay has been elected chairman of the Fellows' Festival; Mr. B. T. Lowne is the honorary secretary, and if you write to him you will no doubt be placed on the stewards' list.

Mr. Williams.—As a registered medical practitioner, as well as being a Member of the College of Surgeons, you can claim exemption from compulsory service on juries. It would be as well, when you find your name in the jury list, to claim the exemption, when the officer will cease to insert it.

The Neglect of Revaccination.—Dr. Dudfield, the Medical Officer for Kensington, in his report for April, after referring to the occurrence of several cases of small-pox, says: "I cannot pass over one significant fact, viz., that there is practically no revaccination going on in the South-west district, where most of our cases have occurred."

Urban and Rural Sanitary Works.—The Corporation of Nottingham have just opened some spacious baths in Gedling-street, the cost of which has been about £2500.——The Cardigan Town Council are about to erect new waterworks, and have purchased a site for the proposed reservoir.——At Lincoln, new dispensary premises have been erected in Silver-street.——A new cemetery is being laid out at Caistor, near Great Yarmouth.——Plans for the sewering of the town of Wigton are being prepared.——A new recreation ground, to be presented by the Marquis of Bute to the inhabitants of Cardiff, adjoining the Sophia Garden on the side of the Taff, and twenty-five acres in extent, is being adapted at the Marquis's expense for that purpose.——The Vestry of St. George-the-Martyr, Southwark, has decided to erect baths and washhouses in the densely populated district of Look's-fields, Old Kent-road, at an estimated cost of £15,000.——The Chippenham Local Board have approved plans for erecting some public baths.——The Luton Rural Sanitary Authority has decided to provide a supply of water for the village of Stopford.——The Goole Local Board have ordered the draining and sewering of five new streets in Old Goole, and the sewerage of Pasture and Marshfield streets in New Goole.——The Local Board of Wirksworth are about to provide supplies of water to that town, and to the hamlets of Bolehill, Steeple Grange, Gorsey Bank, and Miller's-green. The estimated cost is £3550.—The Oswaldthistle Local Board are considering the adoption of the Salford pail system of closets in the township.——The Derby Town Council have, it appears, abandoned the scheme propounded under the Artisans' Dwellings Act, on account of the expense. The Local Government Board have, however, demanded the grounds for such abandonment, after the Board had taken the necessary steps for obtaining a special Act for Derby.——The Watford Local Board of Health have commenced the construction of a new reservoir at some little distance from the town, at an estimated cost, with new main, etc., of £7483.——The Torquay water-supply has been extended to the parish of Cockington. The newly-constructed reservoir above the latter village is capable of holding 50,000 gallons.——A Local Government Board inquiry has been held at Bournemouth, in respect of an application from the Bournemouth Improvement Commissioners for sanction to borrow £19,550 for sewerage, etc., works.——At Leicester the Mayor has officially turned the first sod of the new public park, near the Abbey ruins, Leicester. The Corporation purchased the land, which comprises about forty acres, and the cost of laying it out will be £10,000.

COMMUNICATIONS have been received from—

Mr. John Chatto, London; Dr Gavin Milroy, Richmond, Surrey; Dr. B. W. Richardson, London; Dr. Robert Liveing, London; Mr. T. M. Stone, London; Mr. D. Colquhoun, London; Dr. F. Churchill, London; Mr. B. R. Wheatley, London; Mr. Van der Weyde, London; The Registrar of Apothecaries' Hall, London; Messrs. Fairless and Beesforth, London; Mr. Malcolm Morris, London; Mrs. Lowe, London; Mr. Edmund Owen, London; Dr. W. Squire, London; Mr. E. L. Hussey, Oxford; Dr. J. Williams, London; Mr. Howse, London; Dr. Churton, Leeds; The Registrar-General, Edinburgh; The Secretary of the Sanitary Institute of Great Britain; The Secretary of the British Medical Temperance Association; The Secretary of the Royal Institution; Mr. C. B. Crossley, Leicester; Mr. T. D. Acland, London; Mr. George Scharf, London.

BOOKS AND PAMPHLETS RECEIVED—

J. C. Ogilvie Will, M.D., Clinical Remarks on Gleet: its Causes and Treatment—Sir Henry Thompson, Clinical Lectures on Diseases of the Urinary Organs—Newton M. Shaffer, M.D., Pott's Disease: its Pathology and Mechanical Treatment—Rev. James Stormonth, A Manual of Scientific Terms—The Pharmacopœia of the British Hospital for Diseases of the Skin, London, edited by Balmanno Squire, M.B. Lond.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—El Siglo Medico—Night and Day—Indian Medical Gazette—Centralblatt für Gynäkologie—Students' Journal and Hospital Gazette—Neurological Contributions—National Anti-Compulsory Vaccination Reporter.

APPOINTMENTS FOR THE WEEK.

May 31. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. H. Morley, "On Swift."

June 2. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Karl Hillebrand, "On the Intellectual Movement of Germany from the Middle of the Last to the Middle of the Present Century." 5 p.m. General Monthly Meeting.

3. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. J. R. Seeley, "Suggestions to Students and Readers of History."

Royal Medical and Chirurgical Society, 8½ p.m. (Extra Meeting.) Dr. George Thin, "On the Pathology of Lupus." Sir Henry Thompson, "On an Operation for the Relief of Long-standing Hypertrophy of the Prostate." Prof. Humphry, "On Tumour in the Bladder removed by Perineal Incision."

4. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Epidemiological Society, 8½ p.m. Annual Meeting for Election of Officers, &c. Dr. Robert Cory, "A Detail of Experiments on the Vaccination and subsequent Removal of Supernumerary Fingers, apparently showing the imperfect protection afforded by vaccination when the vesicles are removed before their full maturity."

Obstetrical Society, 8 p.m. Specimens: Dr. Thorburn—Midwifery Forceps. Mr. Knowsley Thornton—Abdominal Tumour removed during Pregnancy. Mr. Alban Doran—Tubal Gestation. The Adjourned Discussion on the Use of the Forceps and its Alternatives in Lingering Labour."

Royal College of Surgeons of England, 4 p.m. Mr. Benjamin Thompson Lowne, "On the Physiology of Sensation."

5. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. J. R. Seeley, "Suggestions to Students and Readers of History."

6. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Royal College of Surgeons of England, 4 p.m. Mr. Benjamin Thompson Lowne, "On the Physiology of Sensation."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Prof. Dewar, "Spectroscopic Investigation."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 24, 1879.

BIRTHS.

Births of Boys, 1242; Girls, 1127; Total, 2369.
Average of 10 corresponding years 1869-78, 2165·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	799	698	1497
Average of the ten years 1869-78	695·6	637·6	1333·2
Average corrected to increased population ...	...	...	1416
Deaths of people aged 80 and upwards ...	...	...	58

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	8	3	4	3	4	...	5	...	2
North ...	751729	1	11	7	2	4	...	1	1	3
Central ...	354369	...	7	3	1	2	...	1	1	...
East	639111	2	16	4	1	18	...	1	...	3
South	967692	6	18	11	...	29	1	3	2	5
Total	3254260	17	55	29	7	57	1	11	4	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·840 in.
Mean temperature	53·7°
Highest point of thermometer	70·6°
Lowest point of thermometer	39·3°
Mean dew-point temperature	45·7°
General direction of wind	Variable.
Whole amount of rain in the week	0·35 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 24, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending May 24.	Deaths Registered during the week ending May 24.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2369	1497	70·6	39·3	53·7	12·06	0·35	0·89
Brighton	105608	44·9	66	33	67·0	41·6	51·1	10·62	0·35	0·91
Portsmouth ...	131821	29·4	85	46	62·0	44·0	51·0	10·56	0·43	1·09
Norwich	85222	11·4	59	41	66·2	42·8	53·0	11·67	0·32	0·81
Plymouth	74293	53·3	26	27	61·5	45·0	51·1	10·62	0·74	1·88
Bristol	209947	47·2	134	70	68·6	39·8	52·8	11·56	0·84	2·13
Wolverhampton ..	75100	22·1	43	33	65·5	40·6	49·7	9·83	0·68	1·73
Birmingham ...	388884	46·3	293	172	...	...	...	...	...	...
Leicester	125622	39·3	86	41	70·8	40·2	52·1	11·17	0·29	0·74
Nottingham ...	169398	17·0	118	65	70·5	36·6	50·8	10·45	0·62	1·57
Liverpool	538338	103·3	406	246	60·8	44·9	50·1	10·06	0·41	1·04
Manchester ...	361819	84·3	217	167	...	...	...	...	...	...
Salford	177849	34·4	134	84	...	...	...	...	...	—
Oldham	111318	23·9	77	40	...	...	...	...	...	...
Bradford	191046	26·5	137	69	59·9	42·0	48·7	9·28	0·77	1·96
Leeds	311860	14·5	195	111	63·0	43·0	50·4	10·22	0·28	0·71
Sheffield	297138	15·1	205	110	67·0	42·0	51·0	10·56	0·41	1·04
Hull	146347	40·3	117	65	65·0	37·0	49·7	9·83	0·74	1·88
Sunderland ...	114575	41·4	89	46	61·0	41·0	48·2	9·00	0·52	1·32
Newcastle-on-Tyne	146948	27·4	116	68	...	...	...	...	...	...
Edinburgh	226075	53·9	136	102	62·3	38·3	48·5	9·17	0·62	1·57
Glasgow	578156	95·8	373	233	61·5	40·5	51·0	10·56	0·49	1·24
Dublin	314668	31·3	217	211	62·9	36·7	52·1	11·17	0·38	0·97
Total of 23 Towns in United Kingdom	8502896	38·6	5698	3575	70·8	36·7	50·8	10·45	0·51	1·30

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·84 in. The lowest reading was 29·44 in. at noon on Sunday, and the highest 30·05 in. on Saturday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

GOUT IN RELATION TO LIFE ASSURANCE.(a)

By E. SYMES THOMPSON, M.D., F.R.C.P.,
Physician to the Hospital for Consumption, etc., Brompton.

Life assurance questions, although naturally most interesting to those connected with insurance offices, call for the consideration of all practitioners of medicine, and I make no apology for introducing the subject in this which is *par excellence* the London society of practical medicine.

Some attention has been given to the relation of heart disease to life assurance. Our distinguished Fellows, Dr. Broadbent and Dr. Fothergill, have written fully and well on the subject, but I am not aware that any precise evidence has been laid before the profession on the special subject of this communication.

An investigation has recently been made into the mortality of those insured at extra or "invalid" rates in an office to which I am attached as physician, and I wish to draw the attention of the profession to some of the results of this investigation.

The report on invalid lives, drawn up by the able and indefatigable actuary of the Equity and Law Life Assurance Society, whom I am happy to see here this evening, is based on numbers which are not very large, but the deaths have borne so marked a relation to the underlying "taint" or cause for which the extra rating was made, that the study of the cases in detail strongly confirms and strengthens the conclusions to which the figures point.

To refer for a moment to the class of lives in which an extra rating was made in respect of heart disease, it is interesting to note, in connexion with a paper read before this Society two years ago by our former President, Dr. Andrew Clark, "On the Relation between Mitral Regurgitant Disease and Life-Expectancy," that of five cases of mitral disease insured in the office above named, the average age of the insurers was thirty-five years, the average addition twenty-three years, and no deaths occurred during the period comprised in the report; whilst of the fifteen cases in which the nature of the cardiac lesion is not specified, the average age was forty-one, average addition eight years, and three deaths occurred.

In the class in which an additional rating was applied in respect of *pulmonary* defect—under this head are comprised cases of bronchitis, asthma, pleurisy, emphysema, blood-spitting, etc.,—the rating was insufficient (average addition eight years and three-quarters). Scrofulous tendency, bronchitis, and blood-spitting proved specially unfavourable; and as regards hæmoptysis, insufficient importance seems formerly to have been attached to it.

Among the cases in which an extra rating was made for *impaired health*, as judged by general appearance, those (sixteen in number) classed under the head "corpulence" should be mentioned. The average age of these corpulent folk on admission was forty-five and a half years, average addition six and a half years. Of these three died.

On the whole, it appears that danger arising from definite diseases has been fairly met, but not that indicated by a general unhealthy appearance. "Corpulence" and "plethora" have shown themselves to be far more serious conditions than they have been regarded hitherto.

The class rated up for "habits" proved most unsatisfactory. Of the eleven deaths four were from diseases induced by drink, three from pulmonary disease partly connected with the same underlying cause.

When bad family history co-existed with personal defect, the mortality has proved to be high, and the rating should therefore have been high also.

To pass to the special subject of this paper, let us now consider the effect of *gout*.

The prevalent idea that gout is conducive to longevity is based on the observation of a previous generation, in which the free imbibition of port wine was followed by occasional explosions of acute gout, often recurring for a quarter or perhaps half a century without leading to marked constitutional deterioration. We of the present generation inherit a susceptibility which makes us unable to take the bottle or two of port regarded by our grandfathers as their daily modicum, obliging us to adopt dietetic restrictions—*e.g.*, the avoidance of sugar and sweet wines—measures which, although perhaps successful in keeping off acute attacks, do not succeed in preventing the development of latent changes in the constitution and in the tissues.

There is an underlying truth in the old-fashioned notion that an attack of gout clears the system, and that the bodily functions are less oppressed after an acute seizure, the enforced abstinence entailed secures for a time relief from the oppressive influence of dietetic excess, and is thus a preventive of visceral mischief.

It not uncommonly happens, as in the case of a well-known Duke recently deceased, that an intermission in the regularly recurring attacks is accompanied by retrocession to the internal organs, and sudden death. This case, though insured in the office, is not entered in the tables, but adds to their force.

The term "gout" is here used in its comprehensive sense, rheumatic gout or chronic rheumatic arthritis being included as well as those cases in which well-marked unmistakable attacks of acute gout have occurred; and some cases have been "rated up" as gouty, in which the tendency had been noted, but no definite attack had occurred. In hereditary cases especially this tendency has been taken note of when the manifestation of the evil in the proposer for insurance has been slight. In the earlier years of the office the term "gout" appears to have been limited to recurring joint attacks; but in more recent years the wide extent of gout as a constitutional affection has been recognised, and thus a considerable number of insecure lives have been admitted, and have been grouped with the more typical cases which were formerly taken at a slight, though possibly adequate, extra rating.

From the actuaries' point of view it is a simple matter to apply a uniform extra rating in every case of gout, but the medical examiner knows how difficult it is to decide in a given case whether or not gout is present.

It must be admitted that some medical men seek for, and think they find, gout everywhere. A medical examiner to an insurance office, thus minded, might think he detected latent gout in every applicant; but, setting aside this tendency to exaggerate the frequency of the diathesis, there can be little doubt that, even in childhood, inherited gout shows itself in quinsy, granular throat, or large tonsils, tendency to liver congestion, clayey stools, to intestinal rather than nasal catarrh, to lithatey water and vesical troubles. Herpetic, eczematous, and squamous eruptions give evidence of the existence of this constitutional state.

As middle life approaches, signs of cardiac softening and enlargement show themselves, or of granular degeneration of kidney, or congestive changes in the liver. In these cases there is often a periodicity in the recurrence of the attacks analogous to that of the gouty seizure, even although no joint affections are present.

If epistaxis or bleeding piles should recur, the danger is thus kept under control, but the constitutional deterioration is present, which declares itself by premature death directly anything serves to lower the vital powers.

When a patient applies for treatment, the difficulty of diagnosis is considerable; but this difficulty is greatly enhanced when a person proposes to insure his life, for then, instead of aiding in the inquiry, he endeavours to conceal any latent taint and explain away every suspicious symptom.

It is, however, in these very cases that an accurate diagnosis is most important, for, as we have seen, in well-defined cases of gout in which acute periodic attacks of a sthenic kind affect one or two joints, the danger of constitutional deterioration is much less than in those cases of

(a) Read before the Medical Society of London in March, 1879.

gout in which the disease remains latent, and is not detected until the heart, the bronchi, or the kidneys are deeply involved, and tissue-change is actually established.

Recent investigations into the state known as "arterio-capillary fibrosis" have thrown light on the class of cases referred to. A universal diathetic tissue-change often long exists before manifest symptoms of heart or kidney disease occur.

The hard, full pulse, prolonged first cardiac sound, and accentuated second sound, mark this state. The blood contains unremoved refuse products which fail to pass freely through the renal and hepatic capillaries, and thus extra power is needed in the heart and arterial walls to keep up free circulation.

The modifications of cardiac rhythm frequently throw great light on the nature of latent morbid changes. An examination of the heart is often sufficient to suggest the existence of disturbed function of lung, liver, or kidney, and this without the need for sphygmographic or spirometric observations, which cannot readily be applied in insurance practice. Even the retention of effete refuse products in the blood is sufficient to alter capillary tension, to modify the character of the pulse, to make the apex-beat of the heart more forcible and sustained, the first sound prolonged and perhaps reduplicated, and the second sound accentuated. These changes in the cardiac rhythm are often the first evidences of latent disorder, and enable us to detect the presence not of gout only, but of many other constitutional defects.

Intermittent pulse should be named as a symptom which not unfrequently raises the question whether a life can safely be accepted at ordinary risks.

While occasionally connected with organic cardiac defect, more often it is an evidence of gouty dyspepsia, though sometimes of defective nerve-control over the organs of the circulation, independent, apparently, of gout or dyspepsia.

In any case, however, it is a symptom not to be passed over as of no moment, and its presence apart from other symptoms would, in my opinion, alone justify an extra rating.

If full investigation leads to the conclusion that there is no organic defect in the heart, we may yet conclude that the system is not a perfectly sound one—that, in fact, there is either latent gout or defect in the nervous system. Without going further into the question of sympathetic control over heart and arteries, we may, I believe, in the large majority of cases, conclude that the pulse would not intermit if there were no defect in the state of the blood or of the organs that convey it—a defect which, being latent, is the more likely to lead to illness calculated to shorten life.

If the defect were perceptible, steps would probably be taken to correct or control it; but if otherwise, the evil advances unchecked until the organism is seriously damaged.

No rule can, I think, be laid down as to the increased rate that should be made for intermittent pulse; this must depend upon other points in the case. If this symptom guides us to gout, to nerve-affection, or to organic lesion, it fulfils a useful purpose, and must be regarded as a valuable diagnostic aid rather than as a reason for extra rating.

TABLE I.

Deaths under age.	True Ages.		Office Ages.	
	Expected.	Actual.	Expected.	Actual.
40 . . .	·60	2	·30	1
50 . . .	3·43	8	2·37	5
60 . . .	8·82	12	8·42	8
70 . . .	12·63	18	14·77	14
All ages .	13·4	21	16·65	21

Seventy-three cases have been insured in the Equity and Law Life Office, in which extra premium for gout has been required. Had these been healthy lives, and accepted at the ordinary rates, the deaths "expected" and allowed for according to the tables would have been thirteen. But at the ages at which they were rated by the office (office ages in table) sixteen or seventeen deaths were allowed for. The number of deaths that actually occurred was twenty-one; and (as seen by the table) these took place at all periods of life, and not, as in the class of lung affections, especially before the age of forty.

TABLE II.—*Life Assurance Statistics: Gout.*

No.	Actual age.	Number of years added (extra rating).	Number of years from admission till death.	Causes of death.
1	57	2	2	Ulceration of bowels.
2	28	3	3	Fall from a horse.
3	46	3	3	Jaundice; tumour of liver.
4	60	2	13	Senile gangrene.
5	44	4	22	Pneumonia.
6	42	3	19	Fever, diarrhœa, and lung congestion.
7	36	3	6	Anæmia and exhaustion.
8	70	1	3	Syncope.
9	33	3	19	Congestion of brain.
10	59	4	7	Carbuncle.
11	49	3	9	Heart disease.
12	49*	2	19	Heart and liver disease.
13	51	5	14	Granular kidney and heart dilatation.
14	40	3	5	Granular degeneration of kidney; gouty.
15	35	3	12	Albuminuria.
16	37	3	21	Gout; kidney disease; dropsy.
17	46	3	15	Pleurisy and pericarditis from gout.
18	34	4	3	Gout and albuminuria.
19	40	3	3	Retrocedent gout.
20	42	15	4	Gout. (£10,000.)
21	69	7	5	Gout, with complications (stone).

* Lady.

Of these twenty-one deaths (which have been increased to twenty-four by the occurrence of three more since the tables were constructed), only four are clearly due to causes unconnected with the gouty diathesis. I refer to the one (first in table) from "ulceration of bowels," and the one (second) due to "fall from a horse" (I will not suggest that gout in the great toe caused this gentleman to loosen his stirrup !), and (third) that from "jaundice and tumour of the liver," and (fourth) that from "senile gangrene." Even in these two last-named cases it might be possible, were we so minded, to infer that gout was connected with the causation of liver congestion and jaundice in the one case, and with defective circulation in the extremities in the other.

If we look at the remaining cases on the list we are justified in making the assumption that gout may have had something to do with all.

No. 5, pneumonia, and No. 6, fever with lung congestion, many have owed their fatality to the gouty state known to have existed twenty years before. No. 7, "anæmia and exhaustion," and No. 8, "syncope," are very common modes of death in chronic asthenic gouty states. Congestion of the brain (No. 9) is, on the other hand, a frequent result of gout in plethoric subjects. The relation of carbuncle (No. 10) to gout requires no comment.

Next on the list we come to (Nos. 11, 12, and 13) three cases of heart disease, the second complicated with diseased liver, and the third with granular kidney, the ages at death being respectively, in the three cases, fifty-seven, sixty-eight, and sixty-five.

Following upon these are No. 14, "granular degeneration of kidney," certified as gouty, and No. 15, "albuminuria," which, as it occurred in one known to have been gouty twelve years previously, may be safely attributed to the same cause.

The six remaining deaths, as shown by the certificates, were due directly to the evil influence recognised as a reason for the extra rating. Two of these (Nos. 16 and 17) lived to the ages of fifty-eight and sixty-one respectively; but of the four remaining cases (Nos. 18, 19, 20, and 21) death occurred within five years of completing insurance. Add to these cases No. 14, and we have five cases in which the fatal result was certified as caused by gout within five years of the insurance being completed.

In these five cases so little was the danger realised by the medical examiner that the addition made was three years in two cases, four in one, seven in one, and fifteen in one. A considerable addition this last for a person aged forty-two; yet, as the event proved (death in four years), perfectly inadequate to save the office from very serious loss. The sum insured in this case was £10,000. Four annual premiums

at the office age (fifty-seven) would, with interest at 4 per cent., amount to about £1800; the loss to the office would therefore be more than £8000.

Of the twenty-one cases, not one, even at the "office ages," and notwithstanding the extra rating, reached the calculated expectancy. (See Table III.)

TABLE III.—*Expectancy of Life at Different Ages.*

At age.	Should live.	At age.	Should live.
At birth . .	38¾ years.	At 40 years .	27¾ years.
1 year . .	44¾ „	50 „ .	21¼ „
5 years . .	51¼ „	60 „ .	14½ „
10 „ . .	49 „	70 „ .	9¼ „
20 „ . .	41½ „	80 „ .	4 „
30 „ . .	34½ „		

Case 4, taken (with two years added) as sixty-two years of age, lived thirteen years, the expectancy being thirteen years and a half.

Case 5, taken (with four years' addition) at the office age of forty-eight, should have lived twenty-two and a half, instead of twenty-two years.

Case 12, taken (two years added) at fifty-one, lived nineteen years, but should have lived twenty and a half.

Case 6, taken (three years added) at forty-five, should have lived, in accordance with expectancy table, twenty-four years and a half, but died in nineteen years.

Case 16, taken (three years' addition) at forty, should have lived twenty-seven years and three-quarters, instead of twenty-one.

So that in these, the most favourable cases in the list, it is fair to assume, even from this point of view, that the gouty constitution was instrumental in shortening life. General experience confirms the statement that a very large number of gouty subjects die between fifty-five and sixty-five years of age, who but for the gout would probably have lived on for years.

In these five selected cases above named the additional rating proved nearly sufficient, life having been continued for a considerable number of years; but in the remaining sixteen cases it proved quite inadequate.

It is with no intention of casting discredit on the judgment of the medical officers that I draw attention to these facts. As much discrimination, skill, and judgment has been shown in the medical selection of lives in this as in other offices—the success of the office as regards its "invalid lives" being the strongest confirmation of this opinion. So far as I have been able to ascertain from the experience of other offices, a similar rating for "gout" has been customary; and I believe that a somewhat similar experience as regards the unsatisfactory issue of such lives has been noticed by other insurance medical officers, though I am not aware that any such conclusions have hitherto been made public.

Looking back for a moment at Table II., I believe that it affords a very fair specimen of the causes of death in gouty subjects. This general survey confirms strikingly the conclusion to which the figures point, viz., that gout adds so seriously to the risk of premature death, that undoubted cases of this disease, or even those in which there is distinct reason to suspect its existence, ought not to be accepted at ordinary rates, or with so small an addition as three or five years, as has heretofore been customary.

The experience of the Equity and Law Life Office shows that an extra rating of 10 per cent. in all cases of gout is not sufficient to cover the extra risk.

It appears from the succeeding table, which gives a rating of 25 per cent., that the risk would almost exactly have been covered by the addition of that amount.

TABLE IV.

Deaths under age.	Expected.	Actual.
40 . . .	1·37	2
50 . . .	7·50	7
60 . . .	16·66	14
70 . . .	20·32	20
All ages . .	20·46	21

It will be seen that this rating makes the *actual* and *expected* deaths very nearly alike.

It is not customary for the medical officer to suggest any fixed percentage addition, but rather to suggest the number of years that might fairly be added to the life in fixing the annual premium. It may therefore be well to mention that 25 per cent. added to the premium is equivalent to the following rating:—

Ages.	Rating.	Ages.	Rating.
20 to 29	9 years.	45 to 49	6 years.
30 39	8 „	50 59	5 „
40 44	7 „	60 and upwards	4 „

Having dealt with the twenty-one deaths, let us look for a moment at the other cases. Of these *thirteen* have been *surrendered* at intervals ranging from two to fourteen years. *Three* policies have *lapsed*; *four* term-policies have *expired*, and *one* has become *void*. Of those now in force—

7	have been in existence	between	1 and	5 years.
6	„	„	5 and 10	„
9	„	„	10 15	„
4	„	„	15 20	„
1	„	„	20 25	„
2	„	„	25 30	„
1	„	„	for 30	„

Of the four cases that have been from fifteen to twenty years in force, the ages on entry were 41, 45, 45, 50; and the present ages, 59 62, 63, 69 (or, at the *office ages* on entry, 44, 48, 49, 52; present ages, 63, 65, 65, 71). Or, if we take the last four cases of all, that have been in existence from twenty to thirty years, the ages on entry were 46, 33, 35, 34; and present ages 70, 60, 64, 64 (or, at *office ages* on entry, 48, 36, 38, 37; at present, 72, 63, 67, 67). So that, of the whole number, but one has reached seventy years—which appears to be worthy of notice when taken in conjunction with the fact that many were advanced in middle life when accepted.

The medical examiner must of course base his judgment upon the probabilities of life in the case actually before him, and it would not be right for him, directly he distinguished the case as one of gout, simply to apply the rule at which actuarial calculations have arrived, for thus he would apply the same rate to a case of marked hereditary and acquired gout as to one in which the evidence of the existence of the evil was only just sufficient to enable him to take note of its probable existence. But he should remember, when suggesting a light extra rating—*e.g.*, the addition of three or five years—that to make a general average extra rating of 25 per cent. for the whole class he must put more than the suggested number of additional years to the well-marked cases, and be prepared altogether to exclude a considerable number.

Thus only can he hope to secure that average which the medico-actuarial investigation of results has shown to be right.

When the cases are actually before us there is a danger lest we should over-estimate the special circumstances in favour of the life, and so give a lower rating, while forgetting that in cases not thus exceptional a higher than the average rating is called for if we would maintain the determined average.

A point which might at first sight seem to have no medical bearing may be noted here. When insurers elect to insure their lives in accordance with the *without profit* table—*i.e.*, pay a lower premium, and sacrifice the prospect of securing any bonus addition to the sum assured—we may often rightly infer that they do so because they do not regard themselves as likely to live long enough to benefit by the bonuses (made usually at each quinquennium).

These assurers may certify, in answer to inquiries, that they are not aware of any circumstances likely to interfere with longevity, but at the same time they have a shrewd, often well-grounded, suspicion that their lives will be prematurely cut short. Such being the case, it is well for the medical examiner to make an especial scrutiny in such cases, with a view to ascertain, if possible, what is the reason why the "without profit" section has been selected. This inquiry not infrequently leads to the discovery of facts which might otherwise have escaped observation. Thus only will the large mortality found to exist among the "without profit"

section be reduced to the level, or nearly to the level, of the "with profit" section.

No doubt, with every care, cases are passed at the ordinary rates which ought to be refused; and, on the other hand, cases are refused which are really insurable. Persons are fond of casting discredit upon the offices and their medical advisers by quoting their own case. Thus, a gentleman, seventy years of age, who consulted me last year, was refused at the age of twenty-three; had he been accepted he would have proved a valuable life to the office. But he had throughout more than fifty years of his life suffered from aortic regurgitation, and at the time I saw him he had also distorted joints from rheumatic arthritis, albuminuria, stricture, and hemiplegia. The case may have been justly refused as belonging to a class in which the risk of early death was too great to justify acceptance, and ought certainly to have been declined by an office which only accepted first-class lives.

Another case is that of a gentleman, now sixty-four years of age, and in good health, who (when twenty-four), at the time of his application, was suffering from severe palpitation and irregular cardiac action, the result of exhausted nerve.

Another case now under observation is one of heart disease with great hypertrophy, in which fair health is maintained at the age of sixty, though insurance was declined at the age of thirty-five, on grounds probably fully adequate.

Accumulating experience justifies the conclusion that cases of heart disease are frequently insurable, though at a high rate, yet we must often refuse cases in which a favourable prognosis might be ventured upon if the applicant came to us as a patient.

Since writing this paper I have seen the results of a similar investigation, made to test my conclusions, into the gout class of another assurance society, where the number of cases was 321 (the years of observed life were 3984·5, or 12·4 on the average of each case), and the deaths 183. The experience derived from this considerable body of facts, though less adverse than those shown above, is strongly confirmatory of my conclusions, both as to the need for a substantial increase of premium—probably not less than 20 per cent.—and as to the close connexion between the causes of increase and cause of death. Classifying the deaths on the same basis as those of the Equity and Law, 127 out of the 183 may be attributed to disorders probably associated with gout; of these no fewer than twenty were due directly to that malady.

Opium-eating in the United States.—Dr. Marshall, of Michigan, and Dr. Wright, of Indiana (who has coined the word *opiophagy*), from prolonged statistic inquiries have come to the conclusion that this habit is greatly on the increase in the United States. Thus, in 1867, with a population of 37,000,000, there were imported 136,000 lbs. of opium; and in 1876, with a population of 40,000,000, the quantity had increased to about 340,000, or much more than double. In answer to circulars sent by Dr. Marshall, ninety-six physicians in Michigan reported 1313 habitual users of opium.—*New York Med. Record*, April 5.

Banquet to Prof. Gross.—The *Boston Med. Journal* (April 24) furnishes an account of a grand banquet given at Philadelphia to Prof. Gross, of Jefferson Medical College, on the occasion of his having completed his fiftieth year as a practitioner and professor. Among the guests, nearly 150 in number, and presided over by Prof. Agnew, were many of the most distinguished men in the profession, some of whom had come very long distances to be present. After receiving a gold medal, struck for the occasion, Prof. Gross returned thanks in an interesting address, embracing an autobiographical retrospect of his career. He stated that his life as a public teacher had extended over a period of forty-five years, during which long period he had missed but few lectures from illness or other cause. He has held his present chair of surgery in Jefferson College since 1856, and during his career he has signed upwards of 5000 diplomas. "Of the thirty-seven colleagues with whom he has at various times been associated, twenty-six have fallen by the wayside, for the most part ripe in years and full of honours, leaving eleven survivors, amongst others Willard Parker, Austin Flint, and John N. Draper, of New York, Benjamin Silliman, of New Haven, and our distinguished townsman Joseph Pancoast—five men of whom any profession in any country might be justly proud."

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING THE
TREATMENT OF FIBROIDS OF THE UTERUS BY ERGOT.

By G. ERNEST HERMAN, M.R.C.P.,
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In the following communication I give a report of every case of fibroid of the uterus treated by ergot (or its active principle, sclerotic acid) of which I have notes. In the cases chosen for record, no selection whatever has been made. I have taken the cases as they came, and treated each one in which there were any symptoms at all due to the tumour with ergot. If there have been any such cases in my practice, records of which I have omitted or overlooked, it has been from purely accidental circumstances, and not from any choice of my own. The hypodermic method has the disadvantages of being painful, and of requiring the patients to be seen more frequently and watched more closely than is practicable in the out-patient department of a London hospital; and therefore, in my cases, the drug was mostly administered by the mouth.

I. A Case in which Diminution in the Size of the Tumour took place.

Case 1.—*Fibroid Tumour of Uterus—Leucorrhœa—Diminution in the Size of the Tumour following Hypodermic Injection of Sclerotic Acid.*

(Reported by Mr. LEADBEATER.)

L. M., aged thirty-one, machinist, single. Admitted into the London Hospital, September 4, 1878.

With the exception of scarlet fever when aged nineteen, patient had had good health until eight weeks before admission. She had been a machinist since sixteen years of age, and had sat very closely to work. She first menstruated when aged sixteen, and had been regular ever since; the flow was scanty, and not painful.

Her complaints were of swelling in the lower part of the abdomen, with dull aching pain in that region; of leucorrhœa—all which had come on during the last eight weeks; and of during the same period getting thin and pale.

She was wasted, pale, and anæmic. There was a firm, tolerably symmetrical and rounded tumour in the lower part of the abdomen, reaching to the umbilicus; the cervix uteri was small and hard. On account of smallness of vagina and rigidity of the abdominal muscles, examination was difficult; and as different opinions had been expressed about the tumour, it was thought well to make an examination under anæsthesia. This was done on September 22, and the tumour was found to be unquestionably uterine. It was movable, and moved with the cervix. The sound and the gum-elastic bougie entered three inches, the direction of the canal being upwards, backwards, and to the right. The tumour reached to the umbilicus.

When admitted she was put on middle diet, with milk, and given five grains of ferri et quinæ cit. three times a day. On September 14 this medicine was changed for a mixture containing a bitter with sulphate of magnesia, and on September 24 this was replaced by one containing sulphate of iron, sulphate of magnesia, and sulphuric acid. On September 29 the subcutaneous injection of sclerotic acid was commenced, half a grain being injected daily over the region of the tumour. This was continued till November 19, when the sclerotic acid was changed for ergotine, half a grain being the dose. This was daily administered till she left the hospital. She was kept in bed till October 15; after that allowed to get up. She had been examined several times before the hypodermic use of sclerotic acid was begun, and the position of the tumour noted (the last time on September 26), and the level of the upper part of the tumour was constantly found to be that of the umbilicus; so that its reaching to this point did not seem due to any temporary condition of the tumour or of other viscera. After the injections, the tumour began steadily to diminish in size, and on October 7, after nine injections had been given, it was noted that there was room for two fingers between the summit of the tumour and the umbilicus. The decrease in size was most rapid at

first; it afterwards became more slow. On November 23 the highest part of the tumour lay two and a half finger-breadths below the umbilicus. On October 17 she began to menstruate, and the flow lasted till November 9: it was more copious than usual. She said that her pain was relieved on the appearance of the flow, and during the remainder of her stay in hospital she did not again complain of pain. On November 28 she was discharged, at her own wish. February 3, 1879, she attended at the hospital, in answer to an inquiry. She still had much pain. She had menstruated regularly since discharge, but not copiously. There was still room for two fingers and a half between the summit of the tumour and the umbilicus. The hypodermic injections, both of sclerotic acid and of ergotine, produced red, indurated swellings round the point of puncture, the largest of which was about the size of half a cherry. No difference was noted in this respect, either by the patient or by those who injected the drug, between the two preparations. No suppuration ever took place. On account of these indurations in the skin over the tumour, it was difficult to ascertain whether the diminution in size of the uterus was accompanied with increased hardness or not.

II. Cases in which Marked and Persistent Improvement in Symptoms followed the use of Ergot, although the Size of the Tumours was not Lessened.

Case 2.—Fibroid Tumour of Uterus—Hæmorrhages—Leucorrhœa—Ergot taken Internally for Three Months, and followed by Relief to Symptoms for at least a Year.

E. S., aged twenty-nine, a mariner's wife, came to the obstetric out-patient department of the London Hospital on August 23, 1876. She said she had never been strong since the age of thirteen, at which time she had some dead bone removed from the right arm and the left leg. She had had ague when sixteen years old, and again when twenty-five, but no other severe illness. She began to menstruate at thirteen. Until two or three years ago the catamenia recurred with regularity, but once in three weeks, the flow lasting nine days, about two napkins per diem being required. The amount of pain was variable. She was married at seventeen, but her husband died six months afterwards. She did not become pregnant. She then became a servant, until, when aged twenty, she was again married. But she had never any sign of pregnancy until two years ago, when she had a doubtful miscarriage. She went for four months without menstruating, and then followed a great hæmorrhage; but no fœtus was observed. No doctor was sent for. During the last two or three years menstruation had come on every fortnight, and the flow, though lasting as before (nine days), had become more profuse. The pain had not increased. During the six weeks prior to attendance the hæmorrhage had been continuous. She had not lost flesh. There was never any pain in micturition or defæcation. At times she had been unable to hold her urine long. She was a woman of middle height, well developed, and well nourished—indeed, rather fat,—but somewhat pale and anæmic. On vaginal examination, the cervix uteri was found to be small and firm, and the os externum small. A firm hard tumour, rounded and somewhat bossy, was felt to the right of, and rather in front of, the uterus. This tumour seemed to be in size a little larger than a normal fundus uteri. On account of the patient's contraction of her abdominal muscles under examination, the situation and extent of its attachment to the uterus could not be accurately made out. I was not able to pass either sound or flexible bougie more than an inch and a half. The great hardness, the rounded shape, and the size of the tumour, led to the diagnosis of a fibroid of uterus. There were no physical signs of disease in any other organ. Except hæmorrhage and leucorrhœa, languor and debility, she had nothing to complain of.

On September 13 she was ordered ext. ergot. liq. ʒss., spt. amm. arom. ℥xx., in ʒj. of water, three times a day; and this she took until December 23.

On November 22 it was noted that the intermenstrual period had increased to between three and four weeks; the flow now lasted only three days, the quantity lost being scanty. There was now no leucorrhœa.

On December 28 she said that she thought she was quite well, except that she was weak. She was told to leave off treatment, but to come and show herself in three months' time.

On April 4, 1877, she came again to the hospital. The catamenia had been regular since her last visit, but now lasted eight days. The quantity lost, however, was not so great as before coming to the hospital.

On August 1 she again attended. The catamenia continued to be regular, but scanty. There was very slight leucorrhœa. The tumour was still to be felt, and was thought, if it had altered at all, to have slightly diminished in size.

Case 3.—Fibroid Tumour of Uterus—Dysmenorrhœa—Menorrhagia—Pain—Aortic Regurgitation—Diminution of Hæmorrhage following the administration of Ergot.

K. T., aged forty-two, omnibus conductor's wife, came to the obstetric out-patient department of the London Hospital on September 23, 1876. She stated that she had never enjoyed robust health; never had rheumatism or rheumatic pains prior to menstruation; had been subject to epistaxis. She first menstruated at eleven; had always been regular, the flow being copious, lasting six to eight days, and attended from the beginning with pain severe enough to lay her up. She was married at twenty-two, but was never pregnant. After marriage the catamenia became more copious. Her health had never been good since marriage. She had suffered from white discharge before marriage; this discharge then became yellow. She began to have constant pain in the left iliac region, and there was dyspareunia. Two years after marriage she was treated in St. Thomas's Hospital under Dr. Waller; was "burnt," with benefit. Four years after marriage she was in Guy's Hospital for two months; was leeched, but got no benefit. Seven years after marriage she was in St. Mark's Hospital, and had some operation performed upon her rectum.

Both before and after marriage she had worked hard at dressmaking. For the last nine years she had suffered from pain at the epigastrium after food, followed and relieved by vomiting, flatulence, and looseness of the bowels; and her appetite, never good, had got still worse.

For the last two years the catamenia had been getting more copious, and the patient pale and weak.

She was a little woman, who looked older than she was. She was very anæmic and sallow, her skin being of a waxy colour. The heart's apex-beat was felt below the sixth rib, vertically under the nipple; its impulse was slightly heaving. There was a diastolic murmur heard all over the cardiac region, loudest at the base. The heart's action was regular. There were no signs of lung disease, except slight emphysema. Neither hepatic nor splenic dulness was increased.

A firm, hard, nodular, movable tumour could be felt rising out of the pelvis, and reaching not quite half-way between the pubes and the umbilicus, the greater part of it being to the right of the median line. Per vaginam, the same tumour could be felt through the anterior vaginal wall. It was continuous with the cervix, and moved with it. The os was transverse, its lips everted and slightly abraded. The sound entered four inches and a quarter.

She was given ext. ergot. liq. ℥xx., spt. amm. arom. ℥xx., dec. cinch. ʒj., three times daily; and she took this during the time she was under my care.

On October 17 it is noted that she said she had lost less blood, and had less pain since being under treatment.

On December 16 she said the hæmorrhage was still less, and the pain better. After this date she ceased to attend; and I have no further record of her case.

Case 4.—Fibroid Tumours of Uterus—Hæmorrhage—Pain—Relief to Hæmorrhage following the use of Ergot.

Of this case I unfortunately have not a very full record.

S. E., aged forty-nine, bricklayer's wife, came to the London Hospital obstetric out-patient department on July 18, 1877. Her complaints were—hæmorrhage (the catamenia being regular as to time, but excessive in quantity); pain, referred to the lower part of abdomen and back; difficulty in micturition; occasional pain on defæcation; and that she was getting thin and pale. She was a woman with white hair, which made her look older than she was. She was very anæmic and pallid, her skin being of a yellowish colour. On examination, a large, hard, irregular tumour, presenting rounded lobes and nodules, could be felt occupying the lower part of the abdomen. It reached highest on the right side, where it extended about a finger's-breadth

above the umbilicus. A blowing murmur could be heard over it, most loudly at the sides. It was movable, and, on vaginal examination, the cervix uteri and the tumour were found to move together. She was given ext. erg. liq. ʒ ss., spt. amm. arom. ℥xx., aq. ad ʒj., three times a day. This she took more or less regularly till April 16, 1878. It was during this period several times left off, but was resumed at the patient's own request. At this date it was noted that the hæmorrhage was much lessened. The pain remained much the same. It was the relief to the hæmorrhage that the patient found to follow the medicine which made her come back for it.

Case 5.—Fibroid Tumour of Uterus—Hæmorrhage—Dysmenorrhœa—Leucorrhœa—Relief to Symptoms following the use of Ergot.

L. E., aged forty, labourer's wife, came to the obstetric out-patient department of the London Hospital on June 16, 1877.

History.—She had never enjoyed good health; was always ailing. She suffered from "weakness" and "general debility." Up to the age of fourteen she could not retain her urine. She had had no definite illness, except some attacks which she called "fevers," but which, from the symptoms, seemed to be connected with the uterus. She had always been in poor circumstances, often having been in want of food. From the age of fifteen till marriage she was a general servant, and worked very hard. She first menstruated between the ages of fourteen and fifteen, and was regular until she became pregnant. The flow lasted five or six days, and was copious; it was attended with pain across the back, somewhat like that of labour, as if something would force from her. This pain used to come on two or three days before, and cease on the second day of the hæmorrhage. For two or three days before the flow she always felt very heavy and sleepy; but neither this nor the pain obliged her to lie up. She was married at the age of twenty-four, and twelve months afterwards was delivered, in the seventh month of pregnancy, of a stillborn child. The labour was believed to have been brought on by a fall: the details as to this and as to the labour she had forgotten. She had never been pregnant since. Five years after marriage she became a widow. She married again when aged thirty-six. Up to the last five years menstruation was much as it had been before marriage. Since then the catamenia had been getting much more copious, latterly lasting from seven to nine days, the quantity each day being about two or three times as much as she had been accustomed to lose. They were regular as to time, and there was no intermenstrual hæmorrhage. The flow was preceded and followed by leucorrhœa, and towards the end of it there was pruritus. During the last two or three years the pain at the menstrual period had much increased, and for six months had been so bad as to lay her up. During the last year the catamenia at one time ceased for four months without known cause. During this period she felt quite well; but since then the pain and hæmorrhage had been worse. For two or three years she had had pain on defæcation. She had pain on making water during the menstrual period, but not at any other time. Since she had suffered from these excessive hæmorrhages she had often felt faint. For five years her appetite had been bad, and the bowels confined; but for the six months prior to coming to hospital the bowels had been regular, and her appetite had improved. She said she had been losing flesh for four months. She was a moderately well-nourished, but pale, sallow, and anæmic woman. The uterus was irregularly enlarged and very hard—distinct hard, rounded, projecting nodules being felt to the left and in front of it. It was movable, and there was no pain on moving it. The cervix was small, firm, and the os externum round. The passage of the sound showed that the uterine cavity was rather curved forwards, the bulk of the enlargement being posterior to it; its length was four inches. There was no abdominal tenderness. No evidence of disease in any other organ could be detected. She was given ext. erg. liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., three times a day.

On July 4, tr. nucis vom. ℥x. was added to each dose of the above.

On August 4 she stated that her last menstrual period had lasted five days, the quantity each day being less than formerly, and with less pain. She had no leucorrhœa, and her pain in micturition was better.

September 26.—She had had no hæmorrhage since the last note. The nodules mentioned above it was thought were rather more distinct, as if getting pedunculated. No pain in micturition. She was told to leave off treatment, and to come in three months' time.

On December 15 she again attended. She had last menstruated between October 1 and 8, scantily, and without any pain to speak of. She had gained flesh; her relatives congratulated her on her improved appearance, and she thought herself unusually well. But on December 8 she shivered, felt cold all the evening, and in the night between the 8th and 9th began to lose blood, and the hæmorrhage soon became very copious. She had much pain, which she pointed out as situated in the region of the right ovary and the right sacro-iliac synchondrosis. The pain was not like labour. On examination the uterus was found in much the same condition as before, except that there was a spot of great tenderness at the upper and right part of the organ. She was given ext. erg. liq. ʒ ss., spt. amm. arom. ℥xx., liq. morphiæ hyd. ℥xv., aq. ad ʒj., three times a day; and a blister to be applied over the seat of pain; and she was advised to keep her bed.

She did not again attend until September 11, 1878, when she stated that she had continued ill for three weeks after her last attendance—so much so that she could not come to the hospital, and a medical man had attended her at home. She had had no hæmorrhage since March. No pain of any kind. Slight leucorrhœa. The condition of the uterus much the same.

ON A FORM OF PYROSIS CAUSED BY THE ASCARIS LUMBRICOIDES.

By E. MARLETT BODDY, F.R.C.S., F.S.S., etc.

In my remarks upon the various conflicting and confusing symptoms owing their origin to the presence of the Ascaris lumbricoides in the intestinal canal, which appeared some time ago in the *Medical Press and Circular*, I endeavoured to show, by the aid of a few interesting and unique cases, that these parasites are frequently present in the intestines without our being cognisant of the fact, because of the peculiarity of the phenomena which are developed by the parasites, and to their non-discovery in the excreta. I also showed that any treatment which did not tend towards their expulsion is *de facto* useless, and in the end exceedingly detrimental to the recovery of the sufferer.

Since writing the paper to which I refer, I have come across a most peculiar case, partially simulative of pyrosis, and accompanied by symptoms presumably indicative of dyspepsia and of gastrodynia, to which latter morbid condition I at first ascribed them, owing to their severity; but I soon found that I was in error by reason of the symptoms remaining as severe as when I at first saw the case. I am sure that, had not the worms been ejected, any treatment of the symptoms to which they had given rise would have been of no utility in the least, and the patient, very probably, would have gone on taking medicine, and yet getting from bad to worse, till either the system had given way, or Nature by a supreme effort had ridded herself of her unseen and unsuspected assailants; also, the patient would have been supposed to have succumbed to a malady apparently incurable, owing to the primary cause not being diagnosed in time; besides, had the administration of an active aperient been omitted, the case would very probably never have been satisfactorily elucidated.

Charles——, aged thirty-six, a small farmer, in appearance extremely debilitated and emaciated. The face, though tanned through constant exposure to atmospheric changes and influences, was pinched and haggard, and his eyes were dull and heavy. The tongue was clean and moist, though the breath was offensive. The respirations were normal and regular, and so was the action of the heart, but at times it seemed to labour in such a way as is not compatible with a state of ordinary health.

According to his own account he had enjoyed sound health and vigorous strength till about one year previous to my seeing him, when he commenced to fail. He then became gradually weaker and thinner, but still his appetite was as good as ever. After a time he was attacked most severely by fits of indigestion, which at first came on after meals, but subsequently preceded as well as succeeded them. He also began to vomit a watery fluid, and the pain now becoming

more frequent and severe, he consequently sought advice. The medical man whom he consulted concluded that some local mischief was the origin, and pronounced himself (after treating him for some time) as unable to give him any relief, and likewise hinted the growth of a tumour.

Other medical men whom he consulted varied in their opinions: some said it was spasmodic; others indigestion; the remainder that it was either a tumour or the water-brash.

When the poor man had almost come to the conclusion that his case was hopeless, he came to me: on narrowly questioning him I found that all his symptoms pointed conclusively to some gastric mischief, and that of an apparently grave nature.

I have already drawn the reader's attention to the patient's own account of his symptoms previous to my seeing him, so I shall now give *in extenso* a list of all, for they are truly deceptive and perplexing; and for the sake of conciseness I have divided them into three divisions, viz., *head, abdominal,* and *nervous*.

Head Symptoms.—Severe headache, accompanied by vertigo, especially after meals, and particularly so if he drank more than his usual quantity of tea; in fact, the slightest indiscretion in diet brought on these attacks.

Abdominal Symptoms.—Acute pain, occurring at intervals in the epigastric region, which soon became permanent; and frequently when the paroxysm seized him he was obliged to press his hand upon the pit of his stomach, which afforded him momentary relief (sometimes he was necessitated to bend forward). When the pain had subsided, a clear tasteless fluid would rise into his mouth; if the pain was more severe than ordinarily, the fluid would be of a frothy character: the amount increased, though at times it varied, and, according to his account, it entirely depended upon the severity of the pain. The bowels were irregular; sometimes they would be constipated for three or four days, and then would be followed by diarrhœa. The motions never were natural; they were sometimes, he said, "as hard as a rock," or else they were perfectly fluid, but they were invariably highly offensive. The water was high-coloured and strongly ammoniacal and loaded with lithates.

Nervous Symptoms.—At times he was greatly depressed in spirits, accompanied by a feeling of extreme lassitude, sometimes so prolonged and weakening as to oblige him to abstain from work altogether. During these fits he would be covered with a copious perspiration. The pulse was variable.

Thus I have given, as succinctly as possible, a description of this decidedly peculiar case—peculiar, I think, in every way, under whatever phase we look at it. We have our attention drawn to two principal symptoms, *i.e.*, the pain in the epigastrium, and the appearance of the clear fluid—one indicative of gastrodynia, and the other of pyrosis. The other symptoms are subsidiary, but all pointing apparently to some gastric disturbance, and its pernicious effect on the constitution of the patient.

For some time I was comparatively at a loss how to treat him, for, though I made a most careful examination of the case, I could not form any decided opinion, owing to the anomalous phenomena, for which I could not by any manner of means account; and as the diagnosis of others had been in fault, and no treatment had been of the least benefit, I was inclined at first, though somewhat reluctantly, to conclude that the symptoms arose from the growth of some tumour; but owing to the absence of those symptoms which we always detect when there is any morbid growth in the stomach, or in the region of this organ, I came to the conclusion that it was an aggravated case of gastrodynia, accompanied by pyrosis, and treated him accordingly, without, I need hardly say, the least benefit resulting.

Excessive vomiting soon complicated matters; and this was not relieved by those remedies which are usually administered in such cases. In two or three days' time the vomiting suddenly ceased of itself, and then the pain recommenced as severely as ever, and followed, as before, by the clear fluid. I now put him on a nourishing diet, and refrained from giving him any medicine at all; in other words, I left him to Nature, and she failed. I now began to regard the case as hopeless, and advised him to go to the seaside. He returned at about the end of a month in the same state as before.

I now noticed that the sclerotic coats of his eyes were excessively yellow, and on further examining him discerned marked symptoms of jaundice. His bowels had been moved only once a week or so, and his urine was high-coloured and turbid as usual. Upon this I changed my treatment altogether, and, notwithstanding his weak state of health, I at once gave him six grains of calomel, followed by one ounce of the solution of the sulphate of magnesia, and advised him at the same time to drink a little weak brandy-and-water during the day, in order to prevent the system from getting too low. As might be expected, the purging was severe and frequent; but three large worms were expelled, much to the patient's delight and surprise. I now gave him a powder consisting of four grains of calomel and six grains of santonin, and six more worms were expelled, and the stools were such as almost to defy description. Upon the expulsion of these last the patient experienced the most marked relief: the symptoms of pyrosis disappeared; there was no pain in the epigastrium; and the indigestion left him as rapidly. The system, of course, was very low, and for one day I had but faint hopes of his recovery. His appetite for some time was bad, but when it once returned it speedily improved, and I soon had the satisfaction of seeing my patient in a very different condition from that he was in when I first saw him.

This case is interesting in every way, as showing the simulative and deceptive symptoms of intestinal parasitical irritation, and the various phenomena to which the Ascaris lumbricoides give origin, and which, until the worms are expelled, leave us totally in the dark regarding the origin of the apparent diseases with which our patients seem to be attacked.

In this case many were entirely deceived, and the symptoms were ascribed by several as resulting from the growth of a tumour; by some, to gastrodynia; by others, to dyspepsia; and others, again (myself amongst them), concluded that it was a severe case of pyrosis complicated with gastrodynia; and there is no doubt but that many others would have been equally misled had they seen the case, however skilful they might have been in the diagnosis of disease. There can be no question but that the symptoms which arise from the Ascaris lumbricoides, especially as regards an adult, are what I term simulative and deceptive, and this case is remarkably significant of the fact.

In many infantile diseases we naturally suspect the presence of parasites, and even in these cases we are apt to be altogether wrong in our diagnosis; but adults we certainly do not expect to find the subjects of counterfeit diseases or the recipients of feigned maladies which owe their origin to intestinal parasitical irritation.

Once diagnosed, the case, which was previously interesting on account of the peculiarity of the symptoms, sinks into a common-place and nearly every-day occurrence: the mountain of difficulties which rose to such a height collapses, and becomes a hillock of very small dimensions; and so the greater interest we might have felt in the case, and annoyance at being unable to afford the patient any relief, depart immediately the cause comes to light.

It certainly would be highly interesting, and it would be conferring a boon to a great many, if some means could be devised whereby these parasites could be diagnosed without our waiting for some chance effort of nature to surprise us in our futile endeavours to treat the apparently unamenable symptoms of the patient, when, if we were only cognisant of the origin, much vain speculation, many erroneous diagnoses and false prognoses, would necessarily be avoided, and great bodily suffering would be more speedily and satisfactorily ameliorated.

Intestinal parasites, and the anomalous and deceptive symptoms to which they give rise, no doubt will seem to many as unimportant; but it appears to me to be just the reverse, for if they give rise to simulative diseases, and if we, because we are unable to diagnose the presence of the parasites, treat the patient for diseases which are fictitious, the matter is rather of a grave nature, and, as such, it requires more consideration on our part than we might otherwise think necessary.

One case, which I have mentioned in the *Medical Press and Circular*, completely deceived one of the most prominent physicians of the day. He diagnosed it as incipient phthisis, and pronounced it as incurable. His speculations on the origin of the attack were decidedly ingenious, and the course of it he mapped out with considerable ingenuity; but one day, on his rounds, the nurse (for it was a hospital case) informed him that the child had passed two round

worms, and was much better. Soon after, the child was discharged cured!

In the same article I drew the attention of the reader to another case equally interesting, which assumed the character of epilepsy, and which was pronounced to be such by many competent authorities. Instead of getting better, the patient (a girl) got decidedly worse under the treatment, for she was treated as an epileptic by all the medical men who saw her.

When she came to me I noticed certain symptoms indicative, not of epilepsy, but of intestinal irritation, and the idea occurred to me that it was owing to the presence of parasites. On administering some calomel and santonin, I soon found that my suspicions were correct, and under this treatment the girl soon got well.

The matter, therefore, as regards intestinal parasitical irritation, is certainly worth inquiring into; for who can tell how many are presumably attacked by diseases apparently of a dangerous nature when they are merely suffering from the irritation produced by the Ascaris lumbricoides? And the simulative case of pyrosis, of which this paper principally treats, is quite sufficient to show to what a low, debilitated condition the system may be brought by these parasites. That we should be practically unable to diagnose them, and be led into such errors certainly does not redound to our pathological skill or diagnostic ingenuity.

To diagnose these parasites from the development of certain mysterious phenomena is certainly no easy matter; for if they, in some individuals, are provocative of symptoms which are absent in others, we have nothing to guide us—in fact, we are, I may say, forced into error and inaccuracy by the symptoms of fictitious diseases; but I must confess that our credit for skilful pathological investigation is certainly at a discount till we find some method of discovering the presence of these parasites with the same ease and facility as we diagnose other intestinal abnormal conditions of the human frame.

It certainly is strange—and as yet I have been unable to account for it—that these worms should occasion so many different phases of simulative diseases; that in one individual they should give rise to a form of pyrosis, in another to that of epilepsy, and in another to that of phthisis. Whether it is owing to any latent and undeveloped disease originating these parasites, I have not as yet been able to determine: supposing it were so, it would not be difficult to comprehend it; but when we see that on the administration of an anthelmintic all these symptoms, whether of pyrosis, epilepsy, or phthisis, or of any other disease, disappear as if by magic, we are forced to confess that as yet we have not arrived at that perfection of pathology which some would have us imagine.

Thus we have three problems to solve, the solution of which would be a great advance in pathology, a triumph to medical science, and a boon to humanity, viz.—How can we diagnose the presence of the Ascaris lumbricoides in the intestines? Why should they give rise to simulative diseases? Why do they occasion so many different phenomena simulative of certain diseases, and be subjected to variations?

So fully persuaded am I regarding the importance of this subject, and the comparative obscurity with which it is at present enveloped, that I will, with my readers' leave, discuss it more fully and comprehensively in a future paper.

VITAL STATISTICS OF NEW YORK FOR 1876.—The Health Department of the city of New York furnish the following statistics:—Population of the city of New York, 1,083,371; total births (not including still-births), 25,729; marriages, 7629; still-births, 2192; deaths (not including still-births), 27,008; deaths of children under five years, 12,410—*i.e.*, deaths of children under five years 45·95 per cent., of persons five years and upwards 54·05 per cent.; death-rate per 1000 inhabitants, 24·93. Deaths from small-pox 2, from measles 272, scarlatina 1099, diphtheria 1007, croup 499, whooping-cough 382, typhus fever 4, typhoid fever 245, cerebro-spinal fever 97, phthisis 4466, pneumonia 2288, bronchitis 1184; from diarrhœa at all ages 2945, of children under five years 2598. *Meteorology:* Mean temperature, 58·52; mean pressure (barometric inches), 29,850; mean humidity (saturation 100), 74; number of miles travelled by the wind, 54·988; total rainfall (in inches), 48·66.—*New York Med. Record*, March 22.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

NERVE-STRETCHING IN TETANUS.

(Under the care of Mr. HUTCHINSON.)

[THE following notes are those of Mr. Wilson, the dresser of the patient.]

William W., labourer, aged twenty-two, was admitted on January 20, 1878. Patient was carrying a gun (an ordinary muzzle-loading fowling-piece) with the butt-end near his ear, and the muzzle by his leg. He thinks the trigger caught in his coat. The gun went off, the charge being lodged in his right leg. He walked about fifty yards after the accident.

On admission one hour after (12 noon) he was very pale and faint. The muscles of the calf of his right leg were in great part blown right away, the tendon of the plantaris standing out alone. There was a good deal of bleeding, so an Esmarch's tube was put round the thigh and he was sent into the ward. Mr. Tay then, after considerable difficulty, tied three vessels, including the posterior tibial, and recommended the man to have his leg amputated, but he declined. The wound was syringed with sp. vini rect. et aq. (1 to 6), and then wrapped up with strips of lint wet with the same. The anterior tibial was intact. The bones were not injured. In the evening he was rather sick, but there was no bleeding.

21st.—Still rather sick; wound dressed as before. He has a good deal of pain.

22nd.—The wound smells somewhat this morning. It was dressed, and well syringed with spirit and water. No bleeding. The retching has ceased. Had a restless night; the wound throbbing; tongue furred; pulse irregular.

23rd.—Is better this morning; had a good night. No pain in wound. A portion of skin at the edge of the wound appears as if it would slough.

24th.—Had a good night. Wound looks well. There is not much discharge, but a very offensive smell.

25th.—A part of the muscle at the lower end of the wound is sloughing; the wound is very offensive. The spirit dressing was stopped yesterday evening, and a poultice applied. The wound was well irrigated with Condy's fluid.

26th.—Slept very badly, waking up with starts; tongue very dirty; bowels acted this morning. A little chloride of lime solution was sprinkled on the poultice, and the very offensive smell was considerably lessened.

27th.—Had a good night; no pain.

28th.—He complains of severe throbbing pain near his ankle; the skin over it is œdematous, but there is no redness or fluctuation.

29th.—There is still the pain near his ankle, but no pain in the wound.

30th.—This morning at two o'clock there was a little bleeding; at 8.30 a.m. the bleeding returned rather freely, and a small vessel was tied at the upper part of the wound. This afternoon Mr. Tay made a counter-opening on the anterior part of the leg, let out some pus, and put in a drainage-tube.

31st.—Patient had a good night, and is a little better this morning. Evening: Patient told Mr. Hutchinson this afternoon that he had a sore throat, and said it began in the morning. Mr. Hutchinson looked, but found no pharyngitis. He had, however, some difficulty in opening the patient's mouth, and then noticed that he had a slight frown. Patient had a mug of tea, an egg, and some bread-and-butter for breakfast, and ate them well. He could not eat his dinner because his throat was so sore. It pained him in his head when he tried to swallow; he had no pain unless he began to eat. He says now (11 p.m.) that his jaws feel very stiff. At 8 p.m. his frown was well marked, but now it has gone off again. He says he cannot talk properly because he cannot open his mouth wide enough. His pulse is 120, soft, and slightly irregular. He is breathing quietly, 24. Temperature 103°; he does not feel hot; is not perspiring. Tongue slightly coated in centre; he is rather thirsty. His eyebrows are lifted up, and the angles of his mouth are

slightly drawn. He has a little stiffness at the back of his neck. He has a little tingling sensation in the third and fourth fingers of his right hand.

February 1.—Pulse 84, somewhat irregular. There is a distance of about half to three-quarters of an inch between the upper and lower jaws at the incisors. When moving his jaw he complains of a dull aching pain extending on each side from the articulation to the top of his head. The wound has a rather glassy appearance; granulations suppressed. Wound dressed with oiled lint. There is no pain in the wound, and it is not so offensive. The "frown" is more marked. Evening: The "risus" is now well marked. His jaws are very stiff, and he can only open them half an inch, but he takes plenty of fluid food. When he tries to eat "it pains him all in his head." His bowels have been open twice, and he passes urine freely. He has just been to sleep. He did not dream, but a few days ago he could not sleep for dreaming. Pulse 120, intermittent. Temperature in left axilla 104°, in right axilla 103·8°. The wound looks better; not so glassy. There is some pus, but not nearly so much as a day or two ago.

2nd.—His jaws are more rigid; he can scarcely open his mouth a quarter of an inch. He slept badly, his leg ached so much. 2.30 p.m.: He has just had one or two slight convulsive rigors affecting the body generally, tending especially to protrude the abdomen. The forehead is markedly wrinkled. There is an intermission in his pulse; it occurs about every twenty beats. Evening: He has been tolerably comfortable to-day. He has no pain about his head, face, or neck. Only his jaws are stiff. He says he cannot hold his head up; he is not able to lift it from the pillow by himself. As a rule, about three times a minute he has what is called in the preceding note a "convulsive rigor." He says a pain "jumps like" from his leg up to his knee, not to his back, and then he appears to take a deep inspiration, and holds his body forwards about two seconds; in all the rigor lasts about four seconds. His pulse is now 108, much fuller and steadier, and not intermittent. He has had two five-minim doses of tincture of digitalis in saline mixture. He has passed thirty-two ounces of urine to-day. The muscles at the back of his neck are hard and rigid like boards. His leg looks much better. He is restless, so one-third of a grain of hydrate of morphia was given hypodermically.

3rd.—10.30 a.m.: He had a good night; slept from two to six, and then slept again. He had not the "jumping" from his leg during the night, but it has returned this morning, and occurs about three times a minute. He perspired freely; his bowels have acted, and he has passed five ounces of urine. The muscles about his neck and abdomen are not nearly so rigid as last night. Pulse 120, not intermittent. 3 p.m.: Mr. Tay says his pulse is regular and fairly strong. Evening: He has had a fair day, though a little upset by visitors. The "jumps" occur about four times a minute, and last a little longer.

4th.—Has had a good night, and slept from three to eight. Before three he was perspiring very freely, and could not sleep. Pulse soft and quite regular. He takes fluid food well. The "jumps" occur about two a minute, and are not so strong and painful as yesterday. There is a free discharge of pus from the leg. The dressing was rather painful, so a hypodermic of one-third of a grain was given. Evening: The "jumps" are not so frequent. He complains of a pricking sensation about his back.

5th.—He slept about three hours during the night. The "jumps" are more severe, and there is some opisthotonos. Evening: His "rigors" are stronger. Half a grain of hypodermic.

6th.—The rigors are frequent and severe. He complains of great pain at his right ankle and foot, as if something was extending his leg powerfully. Evening: The rigors are as before, but hardly so painful. He slept one hour during the day.

7th.—He dozed a good deal, but did not sleep much, and had a restless night. The rigors occur as before. The leg looks well, and there is a good deal of pus. 4.30 p.m.: Does not complain of much pain except at the injured leg. 8.30 p.m.: The rigors or spasms now recur at exceedingly short intervals. He does not complain of any pain. He says through his clenched teeth that he is "getting on nicely." 9.15 p.m.: Mr. Hutchinson cut down upon the great sciatic nerve of the affected side. He made an incision, three to four inches long, parallel with the nerve, midway between the tuber ischii and the great trochanter. The lower edge of the gluteus maximus came into view, and also the upper part of the biceps muscle. The nerve was crossed by a small vein, and the sheath having been opened, the nerve was easily drawn forwards with the fingers. Mr. Hutchinson then stretched it both centrifugally and centripetally, and between his two hands. Considerable force was used. The wound was then closed with catgut sutures, and an antiseptic dressing applied. The spray was used during the operation, which lasted about five minutes. Ether was given while the patient was in bed, before he was summoned to the theatre. He took it very well, and was under about three-quarters of an hour altogether, as it was kept up until he was made quite comfortable for the night.

8th.—He slept for awhile, woke up about midnight, had two spasms, retched a little without bringing anything up, and then went to sleep until 8.30 a.m. 10.30 a.m.: In order the more easily to readjust the antiseptic dressing, ether was given, but after the first few inspirations of ether there were such strong spasms of the inspiratory muscles that breathing ceased. Artificial respiration restored the breathing, but when the ether was resumed the spasms again returned. The ether was then withdrawn. The man seemed rather exhausted; it was therefore decided to defer the dressings for awhile. One-third of a grain of morphia was given, and he had a little sleep. The spasms returned during the afternoon, affecting the body and left leg chiefly; the right leg was not so much affected. He said he had no pain in his leg, but "felt so tight round his body." He went on quietly, without much change, until 6 p.m., when the spasms began again to affect the respiratory muscles. He struggled on, but was quite conscious when he died at 6.30 p.m.

Temperature, etc.—January 20: Temp., morning 98°, evening 101·4°; pulse 104; resp. 18. 21st: Temp. 103·4°, 102°; pulse 100; resp. 24. 22nd: Temp. 101°, 101·4°; pulse 104; resp. 24. 23rd: Temp. 100·6°, 99·2°; pulse 94; resp. 20. 24th: Temp. 101·2°, 100°; pulse, morning 100, evening 96; resp. 24. 25th: Temp. 100·6°, 102·2°; pulse 98, 108; resp., morning 20, evening 25. 26th: Temp. 100·6°, 101·6°; pulse 102, 96; resp. 24, 20. 27th: Temp. 100°, 101·6°; pulse 96, 101; resp. 20, 24. 28th: Temp. 100·8°; 101·6°; pulse 92, 120; resp. 20, 20. 29th: Temp. 100·2, 103°; pulse 108, 112; resp. 24, 24. 30th: Temp. 102·2°, 101·4°; pulse 108, 120; resp. 20, 24. 31st: Temp. 102°, 103°; pulse 84, 96; resp. 24, 24; sore throat. February 1: Temp. 99·4°, 103·6°; pulse 88, 105; resp. 25, 24; "risus" trismus. 2nd: Temp. 100°, 99·8°; pulse 108, 120; resp. 25, 24; digitalis given. 3rd: Temp. 99·2°, 99°; pulse 108, 120; resp. 24, 26. 4th: Temp. 99·2°, 101°; pulse 112, 120; resp. 24, 24; digitalis not given. 5th: Temp. 102·2°, 101·4°; pulse 120, 120; resp. 24, 24; digitalis resumed. 6th: Temp. 100°, 101°; pulse 120, 120; resp. 24, 26. 7th: Temp. 99·8°, 102·6°; pulse 120, 132; resp. 26, 28; nerve stretched. 8th: Temp. 100°, 102·4°; pulse 128, 144; resp. 28, 30; death. Temperature in rectum, three hours after death, 106°.

Urine.—February 2: Thirty-two ounces, specific gravity 1022, acid, no albumen. 3rd: Twenty-seven ounces. 4th: Forty ounces. 5th: Fifty-five ounces. 6th: Forty ounces. 7th: Specific gravity 1025, acid, no albumen, lithates, 1 per cent. urea.

Post-mortem.—Several nerves ended in masses of granulations, but none were red or inflamed, and no special inflammation of any nerve was found, although carefully looked for by Mr. Tay. A number of shot were heaped together between the tendons of the flexor longus pollicis and flexor longus digitorum, and there was a little pus here, about an inch and a half above the ankle. Shot were also found in the remains of the muscles of the calf. The incision—where the great sciatic was cut down upon—was united by the first intention. There were no apparent changes in the nerve here. On pulling the great sciatic the nerves at the calf were not disturbed; but after the spinal cord was exposed it could be seen to move distinctly when the nerve was pulled. The cord was rather soft. The brain was very pale and bloodless. It was examined before the thorax was opened. The lungs were œdematous. The left ventricle was slightly contracted; the right not at all. The kidneys were congested; liver and spleen healthy.

FRACTURED RIBS — PNEUMOTHORAX — PARACENTESIS OF CHEST—RECOVERY.

(Under the care of Mr. HUTCHINSON.)

Wm. L., aged twelve, was admitted February 17, 1877.

Patient was crossing the road, when a horse knocked him down, kicking him on the left thigh; the wheel of the vehicle passed over the lower part of his chest, fracturing two or three ribs on both sides low down and in a line with the nipple. He was in much pain on admission, but besides the fractures there was nothing to point to injury of the viscera of abdomen or chest.

February 19.—There is great dyspnœa; working of alæ nasi; anxious countenance. He lies on his right side, and he says he does so because it gives him greater ease. The right side of chest presents as low down as border of ribs a marked tympanitic percussion sound—box-like. Liver dulness extends about two inches below the margin of ribs. Heart's apex-beat is diffused, its chief point of impulse being between the fourth and fifth ribs, and in nipple line on right side of chest. Vocal fremitus is absent. At upper part the breath-sounds are nearly absent, and lower down below nipple markedly hollow and vocal resonance altered. The left side of chest presents the signs of compensatory emphysema. He has had no hæmoptysis nor hæmatemesis. The above signs show that the lung has been wounded, and the air has escaped into the right pleural cavity; the absence of hæmoptysis is unusual. On February 20, at 12.30 a.m., breathing was 73 per minute. It was considered advisable to liberate some of the air in the pleural cavity; this was done by passing a fine trocar and canula through the fifth or sixth intercostal space and in axillary line, when a large quantity of air and a little blood escaped. After this, respirations were 62, but there was no marked change in physical signs. 3.30 a.m.: Respirations 61.

20th.—Breath-sounds a little more distinct on right side; respirations 64. Dextro-decubitus not so marked, and patient himself appears a little relieved.

21st.—Patient is much better; his face has lost the anxious expression; his breathing is much easier (40 per minute); he lies only slightly on his right side. There are, with the exception of breath-sounds being a little more distinct, the same auscultatory signs.

23rd.—Right side of chest still presents a hyper-resonant note; breath-sounds are more clear; at lower part of right lung a superficial friction-sound is heard; vocal fremitus has returned in a small degree on right side. Respiration is chiefly diaphragmatic, but is much improved; no dilating alæ nasi; no anxious countenance. Breath-sounds heard plainly at right posterior base. Left side of chest presents signs of emphysema.

24th.—Has passed a very good night, and looks and says he is much better.

25th.—Still improving. Is able to lie in any position. Has a slight cough, but no expectoration.

March 1.—Patient has been making satisfactory improvement since the last report. There has been no return of the dyspnœa; his breathing now is 24 per minute; he can lie equally well on back or either side; complains of no pain except in dorsal spines, but this only slightly. Behind at right supra-spinous fossa percussion is a little hyper-resonant, low down it becomes flat. At the base fremitus is almost absent. Breath-sounds become feebler as the base is reached, and here there is absent vocal resonance. At a point about an inch below the angle of right scapula the resonance is ægophonic; higher up it is normal. On the left side the breath-sounds are exaggerated. In front, on the right side, at the apex the percussion is hyper-resonant; lower down it is flatter. The breath-sounds are louder, the vocal resonance more appreciable at the apex; lower down the former becomes feebler, the latter absent. The fremitus in these particulars resembles the vocal resonance. At the place spoken of in the note made on February 23 there is still heard at the end of inspiration a superficial rub. Liver dulness is still an inch below ribs; heart's apex-beat is in normal position. His temperature is normal. He has had no rigor or other symptom to point to any acute change.

After the last note the progress to recovery was uninterrupted. The boy left the hospital quite well.

Enormous Discharge of Fluid by Tapping.—A correspondent of the *Boston Med. Jour.* (March 27) refers to a case in which from ten to eleven gallons of liquid were removed from the abdomen at a single tapping, the patient bearing the operation well, feeling greatly relieved, and sleeping soundly afterwards.

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Medical Times and Gazette.

SATURDAY, JUNE 7, 1879.

THE PROSPECTS OF MEDICAL LEGISLATION.

In continued obedience to the classical admonition *festina lente* can secure success for attempts at legislation; and if slowness of progress may as a rule be taken as a sign of the sureness thereof, then ought the successful progress of medical reform to be very sure indeed, notwithstanding the darkness, or perhaps rather blankness, of its prospects at present. The Medical Act Amendment Bill of the present Government—we will not go farther back in the history of medical reform—is in its second year of Parliamentary age; two-thirds of the session are past and gone; and, as the precious weeks of legislative activity have wasted away, it has become more and more difficult to get the House of Commons to settle down steadily to work at legislation of any kind; but the Government Medical Bill and the three other Medical Bills are still on the threshold of the Lower House. The Bill of the Government has indeed been passed by the upper House, as it was last year; but neither it nor any one of the other Bills has as yet been read a second time in the Lower House. In the hope of conciliating the opponents of their Bill, Government offered to move for the appointment of a Select Committee of the House of Commons to consider and report upon the question of reforming the constitution of the General Medical Council, and promised not to attempt to proceed further with the Bill till that Committee had reported. But the result was that notices were promptly given that the appointment would be opposed unless the other Bills, and indeed the whole subject of medical reform, were also referred to the Committee. After some further delay Government again yielded; but when Parliament adjourned for the Whitsuntide holidays the proposed Committee had not been appointed. Now, one step more in the slow progress of the affair has been made. The nomination of the Select Committee is, as is stated elsewhere in our columns, among the notices of motion for Monday, June 9. We cannot say that the proposed Committee is a strong one. It would be difficult to find among

the members of the House of Commons more than a very few men who have any real knowledge about the Medical Council, medical education, or medical examination—*i.e.* about any of the subjects to be referred to the Committee in question. Four of the medical men in the House—Sir Trevor Lawrence, Mr. Mitchell Henry, Dr. Lush, and Dr. Cameron—are of course among those nominated; and Messrs. Errington, Goldney, and Arthur Mills must fairly be supposed to have especially studied the subjects to be inquired into, as their names appear on the backs of some of the Bills referred to the Committee. Lord George Hamilton is an official member, and, moreover, has had special opportunities of learning not a little of the various opinions held on the subject of medical reform. Mr. Forster, the Hon. David Plunket, and Dr. Lyon Playfair are able men, and the last mentioned of the three possesses special knowledge of the medical profession and its needs. What reasons led to the selection of the remaining four members we cannot pretend to guess, though it may be suggested that Mr. Serjeant Simon has been chosen to represent the quack interest. Politics have, as is well known, nothing to do with medical interests, and Government wished no doubt to show that they recognise this by nominating eight Conservatives and seven Liberals on the Committee, and putting a Liberal in the chair; so that political interests are nullified. But it seems very possible that on one point objection will be made to the constitution of the Committee: what will the Scotch say to it? We can hardly imagine that they will look upon Dr. Cameron as an acceptable representative of their opinions and interests; and though Dr. Lyon Playfair is a host in himself, still one member in a committee of fifteen seems but a very scant recognition of the large and important medical schools of Scotland. Of the matters to be considered by the Committee, the constitution of the General Medical Council will be the chief one. The Government Bill does not touch it at all. Mr. Arthur Mills' Bill, which is the Bill of the British Medical Association, leaves all the universities and corporations to be represented as at present, excepting in this small point, that it proposes to link the University of St. Andrews, instead of that of Aberdeen, with the University of Edinburgh, and transfers Aberdeen to the embrace of Glasgow; it leaves the Crown nominees unmeddled with; and it proposes to add to the Council six direct representatives of the registered practitioners of the United Kingdom. Dr. Lush's Bill provides a Council of nineteen members only; it reduces the Crown nominees to three, allows only one university representative for each division of the kingdom, excepting England, the University of London being distinguished by having a whole representative. It joins together for representative purposes the King and Queen's College of Physicians in Ireland and the Apothecaries' Society of Ireland; and it provides four direct representatives of the profession. Granting the principle of direct representation at all, Dr. Lush's plan of reforming the Council seems much preferable to that of Mr. Arthur Mills' Bill, which would simply be adding to the expense and talking power of the Council. This Bill, as does the amended Government Bill, lays on the Medical Council the responsibility of framing examination rules; while Dr. Lush's measure leaves this duty in the hands of the medical authorities, subject to the approval of the Council. All the three Bills provide for the compulsory establishment of a Conjoint Examining Board in each division of the kingdom; and this part of the proposed medical reform will be, we suppose, the other great subject to be inquired into. It is difficult to believe that any important change can be made in the conjoint examination system now, but we may be sure that the system will be stoutly and pertinaciously resisted by Scotland; and a steady, well-organised opposition in committee, and in the House, could very easily destroy any remaining chance of a Medical Act Amendment Bill being passed this year, even should Government show more earnestness and decision in the matter than they have yet shown.

We may return to these subjects, and to the consideration of the Medical Bills, should the prospect of early medical legislation improve; but at present it seems so hopeless that any serious discussion in these pages of the changes proposed to be made appears rather a waste of time and space.

We have not spoken as yet of Mr. Errington's Medical Appointments Qualifications Bill, because we cannot suppose that it has, or deserves to have, any chance of being gravely taken into consideration. It provides that a double qualification in medicine and in surgery shall be required for registration; but it leaves all existing examinations as they are at present, and it would add to them another examination to be passed by candidates for all Civil Service appointments. Such a proposal is really not worthy of serious consideration. It is generally admitted that there are already too many examinations. If they are inefficient to fit men for practice, let them be made efficient; or, if that cannot be effected, let them be done away with, and new and efficient examining boards appointed. But a proposal to establish an additional examining board, excepting in the sense we have before hinted at, ought not to be entertained for a moment. The measure is simply an impossible one.

THE ABORTION CASE.

One of those episodes which from time to time crop up to show the hollowness and superficiality of our boasted civilisation has just had its *dénouement* at the Central Criminal Court. The case was practically that of a surgeon who had succeeded in procuring abortion fatally for his patient, who died within a week. Under the circumstances, he was arraigned for murder, inasmuch as death followed upon, and was the consequence, directly or indirectly, of an unlawful act.

The circumstances were, as briefly as possible, as follows: Mary Ann Robinson, a young woman aged twenty-five, had become pregnant by, it was said, a fellow-servant. Anxious to conceal her shame, she left her situation, and went to live with a brother at Queen's-park, Chelsea. Her relations were not aware of her condition, and she naturally scrupulously avoided saying anything on the subject; but that she had communicated with the father of the child seems clear from a letter written by him, produced during the preliminary inquiry, but, strangely enough, not referred to on the trial. This letter had reference to the procuring of money. In some way or other money was obtained by the unfortunate woman, but not in sufficient quantity to satisfy the demands made, for she applied to an old fellow-servant, and got from her the loan of some more, bringing the sum in her possession, as was believed, up to £8. In the beginning of February she told her relations she was going away for a day or two on a visit, and on February 8, being Saturday, she left her brother's house with a small bag containing some necessary articles of dress, and was seen by them no more alive. This sudden disappearance was to them the more inexplicable as she was to have acted as bridesmaid at her brother's wedding, which was to take place on the 24th. The next point in the history is that on this same February 8, Mrs. Boyce, a laundress, living in a wretched hovel in Crescent-road, Chelsea, received on that evening a young woman as a lodger. This laundress had said, a day or two before, that she was going to have a young woman for a week as a lodger, and that this young woman was to undergo an operation by Dr. Addison—"Dr.

Addison," she said, "had given her the chance." At Mrs. Boyce's this young woman was always called "Annie," but nothing else, and she passed as Mrs. Boyce's cousin. She was seen by Dr. Addison on Sunday. On Sunday evening the deceased was in great pain, and some time on Sunday or Monday seems to have given birth to a child. A witness who was living in the house was upstairs, and saw in a basin, after Dr. Addison had been there, an instrument, which she afterwards recognised as an elastic catheter or something of that kind. During the whole of the week the girl continued to get worse; she suffered great pain, and she died on the Monday following. Almost immediately after the death Mrs. Boyce went to a neighbouring undertaker, desiring him to remove the body as soon as possible, as the knowledge that a death had occurred in her house might injure her business as laundress. This was done, and Mrs. Boyce next desired that the funeral should take place as soon as possible. Accordingly, she went and registered the death as that of Mary Chapman—Chapman being her own maiden name,—and the certificate bore on it the signature of Dr. Addison, and was to the effect that deceased died from obstruction of the bowels and peritonitis. The young woman was buried. Though Mrs. Boyce was in very poor circumstances, she paid £4 15s. for the funeral.

At an earlier stage of the investigation it was said that information had been given to the police that a trade in abortion had been going on in Chelsea or Brompton. This may have been true or not—at all events, the police were not long in obtaining some clue, aided undoubtedly by the prisoner's own folly in conversation with certain young gentlemen, to whom he practically confessed what had taken place, though they at the time pooh-poohed his story. In the result, the body was exhumed, and recognised as that of Mary Ann Robinson, though buried as Mary Chapman, and a post-mortem examination was made. The signs of a recent delivery were found, as also extensive peritonitis, but no local injury to the uterus or parts about. On March 15, Dr. Addison and Mrs. Boyce were arrested and brought before the magistrate, who, after repeated remands (during one of which Addison endeavoured to strangle himself), finally sent them for trial. The trial took place before Mr. Justice Grove, when the facts above sketched were laid before the jury, who, as the Judge himself expressed it, took a most merciful view of the case, and found both prisoners guilty of manslaughter. Addison was sentenced to seven years' penal servitude, and Mrs. Boyce to two years' imprisonment with hard labour. We can only echo what the Judge said, and apply it to both himself and the jury. With another judge and another jury the man would have had every chance of being hanged; and he may be very thankful for having got so well off.

Apart from the somewhat dramatic history here unfolded, we see in it some very uncomfortable causes for reflection. Here we have a young, but not inexperienced servant-girl, who, on being able to raise £8, was able to go at once to a regularly qualified medical man and treat with him for procuring abortion. It is plain that there must have been some kind of "fama" or reputation attaching to Dr. Addison to encourage anyone to act thus, and it was put in evidence by the police that they had heard reports of other cases of a similar kind, but without the fatal result. We fear that the evidence points to the fact that Dr. Addison was carrying on a trade of the sort, and we equally fear that he is not alone in it. In Addison's case such a conclusion to a career begun under much more hopeful auspices is peculiarly saddening. We believe there are papers in the old *Medico-Chirurgical Review* from his pen, on the chemistry of the urine of the insane, and we know that he was a correspondent of the late Dr. Parkes, of Netley. At one time he had a large shop, and apparently a lucrative business, in Bishopsgate-street. How he came to settle in the wretched little hole he latterly occupied in Marlborough-road—a thoroughfare chiefly characterised by costermongers' barrows—we know not; but we fear that he soon procured for himself an evil reputation.

Nor is it quite pleasing to contemplate this young woman going off from her friends for, as she said, a week's visit, knowing that she was deliberately about to sacrifice her offspring. Child-murder we can more easily understand. The agony of shame and pain has with many a jury covered such a sin, but this calm deliberation—we had almost said jauntiness—is another thing. No doubt the poor young woman was anxious to keep a clear character, but the father of her child had not deserted her, and there was another course open to them. It would be well if we could stop here, but unfortunately it is impossible. The crime thus rudely carried out for a five-pound note is not unknown in higher circles amongst those who should have no such feeling as shame, for it occurs, there is only too good reason to fear, largely among the married women of the higher classes. Especially is this the case in America, where establishments are or were almost openly kept for the purpose of enabling pleasure-loving married women to get rid of unwelcome burdens. And we believe there was nothing which did so much harm to the female medical movement abroad than the notion that the skill lawfully acquired would be thus unlawfully exercised. Where food is scarce and life cheap, infant life is not held of great account. Savage nations, to our horror, indulge in unlimited infanticide. With hyper-civilisation of a false kind, more scientific, but not less deadly, means are taken to attain the same end—not without risk, however, for, as the poor girl Robinson's case shows, abortion, even in skilled hands, is not to be trifled with. This was known even in the time of the Romans. Thus, Ovid, *Amorum*, lib. ii., eleg. xiii., alludes to the danger of such proceedings when he says, "Dum labefactat onus gravidi temeraria ventris in dubio vitæ lassa Corinna jacet." In this respect the case will convey a lesson both to those willing to undergo and those willing to undertake such operations.

Still another aspect of the case, which is quite as unwelcome a subject for contemplation. A young woman leaves her home on the pretence of visiting some friend unknown to her relations. She goes to an utter stranger, where her name is, perhaps, not known. She is taken ill, from natural or unnatural causes, and dies. To conceal their own share in the matter the parties concerned bury her under a false name; and there, except for certain peculiar circumstances, would have been an end of the matter. Sudden disappearances in classes of society above that of servant-girls are not unknown. How many of them may be due to similar causes it is not easy to say.

One of the curious things connected with the case was the disappearance of the body of the newly-born infant, or rather fœtus. The disposal of the remains was not once alluded to in the trial, yet, though not really bearing on the case, a disclosure on the subject might have had a beneficial effect on the public. The ease with which the body of a new-born infant or fœtus can be got rid of is a matter of some public importance.

From a juridical point of view the case is of no great value. The medical evidence only indicated that the young woman had died of peritonitis, and that there had been a miscarriage, but how the one was connected with the other there was no proof to show. As regards the catheter—perhaps the most telling part—the girl was taken to Mr. Bond's house, and there picked out something like what she saw in the girl's bedroom. Evidence like this is not worth much.

EXPERIMENTS ON DISINFECTION.

Two sets of important researches on disinfection have been lately going on at Berlin. In both, the test of the efficacy of the particular disinfectant used has been the effect produced by it either in destroying bacteria and vibriones in putrid fluids exposed to its action, or in preventing their development in a form of "Pasteur's fluid," in which the objects that had undergone disinfection in various degrees were immersed.

The first experiments, those of Dr. Mehlhausen, Director of the Charité Hospital, refer chiefly to the disinfection of rooms in which scarlet fever and other infectious cases have been. The result arrived at is that the most energetic and the cheapest disinfectant is sulphurous acid. Chlorine gas has the disadvantage of destroying clothes and furniture exposed to it, while it is less easy to manipulate, and four or five times as expensive as sulphurous acid. Twenty grammes of sulphur per cubic metre of space destroy, when burnt in a closed room, all bacterial life in sixteen hours. Besides blocking up the doors and windows, Mehlhausen advises that the room shall be previously warmed, if the weather is cold, in order to prevent the gas finding its way into the neighbouring apartments. It is also advisable to damp the floor before lighting the sulphur, so as to profit by the great solubility of sulphurous acid in water. Eight hours is long enough to keep the room shut up after the sulphur begins to burn, and at the end of that time any clothes or bedding in it will be effectually disinfected. Mere free exposure of an infected room to the air by allowing the windows to stay open several days is not enough to disinfect it. This has been practically proved at the Charité Hospital after scarlet fever and measles in several instances.

The second series of experiments was made by Dr. Wernich of Breslau, in the chemical laboratory of the Berlin Pathological Institute (*Centralblatt Med. Wiss.*, No. 13, 1877), upon the disinfecting power of sulphurous acid and of dry heat. The method adopted consisted in preparing an "infecting material" by steeping woollen threads, pieces of linen-rag, and cotton-wool, previously proved to be free from atmospheric organisms, in putrid solutions of fæces or meat, and gently drying them. These substances were then tested for their capability of producing bacteria by means of the modified Pasteur's fluid above mentioned, which consisted of distilled water 100 parts, cane-sugar 10 parts, ammonium tartrate 0·5 part, and 0·1 part potassium phosphate. This solution was freshly prepared before each set of experiments, filtered, boiled for half an hour, and immediately poured into the test-glasses and preserved with the usual precautions. To test the effect of disinfection, the wool or wadding, after exposure for a definite time to a definite degree of heat in an oven, or to a measurable volume of sulphurous acid in a bell-glass, was immediately transferred to the Pasteur's fluid, and the efficacy of the disinfectant was estimated by the rapidity of development of bacteria if such appeared, or by their complete absence, as indicated by the fluid remaining perfectly cloudless. It was thus found that 3·3 per cent. of sulphurous acid by volume failed even after many hours to prevent the development of bacteria, but that if the amount of gas reached from 4·0 to 7·15 per cent. by volume of the contents of the bell-jar, and the process had gone on for at least six hours, no bacteria at all developed. On the other hand, while exposure to a temperature of 110° to 118° Cent. even for twenty-four hours failed to destroy the bacterial germs, five minutes' exposure to one of 125° to 150° Cent. invariably succeeded, and the test fluid remained clear even for eleven days or longer. Dr. Wernich specially reminds us that his results must not be taken as applicable to all forms of bacteria, some of which probably require severer measures for their complete destruction. He also points out that it is easier to disinfect wool than linen, and that cotton wadding is the most difficult of all to free from infectious germs.

THE WEEK.

TOPICS OF THE DAY.

At the last week's meeting of the Metropolitan Board of Works a report was presented from the Works and General Purposes Committee on the subject of certain disallowances made by the Government auditor in examining the accounts of the Board. The Committee were of opinion that under all the circumstances of the case it would be the proper course for the Board to make application to Parliament in the present session for a Bill of indemnity for the expense incurred by the Board in reference to the two Bills for the supply of water to the metropolis, alluded to in the statement of the auditor. Mr. Rogers, in moving the adoption of the report, said the amount of expenditure was not the point at issue, but under the circumstances the Committee thought it better to go to the highest power, exhibit to Parliament the facts of the case, and show that the Board had acted honestly and sincerely, and with a true desire to improve the supply of water. Mr. Taylor, in seconding the motion, remarked that the management of the whole water-supply of London was a gigantic question, and he hoped that the Board would not meddle with such matters for the future. Mr. Leslie said the proposal was in direct opposition to the opinion of three Queen's counsel, who considered that the Board ought first to proceed to the Court of Queen's Bench before going to Parliament for a Bill of indemnity; he therefore opposed the motion. In the end, however, the report was adopted by thirty-five to two. The action of the public auditor in this matter has placed the Board of Works in a very awkward position, and it remains to be seen what view Parliament will take of such a large expenditure of public money without any definite result having been obtained. The question of taking some steps to mitigate the evils from which some of the metropolitan parishes have suffered from floodings occasioned by recent heavy rainfalls, was ordered to be referred to the Works and General Purposes Committee for consideration.

The Rivers Conservancy Bill has been sent down from the Lords to the Commons in an amended form, though differing but slightly from its provisions as originally introduced. It had been hoped that advantage would have been taken to insert clauses in the Bill enabling conservancy boards to prevent pollutions as well as to deal with floods, but the measure is still confined to the latter purposes. Subject to the approval, first of the Local Government Board, and afterwards of Parliament, conservancy boards may be established, to whom ample powers are delegated for the purpose of dealing with floods within the river basin or basins comprised within their respective districts. It seems doubtful, however, whether these powers are intended to cover the execution of works for the storage of water, which is as important a question as that of dealing with floods; and it would have been as well if specific powers had been given to conservancy boards to adopt measures for the storage of the surplus waters of one season for use during any subsequent period of drought.

At the annual court of the Governors of the Brompton Hospital for Consumption, the report presented showed that the receipts in 1878 were far less than in the previous year, both years comparing unfavourably with the year 1876. The diminution under the heads of annual subscriptions and donations was, to some extent, accounted for by the long prevailing depression in trade; but the Committee stated that they had

reason to believe that a great deal of support had been withheld under an erroneous impression that the Hospital no longer needed the same amount of assistance as heretofore. So far, however, from this being the case, the demand for extended accommodation has been steadily growing; so that it has been found necessary to spend the large legacy bequeathed to the charity in increasing the capacity of the Hospital, which will, therefore, require largely increased support. The admissions to the Hospital during the past year have been fewer than during the preceding period, consequent upon the closing of the temporary south wing preparatory to the demolition of the premises to make way for the new building. Still, 1090 persons have been treated as in-patients, and 11,517 new out-patient cases have received medical advice and medicines during the year 1878.

A large meeting of the governors of the Royal Medical Benevolent College was last week held at the offices in Soho-square, to consider the present system of electing the inmates of the College, and a decisive vote was taken adverse to the principle of vote-canvassing in connexion with this charity. The motion for altering the system of election, and for substituting a system of selection, was moved by Dr. Hare, who pointed out that under the present system a large amount of money was expended by the poor candidates in the endeavour to obtain the benefits of the charity, and that often those were elected whose friends could very well support them. Mr. Ernest Hart seconded the motion, and contended that the charity would be benefited by the change, which was necessary alike for the advantage of the subscribers, who under the voting system had to receive the solicitations for votes, and for the candidates, who expend money and time in obtaining support. After a lengthy discussion the motion was carried by a large majority.

Her Majesty's troopship *Tamar* has been placed in a gravely vexatious position through the action of the Portuguese quarantine authorities. The vessel recently arrived at St. Vincent with military invalids from the Cape of Good Hope, and widows and children of soldiers killed in the Zulu war. She went into port to coal, and reported some cases of chicken-pox on board; the port authorities accordingly ordered the vessel into quarantine for twenty-eight days. The captain protested that chicken-pox was not a disease requiring this protracted quarantine; but the Portuguese officials refused to listen to his protestations, and he has been compelled to telegraph home for the intervention of the Government, as the delay occasioned is a matter of serious consideration.

The annual meeting of the Sanitary Institute of Great Britain was held last week, at the rooms of the Society of Arts, under the presidency of Dr. B. W. Richardson. The report showed that four examinations have been held during the past year, under the direction of the Council, for local surveyors and inspectors of nuisances. Twenty-six candidates presented themselves, twelve to qualify for the former, and fourteen for the latter appointment. Of these, five obtained certificates as surveyors, and thirteen as inspectors of nuisances; the remainder failed to satisfy the examiners. Sixteen candidates have expressed their intention to present themselves at the next examination, which is appointed to take place during the present month. In the course of the proceedings a discussion arose on a resolution put forward by Sir Antonio Brady to alter the by-laws so as to make women admissible as associates, members, and fellows of the Institute; but this was eventually rejected on a show of hands. On the motion of Dr. Lory Marsh, supported by Dr. Russell, of Edinburgh, and Captain Douglas Galton, a resolution was carried, suggesting that the Council should proceed, with as little delay as possible, to carry out that part of the basis of constitution which related to the establishment of a school and classes for the technical teaching of sanitary science.

At an inquest recently held at Wells, it was stated that erysipelas of a very grave character has been epidemic in Bristol County Lunatic Asylum for some time. There have been thirty-two cases since January last, and of these four have proved fatal. Assiduous efforts to trace its origin have resulted in the discovery that, owing to rats having made their way through a lead pipe connected with the sewers, there has been a continuous escape of sewer-gas into the establishment.

Yet another appeal case has to be recorded in which the Supreme Court has seen fit to reverse the decision of the court below. The plaintiff, Mr. Swanston, an owner of land at Twickenham, obtained an injunction against the Twickenham Local Board to restrain them from constructing side-entrances to their sewers on any part of his land. He showed that his tenants complained that intolerable stench and sickness were caused by the present opening or "man-hole," and that cases of fever had broken out in consequence thereof, and the defendants had given notice that they intended to erect other similar structures on his land. Mr. Justice Fry had decided that under the clauses of the Act giving the defendants power to make sewers there was no power to construct these side-entrances or man-holes, and if they were necessary then the defendants must purchase the land under their compulsory powers. The Supreme Court held that the man-holes were part of a sewer within the meaning of the Act, and that the plaintiff was not entitled to require the defendants to purchase the land, but was only entitled to compensation for such injury (if any) as he had sustained. If, as was previously contended, the effect of these man-holes is prejudicial to the public health, the present decision can only be looked upon as disastrous from a sanitary point of view.

The fourth annual meeting of the Society for the Total Abolition and Utter Suppression of Vivisection was held last week at Willis's Rooms. The report was warmly discussed, and was only adopted in amended form. The chairman, Sir P. Colquhoun, earnestly deprecated all sensational statements, and advised the members of the Society to appeal only to good sense, logic, and justice. If this gentleman really meant what he said, it follows as a matter of course that the "total abolition and utter suppression" will have to be applied to the Society, and not to vivisection. We have received several reports of an anti-vivisection meeting recently held at Peterborough, convened by Mr. Cooke, lecturer of the London Anti-Vivisection Society. The meeting was, to quote the words of a local journal, "a triumph of common sense over plausible inconsistency," and an amendment proposed by Dr. T. J. Walker, to the effect "That vivisection as at present restricted by law is a justifiable means of advancing science in the interests of humanity and the animal race," was carried by an overwhelming majority.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

THE annual general meeting of the Royal Medical Benevolent College, which was held at the office of the College on Thursday last week, will be a very memorable, and we trust a very satisfactorily memorable one in the annals of the institution. The meeting was a most unusually large one, great interest in the proceedings having been excited by the well advertised fact that the following resolution would be proposed with the view of abolishing the system of canvassing by candidates for pensionerships and foundation scholarships:—"That the by-laws be altered to the following effect—1. That a committee of examination be

appointed by the Council, whose duty it shall be in the month of April of each year (*a*) to carefully investigate the relative claims of those who have been admitted by the Council as candidates, severally, for pensionerships and foundation scholarships; (*b*) to select of each class a number of names exactly equal to the number of vacancies in each class; the names selected being those of the respective candidates who in the opinion of the Committee best deserve election; (*c*) to send to the Council the names of the candidates so selected. 2. That the Council with each balloting paper made out as at present (and of course leaving to every governor the absolute right of voting for any candidate as he or she may please), do enclose a slip of paper on which shall be printed the following words, or words to the following effect:—'The Committee of Examination recommend the following cases as being in their opinion the most urgent;' after which shall be printed the names of the candidates for pensionerships and foundation scholarships selected as above by the Committee of Examination." This resolution had been sent to the Council, supported by the written adhesion of 2700 of the governors of the charity. It had been very carefully considered by the Council, as had the subject of it been on several previous occasions. But the Council, after the most careful consideration, and while fully recognising all the evils of the canvassing system, felt unable, in the interests of the charity, to recommend to the governors the adoption of the resolution. Nevertheless, at, as we have said, a very large meeting, the resolution was carried by an overwhelming majority, and we believe the Council have already taken steps to inquire into the best way of giving effect to it. There can be no doubt that the Council will most loyally and frankly obey the behests of the governors; and should the result have the effect of doing away with the canvassing system, without at the same time injuring the prosperity of the institution, the Council will be at least as heartily glad as any supporter of the resolution. We cannot ourselves believe that the changes proposed will succeed in abolishing canvassing—they appear too weak for that; but they may go some way towards that desirable end. The change is an experiment; and all the governors of the College who supported it, and all who object to the canvassing system as in connexion with any benevolent institution, ought to be especially earnest in taking care that the welfare of the Medical Benevolent College does not suffer while the experiment is being made.

THE HEALTH OF ST. MARYLEBONE PARISH.

The death-rate of the parish of St. Marylebone during the month of April last is reported by the Medical Officer of Health, Dr. John Whitmore, to have been considerably above the average. The number of deaths recorded during the month, viz., 376, was equal to a rate of 30·64 per 1000 of the population, being 1·76 per 1000 less than in the previous month, but 6·07 in excess of the corresponding month of last year. This excess of mortality is entirely caused by deaths from diseases of the respiratory organs, and from some others which are rendered more fatal by cold weather. On the other hand, deaths from zymotic diseases continue to be but few in number—only three from measles, four from scarlet fever, and one from typhoid having been registered during the month of April; whilst small-pox was not fatal in a single instance, and Dr. Whitmore did not receive information of a single patient suffering from the disease being removed to either of the Asylum Hospitals. This immunity from zymotic diseases cannot, however, Dr. Whitmore thinks, be expected to continue with a probable increase in temperature, and in his monthly report under notice he calls the attention of householders in his district to those homely sanitary precautions which will prevent the putrefactive fermentation of animal and vegetable refuse, so conducive to outbreaks of contagious and infectious maladies. He himself proposes to make the removal of manure from mewses and stable-yards on alternate days compulsory, in accordance with Section 35 of the Public Health Act.

THE SELECT COMMITTEE ON THE MEDICAL BILLS.

The business paper of the House of Commons for Monday, June 9, includes the notice of motion for the nomination of the Select Committee on the Medical Act Amendment Bills. As we stated, a fortnight ago, would be the case, Mr. W. E. Forster will be the chairman. The other names are—Dr. Cameron, Mr. Dalrymple, Mr. Errington, Mr. Goldney, Mr. Heygate, Lord George Hamilton, Sir Trevor Lawrence, Dr. Lush, Mr. Mitchell Henry, Mr. Arthur Mills, Dr. Lyon Playfair, Sergeant Simon, Mr. David Plunket, and Mr. Wheelhouse. The Committee are to have power to examine witnesses and send for papers; five to form the quorum. The selection of the members appears to have been fairly made: eight are taken from the Government, and seven from the Opposition side of the House; four of them are or have been practising medical men, viz., Sir Trevor Lawrence, Mr. Mitchell Henry, Dr. Lush, and Dr. Cameron; and the names of five of them appear on the backs of Medical Bills which have to be considered by the Committee.

CUMBERLAND AND WESTMORELAND LUNATIC ASYLUM.

Dr. Campbell, Medical Superintendent of the Cumberland and Westmoreland Lunatic Asylum, in concluding his annual report on the institution for the past year, says:—"Last year I was able to end my report by stating that the recovery rate was the highest hitherto recorded in this Asylum; that the death-rate had been low; and that there had been an entire exemption from accidents which involved loss of life or limb. It gives me very great pleasure, at the close of 1878, to make the same statement. I can scarcely expect each year to repeat it." From the foregoing it may be gathered that the history of the Asylum during 1878 was uneventful, but, owing to the number of aged and helpless patients, much nursing has been required. This can scarcely be wondered at when it is considered that of the 424 patients remaining at the close of last year sixty-five are between sixty and seventy years of age, eighteen between seventy and eighty, two between eighty and ninety, and one between ninety and one hundred years of age. It may also be mentioned that at Garlands beer and other stimulants do not form part of the ordinary diet, but are given as medicine when required. In their last report on this Asylum the Commissioners in Lunacy state that "the general health appears to be very good, and certainly does not appear to be prejudicially affected by abstinence from beer, which here is only given to those upon sick diet." The weekly cost of maintenance is given as 10s. 6d. per head.

IRISH MEDICAL ASSOCIATION.

At the annual general meeting held on Monday, June 2, the following members were elected to the undermentioned offices for the year ending May 31, 1880:—*President*: Dr. George H. Kidd, Dublin. *Vice-Presidents:* Leinster—Dr. David Jacob, Maryborough; Ulster—Dr. Gray, Armagh; Munster—Dr. Elliott, Waterford; Connaught—Dr. Leonard, Athenry. *Council:* Drs. Baggot, Enniskillen; Charles Benson, Dublin; R. Browne, Rathmines; Samuel Browne, Belfast; H. G. Croly, Dublin; Darby, Bray; Drapes, Enniscorthy; G. F. Duffey, Dublin; Grimshaw, Dublin; J. R. Harvey, Dublin; Hayes, Naas; A. H. Jacob, Dublin; J. Bellew Kelly, Drogheda; Lyster, Kilkenny; James Martin, Portlaw; Mayne, Ballybrack; R. McDonnell, Dublin; Molony, Tulla; J. W. Moore, Dublin; G. Morrogh, Dublin;

Nolan, Gort; Perceval, Stradbally; Pollock, Blackrock; George H. Porter, Dublin; T. Purcell, Dublin; J. Ridley, Tullamore; Sharkey, Ballinasloe; H. J. Smith, Donaghmore; Speedy, Dublin; Tagert, Monkstown; Usher, Dundrum; Whistler, Bray.

CARPENTER TESTIMONIAL FUND.

A VERY influential committee has been formed for the purpose of inviting subscriptions towards a fund to be called the "Carpenter Testimonial Fund." The fund is to be devoted to procuring a portrait of Dr. Carpenter, to be presented to the University of London as a permanent memorial of that gentleman's long and able services as Registrar of the University. The Right Hon. Earl Granville, K.G., Chancellor of the University, is chairman of the Committee, and the honorary treasurers of the fund are Sir John Lubbock, M.P., and William Smith, LL.D., D.C.L. Subscribers are requested to make their cheques payable to one or other of the honorary treasurers, and to forward them to one or other of the honorary secretaries of the Committee:—J. G. Fitch, Esq., M.A., 5, Lancaster-terrace, Regent's-park, and C. Knight Watson, Esq., M.A., Soc. Antiq. Lond., Burlington House.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

THE annual meeting of the Birmingham Medical Benevolent Society was held at Birmingham on May 30, T. Watkin Williams, Esq., President, in the chair. The report stated that the invested funds of the Society amounted to £9070, and that grants to the amount of £460 had been made during the year to fifteen recipients. Donations to the amount of £145 were handed in, £107 of this having been procured by the President. Mr. S. Berry's resignation of the office of Treasurer, which he had held for twenty-one years, was received with much regret. Mr. W. H. Sproston was appointed President-elect; Dr. Johnston and Dr. A. J. Harrison, Clifton, Bristol, Vice-Presidents. Dr. Wade and Mr. J. H. Bartleet were re-elected Treasurer and Hon. Secretary respectively; and Mr. Vose Solomon, Mr. J. F. West, and Mr. W. P. Goodall were elected directors in place of three retiring according to law.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT the annual meeting of the College, held pursuant to the provisions of the supplemental charter, on Monday, June 2, the following officers were elected for the year 1879-80:—*President:* Edward D. Mapother. *Vice-President:* Alfred H. M'Clintock. *Secretary:* William Colles. *Council:* William Colles; Edward George Brunker; George H. Porter; George H. Kidd; Benjamin G. M'Dowel; William A. Elliott; T. Jolliffe Tufnell; Edward Hamilton; Rawdon Macnamara; Robert M'Donnell; John K. Barton; Archibald H. Jacob; Philip Crampton Smyly; John Denham; Henry R. Swanzy; William Stokes; W. Thornley Stoker; William I. Wheeler; Samuel Chaplin.

DEATH OF PROFESSOR PIORRY.

THIS distinguished physician has just died at the advanced age of eighty-two according to some accounts, or eighty-five according to others. His professional and literary career has indeed been an active one during the last half-century, and until a month or two of his death he was one of the most assiduous members of the Academy of Medicine, taking part in some of its debates recently with all his pristine vigour. He was formerly Professor of Internal Pathology, and then of Clinical Medicine, and his communications to journals and learned societies have been very numerous. Among his works are his well-known System of Medicine, containing his original and fanciful nomenclature of disease, and his celebrated "Traité de la Percussion Médiate, ou du Plessimetrisme."

DR. B. W. RICHARDSON'S ADDRESS TO THE MEDICAL TEMPERANCE ASSOCIATION.

ON Friday afternoon last, at the Medical Society's rooms, Dr. Richardson opened his address by dwelling on the importance which attaches to the alliance of the members of the profession of medicine to the great social question of the present day, the cause of temperance. Calling on those members "to be stirring as the time, and be fire with fire," he dwelt on the obligation which each medical practitioner, sworn as he is to do all in his power to restrain disease and death, is under, to strive and arrest the annual mortality due directly and indirectly to alcohol. He dwelt on the influence which the medical profession is able to put forth in the promotion of temperance, and compared its directing influence on practical life with the influence exerted by the clergy and the heads of families and establishments. The power for good exercised by these last named was of the utmost value, but in many points of view it did not approach the power which that man holds who by his learning and authority could deal with the physical side of the alcohol question, and who could meet the plea of necessity for strong drink so often and so foolishly insisted on by its devotees. After illustrating this point, the speaker struck out a contrast showing on the other side how much harm may be done by apathy or opposition on the part of the medical man. They say in politics that one vote gained is equal to two because of the opponents' loss. In the part played by medicine for temperance, the adhesion of each medical representative is more than a gain of two, because if the support of one physician or surgeon in the cause of temperance be for good, the opposition or indifference that is neutralised is hardly to be estimated for good. A doctor whose example turns the scale ever so little towards the wrong side, a doctor who treats the question as a joke, a doctor who is content to look upon the deaths of some forty thousand of his countrymen yearly from one removable cause with indifference, is in the way of progress beyond expression. What if some other great cause of mortality—say of the disease consumption, which is at work slaying its thousands—were directly known and removable: would any medical man exhibit indifference then? Would he hand that cause about, partake of it himself, give it to his children, laugh at those who are wearying to sweep it away, or tell the afflicted from it that it is a necessity? No medical man would do any of these acts wittingly; but custom so effaces some common sources of evil that men often let indifference lead them to ignore those things which are most patent and most terrible. The Medical Temperance Society wishes respectfully to bring home these truths respecting the evils from alcohol, and so to enlist all the fraternity of medicine earnestly in the same work of suppression as that in which it, with other kindred societies in other divisions of the community, is engaged. From these points, and with the admission of the many errors of doctrine respecting alcohol with which the past was pervaded, Dr. Richardson held that there was much reason for satisfaction in the knowledge and common understanding that had in recent years been arrived at in respect to the action of alcohol on the body. He sketched out these steps of positive advance, and then considered how far there was any remaining difference, and how far there was an increasing unity of opinion on the alcohol question by the medical body. In exposition, he quoted the views of several members of the profession who, not being members of the Society, and not wishing to take any public part in the controversy, were so nearly of one mind with the views of the Society that they might, for all logical reasons, join it with every sense of propriety. The more valid objections against the views of the Society were next discussed. One objection is, that if the object of the Society, to lead to a practice of medicine based on the principle of total abstinence from alcohol in all senses except to its use as a medicine—like any other medicinal substance—were logically sound, the enforcement of the practice might act prejudicially to the cause of temperance. A second objection is, that the world is not prepared to receive the truth respecting the action of alcohol and its injurious effects, and to enforce even truth in this matter would be to oppose

free will, and to loosen the faith which is held in men whose lives are devoted to the treatment of disease. A third objection is, that alcohol, although not generally of any service, but rather hurtful than otherwise, is occasionally useful in emergency, to meet extra pressure of work, mental or physical. A fourth objection is, that history seems to indicate that alcohol has been useful in causing the development of powerful races of men. And the last, but in point of importance the first objection raised, is that alcoholic drinks are necessary in the treatment of some diseases. To each of these objections Dr. Richardson replied with much care, treating the last one named with most attention, claiming for alcohol that it might be considered as a medicine, and claiming perfect right in his capacity of physician to use it as a medicine in the treatment of disease. He contended that the only true and reliable and scientific way of using it was to administer it as alcohol, and to prescribe it in set form and dose just as other active remedies in the Pharmacopœia are regularly prescribed. For his own part, he had followed this plan exclusively for some years, and while the results he had obtained as to the value of alcohol were, in consequence, most precise, they did not place it in a very conspicuous or special position as an important aid for the relief of disease, while they gave it no pretension whatever as an actual means of cure. In any case, and at the best, its use was temporary and palliative only, while the craving for itself, which it soon excited, demanded the most watchful care.

In conclusion, quoting from Descartes to the effect that in the opinion of that philosopher all the great physical and psychical advancements would ultimately come out of the medical sciences, Dr. Richardson urged that if this prophecy were to be realised, the profession of medicine everywhere must recognise how closely it was being encompassed by the increasing general knowledge of mankind, and how essential it is that every member of it should be stirring at the time, and taking the lead in those great movements which, to the future ages, will read as movements of the grandest revolution of thought the world, up to this time, had produced.

FROM ABROAD.

Results of the French Census of 1876.

The *Journal de la Société de Statistique de Paris* publishes in its March number some of the general results of the census of 1876.

The population of the eighty-six departments and the circumscription of Belfort amounted on December 31, 1876, to 36,905,788, and is divisible into a domiciliated population of 36,045,198, a separated population (as hospitals, religious communities, colleges, refuges, etc.) of 475,514, and land and sea forces 385,076. The domiciliated population is divisible into an agglomerated 22,223,839, and a scattered population of 13,821,359—three-fifths of the population, therefore, living in a state of agglomeration, and two-fifths residing in isolated habitations. The increase since 1872 has been 362,867, or 2·22 (0·49 per annum) per 100 inhabitants. The increase has prevailed in most of the departments; but there has been a diminution in nineteen, among which are several (as La Manche, Le Calvados, and L'Orne et l'Eure) which form part of Normandy, "where population has decreased for more than 200 years, in consequence of a false principle of prudence which arrests the renewal of generations at its source." According to the actual movement of births and deaths, the population ought only to have increased since 1872 by 601,287, which leaves a balance of 201,580 individuals, either French or foreign, who have entered or re-entered France, or of Alsace-Lorraines who have fixed themselves therein since the last census. Deducting the increase of the army, the excess of immigration in France over that of emigration is 191,215. In thirty-six departments immigration, and in fifty one emigration, was in excess; but while in the former the excess of immigration amounted to 379,677, the excess of emigration in the others only amounted to 188,462. In another point of view the total excess of immigration is the result of two opposite movements—the excess of immigration into towns being 608,523, and of emigration from rural districts 417,308. The urban population (towns containing more than 2000 inhabitants) gained, at the expense of the rural, 417,308 inhabitants—*i.e.*, a little more than 1 per cent. of the total population of France. The urban population has constantly increased, having risen from 27·52 per cent. in 1851 to 32·44 in 1876.

The *specific population* of France (the number of inhabitants per square kilometer) is 69·82, therefore nearly seventy per kilometer, twenty-seven departments only exceeding this mean. That of the Seine, which holds the first rank, is 257 times more peopled than the Basses-Alpes, which is the lowest. It frequently happens that the departments which contain the greatest number of large towns are in consequence of that the most peopled; but others essentially rural, as Finisterre, Côtes-du-Nord, and Morbihan, are still densely peopled. In the census by the term *ménage* is understood the assemblage of individuals, whether married or not, with or without children, who occupy a distinct dwelling-place. The number of these *ménages* amounts to 10,088,183, and that of inhabited houses 7,433,469—so that there are 3·57 inhabitants per *ménage*, and 1·35 *ménage* per house. Each house comprises, then, as a mean, 4·82 domiciled inhabitants. With respect to the *origin and nationality* of the inhabitants, the population is divided as follows:—French born in the department in which they reside, 30,903,778; French born in other departments, 5,165,746; naturalised foreigners, 34,510; and foreigners resident in France, 801,754. The population, therefore, consists of a little more than four-fifths of individuals born in the departments in which they reside, and of a little less than a fifth of those born in other departments or abroad. As to the proportion of strangers, it has increased at each census, having been only 1·06 per cent. in 1851, and rising to 1·33 in 1861, to 1·67 in 1866, to 2·03 in 1872, and to 2·17 in 1876. Of the 801,754 foreigners residing in France, 374,498 are Belgians, 66,526 Germans (7498 being Austro-Hungarians), 165,313 Italians, 62,437 Spaniards, 50,203 Swiss, and 30,077 English. As to *sex*, the census shows that there were 18,373,637 males (49·8 per cent.) and 18,532,149 (50·2 per cent.) females, which corresponds to 100·86 females to 100 males. This excess of females, which occurs at every census, would be much higher if the nation were not increased incessantly by external elements. In the autochthonous population (French born in the departments) the proportion is 103·56, while the mean is but 81·38 in the population born out of the department in which it resides. The population is thus distributed with regard to its *civil condition*. Of infants and persons below the adult age there were 81·8 females to 100 males; of celibatarians and adults (*i.e.*, eighteen years and above for males, and fifteen years and above for females), 106·6 to 100; of married persons, 99·7 to 100; and of widowed persons, 205·0 to 100. For the two sexes united, 50·8 per cent. were children and celibatarians, 41·1 per cent. married, and 8·1 per cent. widowed. On comparing these results with those derived from previous censuses, it is found that from 1806 the proportion of children and celibatarians has descended from 57·5 to 50·8 per cent., while that of married couples has risen from 35·9 to 41 per cent., and that of widows from 6·6 to 8·1 per cent. The events of 1870-71 much contributed to this increase of widows. The same events have contributed also to modify the composition of the population according to age. Thus in 1866 there were 26·9 per cent. of children (under fifteen), and 71·1 in 1876; of adults (fifteen to sixty), 62·0 in 1866 and 61·1 in 1876; and of aged persons (sixty and above), 11·1 in 1866 and 11·8 in 1876. There is therefore a proportional diminution of adults and a continuous increase of aged persons. The mean age of the French population is 31 years 8 months, it having been 30 years 11 months in 1851. In females the mean age is 31 years and 9 months, and in males 31 years and 4 months. With respect to *occupation*, 53·1 per cent., or more than one-half of the population, is engaged in agriculture and the occupations dependent upon this; 25·9 per cent., or a little more than a fourth, is engaged in industrial and manufacturing pursuits; 10·7 per cent., or a tenth part, is engaged in commerce and transport; the liberal professions represent 4·3 per cent., or a little more than four-hundredths; and persons exclusively living upon their means form 6 per cent., or six-hundredths of the total.

Local Anæsthetic in Dentistry.—℞. Pulv. camphor ʒvj., æther. sulphur. ʒj. Apply this to the gum surrounding the tooth to be removed, until the gum turns white, when the tooth can be extracted with scarcely any pain.—*New York Med. Record*, March 22 (from *Dental Cosmos*).

REVIEWS.

The Practice of Surgery. By THOMAS BRYANT, F.R.C.S., Surgeon to, and Lecturer on Surgery at, Guy's Hospital. Third Edition. Two volumes: pp. 728 and 637. London: J. and A. Churchill.

THE appearance of another edition of this work is a sufficient guarantee of the estimation in which it is held, and of the number of surgeons and students who think well of it. Considerable additions to, and changes from, the last edition prompt us to discuss rather more fully than usual, for third editions, the value of this work.

On first opening the book we can see that a great amount of pains has been bestowed in providing plates and diagrams. Having mastered Mr. Bryant's style of writing and some awkwardness of expression, it will be found that perusal of the work well repays the trouble of sifting his words. His experience gained at Guy's Hospital through many a long day is here set forth. Mr. Bryant entitles his work "The Practice of Surgery," and we wish he had stuck definitely to that text, and not led the reader over fields of pathology, that in one part exhibit modern knowledge, and in another the crude nomenclature of our predecessors.

Osteo-sarcoma is here termed a fibrous tumour; myeloid tumours are said to be innocent; and malignancy is said to pronounce itself by local destruction. Necessarily, writers on practice of surgery should be men of considerable experience, and hence their student-acquired pathology need not be absolutely founded on an anatomical or modern basis. A little trouble would, however, enable them to adopt the modern, and make their writings more in accordance with the teachings and writings of professed pathologists, and more adaptable to present-day students. Fractures are fully dealt with, but the healing of bone is meagrely described. The genito-urinary organs are discussed at great length, but here again the pathology of the testicle-diseases and surgical kidney are very unsatisfactorily given. Some useful tables for teaching purposes are introduced. The work is said to exhibit the opinions and teachings of British surgeons at the present moment, but we are afraid that many will object to the practice at Guy's Hospital representing either the one or the other. The chapter on operations is absurdly short: ten pages are devoted to the foot, and other amputations are discussed in eight. Although Mr. Bryant says that Fergusson advocated "cutting from without inwards as the best method," still a look at the plates of this work will show that the author does not follow the advice, but adheres to the dangerous flap method. At the present moment, when students who have passed their First College are beginning surgery, we would recommend this book with caution. As an exposition of the position and practice of surgery at Guy's it may be good; as a faithful exposition of modern British surgery it may be said not to be good. The pathological teaching scattered through the substance of the book is damaging to students, and should be avoided. We should like to see a teacher of surgery setting forth his opinions in a well arranged-form—principles that he had adopted and worked upon; and his writings should be an outcome of his own beliefs, based on the test of experience of these opinions.

A Guide to the Practical Examination of the Urine. For the Use of Physicians and Students. By JAMES TYSON, M.D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, etc. Second Edition, revised and improved, with illustrations. Philadelphia: Lindsay and Blakeston. Pp. 172.

THE little work before us—and which of its kind is one of the most acceptable we have recently received from the American press—is intended as a guide to that knowledge all should possess of the examination and modes of examination of ordinary samples of urine. It may be said at once that the author is much indebted to two works—one that of Ultzmann and Hoffmann, published a good many years ago at Vienna, and followed later by an atlas of plates; and the work of Dr. George Harley, which originally appeared in these columns, the illustrations of which are mainly reproduced in the volume before us. To the former of these the author expressly states that he owes "the modes of approximate estimation so commonly used in German laboratories"; whilst we may add that we have found at least one passage which is taken almost *verbatim* from the foreign work in question. Again, let us say that we find in the text a good many little slovenly touches, such as liquor soda or liquor potassa for the genitive form ending in *æ*; cereviscæ, instead of cerevisiæ, and so on—little blots which mar a book, but do not detract from its usefulness. Furthermore, the tables suggested for recording examinations of urine are not those given by Heller, but are modifications of them.

In this way there are many odds and ends, if one might call them so, which occur here and there throughout the book, which are unsatisfactory. To take one of the earliest, Dr. Tyson bids us estimate the average quantity of solids in the urine by a simple method which he indicates. Abroad—and it is methods taken from the Continent which Dr. Tyson almost invariably follows—the quantity of urine is commonly estimated at 1500 cubic centimetres in the twenty-four hours, and the quantity of solid substance as from 60 to 70 grammes; this with a specific gravity of 1020 or thereby. Now, to find the total solid constituents in the 1000 grammes, the plan commonly adopted is to take the last two figures of the specific gravity, viz., 20, and to multiply this by 2 or by 2·33. By the former we would have, on the one hand, $20 \times 2 = 40$ grms. per 1000 c.c., or 60 for the total 1500 c.c.; by the other we would have $20 \times 2{\cdot}33 = 46{\cdot}6$ per 1000 c.c., *i.e.*, for the total of 1500, 69·9, or practically 70. Dr. Tyson goes through this calculation roughly, but he makes no mention of the multipliers, or, as they are commonly called, co-efficients; nevertheless, there are two—the former (2) called after the first investigator who sought to estimate these things, Trapp; and the other (2·33) by the name of one less known, Haeser. Dr. Tyson contrives to mix the two—the co-efficient "2" is not mentioned; the other, "2·33," is called by him that of Trapp. Such a thing may seem small, but it is by these little things that a book of this kind must be—in part, at least—judged.

As regards the detection of albumen and its rough estimation, the author recommends the plan originally proposed by Heller, though in this country called by a very different name. It consists in pouring into a test-tube a small quantity of nitric acid, then gently floating on its surface the urine to be examined, and noting the boundary line. If this be clear it is next to certain there is no albumen, for should the acid be strong, and dissolve the layer of albumen next to it, this would be in its turn diluted, so that a universal destruction of coagulated albumen cannot take place. In practised hands this is the best method we know for immediate purposes, though boiling after slight acidulation, and standing for a certain number of hours, may be on the whole safer. But the point to be enforced is the absurdity of the mode of managing this test commonly in vogue in this country. Here, if the plan be adopted at all—and that is not often,—it is the common practice to introduce the urine into the test-tube first, and then to pour the acid gently down by the side of the test-tube till it finds its way to the bottom. This plan we make bold to say may be very useful for demonstrating the presence of albumen in a given specimen of urine, but as to any value for an estimate of quantity it has none. Dr. Tyson recommends the use of a pipette for pouring the urine on the surface of the acid, and gives an elegant plate showing how it is done, but a slight experience in careful manipulation results in something quite as good. A gentle inclination of the glasses containing the acid and the urine till the flow of the one into the other is rendered as easy and gentle as possible will be found just as satisfactory and more convenient. In certain cases we dread these pipettes. If not kept clean (and that can only be done by acid and boiling water) they are likely to lead to all sorts of mistakes. But for making quite sure Dr. Tyson has a pet method of his own, in which he uses "strong alkalies" for clarification. All we have to say is, that we wish him good luck if he finds a *trace* of albumen in this way. Unfortunately we have no good, certainly no exact, method of estimating albumen.

Next, as regards sugar, Dr. Tyson seems to have a strong regard for that well-nigh discarded method known as Trommer's. We do not mean that for rough purposes this test is not very useful and very handy, but when it comes to be a question whether sugar is present in the urine or not, and in what quantity, commend us not to Trommer. Still less should we rely upon Moore, for we have got reactions with

a carefully prepared copper solution where Moore's yielded none. If a simple solution of the copper kind be desired, that devised by Pavy is the best, though, as pointed out in Dr. Tyson's book, it is so made as to represent a different formula for sugar than that to which Fehling's is adapted.

Closely following on the chapter on sugar is one relating to pigments. There is no more interesting subject in connexion with the chemistry of the urine, and there is some information here which is not readily available. It is the passage above referred to; for happening to turn to an excellent little work published in Vienna, and of which Dr. Tyson admittedly has made large use, we were somewhat surprised to find that what was found in the work now before us was almost a *verbatim* translation of a similar passage in the German work. Then we noted—what we could not understand before—the words "Hoffmann and Ultzmann," the authors of the work referred to, but in such a position and in such a type as to lead no one to suspect that they were in reality the actual authors of the passage.

One more remark, and we have done. We had noted many passages to which reference might be made, but this notice has already exceeded due bounds. It may be the fault of the printer or it may not, but there are, as we have mentioned above, repeated blots in the way of spelling to be met with in the book. The plates might certainly be improved in many instances. Nevertheless, take it all in all, the book is one of the best and handiest we have yet seen.

Histoire Thérapeutique du Bromure de Potassium. Par le Docteur GEORGES HUETTE (de Montargis). Paris: J. B. Baillière et Fils. 1878.

The History of Bromide of Potassium as a Medicine. By Dr. GEORGE HUETTE, of Montargis. Paris: J. B. Baillière et Fils. 1878.

THE author of the essay before us has a special claim to call the subject of bromide of potassium his own. It was his father who, in his inaugural thesis, in 1850, entitled, "Recherches sur les Propriétes Physiologiques et Thérapeutiques du Bromure de Potassium," was one of the first to indicate the powerful influence of the salt as a sedative on the nervous system, and to study the effects of very large doses on the human subject. His immediate predecessor, as assistant to M. Puche in the wards of the Hopital du Midi, Dr. Rames—also studied, and described the symptoms produced by the bromide, but less elaborately.

The present work is, therefore, a son's tribute to the memory of his father. That the subject is one well deserving notice is shown by the extraordinary increase in the consumption of bromide of potassium of late years, as proved by the registers of the Pharmacie Centrale des Hopitaux, at Paris. In 1855, 8 kilogrammes 200 grammes were dispensed; in 1865, 73 kilogrammes 530 grammes; and in 1875, 730 kilogrammes 910 grammes. The great part, no doubt, of this enormous difference is due to the universal use of the bromide in epilepsy; but the number of papers which have appeared bearing on other applications of it—for example, as an hypnotic, as a remedy in puerperal eclampsia and infantile convulsions, and in menorrhagia—prove that epilepsy is by no means the only disease in which it is prescribed.

The first part of Dr. Huette's essay gives a careful *resumé* of the chemical and pharmaceutical properties of the bromide, including the tests of its purity, for "it is of the greatest importance that the salt used for medicinal purposes should be absolutely pure." We need not dwell on this section.

The first chapter of the second part takes up the early history of bromine and bromide of potassium as drugs, and contains long extracts from the theses of Drs. Rames and Huette, sen., already mentioned.

The second chapter includes an account of the physiological action of the bromide in large doses, not omitting the skin eruptions which it occasions, and then passes on to review its various applications to the treatment of disease. In inflammatory and painful catarrhal affections of the pharynx and larynx, Gubler and others have found the *pain* relieved by the drug. In uncomplicated whooping-cough, and in asthma, in the nervous condition met with in women at the menstrual period, and especially at the change of life, it is of considerable value. "In the insomnia of literary men, of febrile patients, and, in fact, in all conditions associated with cerebral congestion, it is invaluable. The hypnotic action of bromide of potassium constitutes one of its most important, decided, and constant properties." When we mention that its effects on urethral spasm, seminal losses, and some forms of the vomiting of pregnancy, are undoubted, and that Dr. Huette considers it, "if properly administered, the most certain anaphrodisiac in the Pharmacopœia," we have said a good deal in favour of the drug. But the list of nervous affections benefited by it is not exhausted, and the third chapter enters at considerable length into the treatment by it of epilepsy and eclampsia, and formulates the conclusions which some of the best French observers—M. Lasègue, M. Falret, and M. Germain Sée—have arrived at with regard to it. The verdict seems to be briefly this: that the bromide nearly always checks or diminishes the number of fits as long as its use is continued, but that its effect is not often permanent. Omit the medicine, and the fits return. Dr. Huette draws a sombre picture of the mental condition which epileptics condemned to the perpetual use of the bromide will ultimately attain. We almost doubt whether English authorities will agree with all that is said on this point at pages 169, 170.

In hysteria, chorea, and tetanus, bromide of potassium has not, according to Dr. Huette, responded to the hopes of those who have tried it.

The other compounds of bromine are discussed briefly in the final section, and require no mention here. A copious bibliographical index, in which, however, we miss the name of Dr. Russell Reynolds, ends the essay, which we can heartily commend to the notice of our readers.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, June 3.

ANNUAL MEDICAL MEETINGS: ROYAL COLLEGE OF SURGEONS; IRISH MEDICAL ASSOCIATION; ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

AT the annual meeting of the Royal College of Surgeons for the election of officers for the ensuing year, held pursuant to the provisions of the supplemental charter on the first Monday in June, Dr. Edward Dillon Mapother, Surgeon to St. Vincent's Hospital, was elected President, in succession to Dr. Philip C. Smyly; Dr. Alfred H. McClintock was elected Vice-President without opposition. Scarcely any changes took place in the constitution of the Council of the College. Dr. Smyly was co-opted in room of Dr. McClintock, while Mr. Corley was replaced by Dr. William Ireland Wheeler.

According to custom, several of the members of the Irish Medical Association breakfasted together at the Shelburne Hotel on the morning of the day of the annual meeting—Monday, June 2. The Association met subsequently at noon in the Council Chamber of the Royal College of Surgeons for the despatch of business. There was a large attendance of both town and country members. The chair having been taken by Dr. Robert M'Donnell (the President), and the minutes of the last annual meeting having been confirmed, Dr. Chapman, Hon. Secretary, read the annual report. During the past year the Council had held six meetings, and the Committee of Council (upon whom most of the business devolves) had held forty meetings. The proceedings of Parliament with regard to matters affecting the interests of the medical profession required and received much attention. The report dealt with certain questions which had arisen in connexion with the Public Health (Ireland) Act, 1878—a measure which received the Royal assent on August 8, 1878. The report also referred to the action taken by the Council in relation to the Bills now before Parliament to amend the Medical Act of 1858, the Bill to amend the Vaccination Acts, the proposed "Registration of Births and Deaths Bill," the "Dispensaries (Ireland) Bill," and the "Disqualification by Medical Relief Bill." The report further alluded to the examination of medical officers at coroners' inquests, recent grievances of the medical officers of prisons, the abuse of dispensary medical relief, the granting of superannuation to medical officers, the granting of leave of absence to medical officers, and the proposed incorporation of the Association.

The statement of accounts for the past year duly audited having been submitted, Dr. A. H. Jacob moved, and Dr.

Darby seconded, the adoption of the report and statement of accounts, which was carried. The following resolutions were then put to the meeting, and unanimously adopted:—1. "That it would prove beneficial to the public interest, and be but an act of justice to the medical officers of the Poor-Law Service who by reason of illness or infirmity have become unfit to discharge their public duties, or who have either served twenty years or attained the age of sixty years, that they should, as a matter of right, receive superannuation allowance, in amount not less than two-thirds of their official emoluments." 2. "That the issue of medical relief tickets to undeserving persons encourages indolence and vice, discourages independence and respectability, involves a heavy and improper imposition upon the poor-rates, and is oppressive and unjust to the dispensary medical officers; this Association therefore requests the Council to continue their efforts to procure amendment of the law and regulations in this respect." 3. "That the medical officers of the Poor-Law Service are fully entitled to a reasonable period of leave of absence each year at the public expense, as in the case of Civil servants, and that such an arrangement would tend towards increasing the efficiency of the Service, and prove beneficial to the public interest." 4. "That this Association highly disapproves of the action of the Local Government Board with regard to the administration of 'The Public Health (Ireland) Act, 1878,' which has so far deprived the public and the medical profession of many important advantages conferred upon them by that Act." [This resolution refers to the non-withdrawal of the maximal scale of fees adopted under the "Public Health (Ireland) Act, 1874," and to the non-providing of independent sanitary supervision.] 5. "That this Association approves of the principles of medical reform advocated by the Council during the consideration by Parliament of the Medical Act (1858) Amendment Bills of this session." 6. "That this Association approves of the action of the Council with reference to the 'Vaccination (Ireland) Amendment Bill' now before the House of Commons, whereby it is sought to have that measure assimilated to the law in force in England, and so modified that it may prove an effectual amendment of the present unsatisfactory laws." 7. "That the Council are hereby requested to persist in their efforts to have the 'Registration of Births and Deaths (Ireland) Act, 1863,' amended, in accordance with the principles of the Bill drawn up by this Association, which was presented to the House of Lords in 1876."

Dr. Darby proposed, and Dr. Purcell seconded, a resolution similar to one adopted at the last two annual meetings for the formation of the Association into an incorporated company. This resolution was carried unanimously. The result of the ballot for the election of officers was then declared, and a vote of thanks was passed to the professional and general Press. The incoming President, Dr. George H. Kidd, having taken the chair, the proceedings terminated with a vote of thanks to Dr. Robert M'Donnell, the outgoing President. In the evening the annual dinner of the Association took place in the Albert Hall of the Royal College of Surgeons, covers being laid for sixty-four guests.

At 4 p.m. the same day, the thirty-seventh annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held in the library of the Royal College of Surgeons. The chair was taken by Dr. Smyly, outgoing President of the College. The report was read by Dr. A. H. McClintock, one of the honorary secretaries. It acknowledged gratefully the labours of the honorary officers of the auxiliary branches in the provinces, and especially in each presidency of India, where Dr. King in Madras, Surgeon-Major Chesnaye in Bengal, and Surgeon-Major Joynt in Bombay, laboured with untiring zeal to advance the interests of the Society.

During the past year donations and bequests to the amount of £355 had been received—viz., Mr. Robert Hudson, of Chester (per Dr. Hudson), £100; Dr. Philip Smyly, £50; Dr. Robert M'Donnell, £25; Dr. J. M'Donnell, £5; the late Surgeon Henry M. Johnston, of Belfast, a bequest of £50; Mrs. Elliott, of Upper Norwood, London, £10. The donations of Dr. Smyly and of Mrs. Elliott are by their request included in the awards of the present year, which amounted to £1344, being a little over the sum distributed last year. Medical students in Dublin, Galway, and Cork had contributed a sum of £32 towards the fund. Since the last distribution, seventeen applications for assistance—six from Dublin, and eleven from the provinces—were sent in at irregular times. To nine of these, grants altogether amounting to £144 were awarded in anticipation of this distribution. The case of one of these applicants is worthy of mention, as showing the peculiar value of this Society, and well illustrating the maxim *Qui cito dat, bis dat*. A lady, comparatively a stranger in Dublin, was left, by the sudden death of her husband (a surgeon), homeless and penniless, with three young children, and a fourth expected. In her extremity she applied to the Society for aid, and received an immediate grant of £30; and so much sympathy was awakened for her, that this grant was supplemented by a considerable collection, which enabled her to return to her family in Bermuda. The total number of claimants this year is 99, 14 of which are new cases, including 2 medical men. The 99 cases consist of 80 widows, 11 orphans, and 8 medical men. The total number applying through the provincial branches is 51, and through the central branch 48. Two of the medical men obtaining grants this year got £80 a-piece, but for which they would be in a state of absolute destitution. One of these gentlemen is over eighty years of age, and very ailing; the other, though much less advanced in life, is utterly helpless from complete hemiplegia, and suffers great annoyance from an enormous scrotal hernia which no truss can keep up.

The soundness of the principles on which the Society is based has been tested by the experience of thirty-seven years, and the amount of good it has done and is doing is incalculable. It has now become one of the recognised medical institutions of this country, and, in regard of its objects and operations, though not of its resources, it well deserves the honour of such association. Let each practitioner in Ireland give but 5s. a year to its funds, and this financial blot will be removed. That "charity should begin at home" is an acknowledged Christian obligation; and if true in the case of individuals, why not in that of professions?

Dr. Churchill, the Hon. Treasurer, having submitted the statement of accounts, the adoption of the report was moved and carried unanimously. The remainder of the business was of a routine character.

GENERAL CORRESPONDENCE.

COMPULSORY REGISTRATION OF INFECTIOUS DISEASE.—LEICESTER IMPROVEMENT BILL.

LETTER FROM MR. C. R. CROSSLEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—It is of the utmost importance that the medical profession throughout the kingdom should know that powers, at once extraordinary and compulsory, are being given by Parliament to municipal authorities in various parts of the country. The Leicester Corporation has now in Parliament an "Improvement Bill," containing a clause to the following effect:—"That every medical man, under a £10 penalty, must inform the Corporation of every case of certain infectious diseases, such as cholera, typhus, typhoid, erysipelas, smallpox, diphtheria, puerperal and scarlet fevers, that may occur in his practice, public or private." The medical men of Leicester as a body, strenuously protest against such obligation being imposed upon them. They are allowed no discretion, and are liable to be placed in the position of criminals for a simple act of omission. The main objections are as follow:—

1. The penal clause.

3. The complications which would, owing to breach of confidence, of necessity occur between patient and medical man.

3. The clause not affecting irregular practitioners such as unqualified assistants, chemists, herbalists.

4. That many patients, for fear of being reported, would not seek medical advice, and thus become unchecked sources of infection.

5. That any such legislation should be *imperial*, not *local*.

We, the medical men of Leicester, have opposed, at considerable expense, this Bill in the House of Commons, and so far unsuccessfully. Our profession has ever been in the van of sanitary reform, progress, and action. In Leicester we have given the Corporation much help: we have advised the Corporation as to the infantile diarrhœa, the scourge of the town; we have, unsolicited, given them information of

the last three outbreaks of small-pox; and now we are insulted by being placed under penalties. We learn that certain corporations have applied to the Local Government Board to bring in a general Bill for this compulsory registration. The President told them that the profession was very "touchy" on this subject, and that he should not bring in a Bill without consulting the heads of the profession. The officials of the Local Government Board, it is said, advised these corporations to smuggle in a clause to obtain this power in their various "Improvement Bills" where it would not be noticed, and so escape opposition. Then, after some twelve or fifteen towns had obtained this power, and had it in working order, the Local Government Board would be able to bring in and pass a general Bill affecting the whole of the country! This Machiavellian advice has so far succeeded only too well, and, unless the whole profession now comes forward to help Leicester in opposing this Bill in the House of Lords next July, a fatal precedent may be created. Future opposition from medical men in other towns will be futile, and so the way to a general Bill will be paved. We wish to state clearly to the medical men of the country that unless they wish to have penal clauses of a similar nature imposed upon them (by a general Bill), they must materially support us in our present opposition. We have opposed as far as our means permit, and for future opposition we appeal with confidence to the profession throughout the United Kingdom. On behalf of the profession in Leicester,

I am, &c.,

C. R. Crossley,

President of the sub-Committee of the Leicester Medical Society.

P.S.—Subscriptions should be sent at once to me—the New Walk, Leicester.

May 27.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 20.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

The President announced the new regulations, already reported in our columns (page 570), providing for the exhibition of certain specimens without any oral communication or discussion before the Society.

Reports by Morbid Growths Committee.

(1.) *On Mr. Lister's Specimen of Encephaloid Cancer of the Scapula.*—The Committee found that the tumour throughout was made up of groups of round or oval nucleated cells of a uniform size contained in distinct alveoli, having walls of varying thickness. The tumour was an encephaloid cancer, but there was no evidence as to the site of its origin, and none to prove that it was a primary cancer of the scapula.

(2.) *On the Specimen of Rodent Ulcer exhibited by Dr. Sangster and Mr. Bellamy.*—The Committee found the microscopical appearances were just those that had been described by Dr. Sangster. There was no connexion between the new growth and the hair follicles. No groups that could properly be called "cell-nests" were met with. The appearances agreed with the description of rodent ulcer given by Dr. Thin.

(3.) *On Mr. Heath's Specimen of Tumour of the Scapula.*—This growth the Committee reported to be of the nature of fibro-sarcoma, some parts showing mainly fibrous tissue, others mainly cells. The muscles alone were involved, the bone being not affected by the growth.

Report of Committee on Pyæmia, Septicæmia, and Purulent Infection.

Dr. Ralfe, Secretary to this Committee, presented their report, of which he read an abstract. The report was illustrated by a large number of microscopical specimens. In our last week's number, at page 592, we gave a summary of the abstract read before the Society.

The President, in proposing a vote of thanks to the Committee, reminded the Society that this Committee had been appointed at the suggestion of the late Dr. Murchison, who had taken great interest in the Committee's work, and had been mainly instrumental in obtaining from Government a grant of money towards the expenses of the investigation. It was not in accordance with the Society's procedure to have a discussion on the report of a Committee like this; but the report, of which they had now heard the abstract, would be printed in full in the Society's *Transactions*, and he had no doubt it would be found to add greatly to our knowledge of the subjects inquired into.

Specimens of Skin Diseases from the Horse.

Dr. Thin showed three specimens taken from the horse. The first was a case of multiple sebaceous tumours of various sizes, from that of a pin's head to that of a bean. They were encapsulated, the capsules being apparently subdivided by divisions formed of epithelial cells and filled with sebaceous material. The second case was one of erythema circumscriptum. The animal had suffered from suppuration of the sub-maxillary glands, after which there appeared a number of discoid elevations over the body, varying in size from that of a sixpenny-piece to that of a florin. They were distinctly raised at the margins and in the whole diameter. On microscopic examination these elevations were found to be caused by effusion of the serum of the blood without any of the formed elements; and this had resulted probably from pressure on limited areas, or from local injury to the bloodvessels. All this time the animal was suffering from cellulitis, and he would suggest that poison had been absorbed by the blood, and had produced these local lesions. He would ask whether erythematous eruptions in man might not sometimes be due to such a cause. The third case was one which he at first regarded as eczema, there being an eruption attended with a gummy discharge and itching. But microscopically the appearances were different from eczema. The sebaceous glands were more or less disintegrated, and the hairs were either absent or broken up. There were minute abscesses in the deeper layers of the epidermis, like those found in the skin of a horse suffering from tinea tonsurans. There was no cell infiltration, no swelling of the cells of the rete, nor any serous infiltration as in eczema. Neither was the term "acne" applicable, for the lesion was not confined to the sebaceous follicles, but extended to the hair-shafts.

The President had seen a condition similar to the last described spreading from an abrasion on a horse's back. He had regarded it as an eczema.

Foot with Nine Toes.

Dr. Douglas Powell exhibited for Mr. Mason a specimen showing this congenital deformity for which the leg had been amputated. There was no hereditary tendency to malformation. The boy's thigh was developed normally. The chief point of interest was the peculiar manner in which tendons had been provided for all the toes by the muscles of the limb.

Rupture of Aorta into Pericardium.

Dr. Norman Moore exhibited a heart taken from a well-made muscular man who had been an in-patient of St. Bartholomew's Hospital. He had a well-marked double bruit at the base, and mitral mischief was also suspected. Soon after admission, he fell forward dead when sitting up in bed. The pericardium was found to contain two pints of clotted blood. The heart showed hypertrophy of the left ventricle. The flaps of the mitral valve were adherent, with calcaceous deposits. The aortic valve was quite incompetent; two of its divisions had become adherent, and presented calcareous deposits. About an inch above the aortic valve the aorta was torn almost completely across. The blood had passed in at the seat and dissected its way downwards a little between the inner and outer layers of the wall of the vessel before bursting through the outer layer and the visceral pericardium into the free cavity of the latter. There was no aneurismal dilatation of the vessel. Dr. Moore remarked on the great rarity of the accident except in connexion with aneurism.

Recto-Vesical Fistula.

Dr. Alex. Morison exhibited a preparation taken from a male aged fifty, who had been ill for about four years before death. After suffering rectal discomfort for some months, most severe just before and after micturition, air-bubbles began to pass out at the urethral meatus. Afterwards blood and fragments of fæculent matter were also voided per

urethram, and a quantity of flatus, which was not observed to possess a bad odour. In December, 1878, the recto-vesical pain became worse, and a fæculent abscess formed in the recto-prostatic cellular tissue, passing forwards and upwards, and eroding a passage into the membranous portion of the urethra, though it had been evacuated per perinæum. Cystitis, with dysuria and occasional orchitis and the passage of quite fæculent urine, supervened, and the patient died of septicæmia without metastatic abscesses. Post-mortem the rectum was found to be constricted by an inflammatory band about the junction of its middle and upper thirds, and just above the stricture there was a recess in the gut communicating with an abscess cavity about the size of a walnut in the recto-vesical cellular tissue. This cavity opened into the bladder about two inches from the commencement of the prostatic canal. The prostate was found to be normal. The speaker was of opinion that the arrest of a fish-bone in the gut had probably been the starting point of the mischief.

Microscopic Appearances in a Case of Iodide of Potassium Eruption.

Dr. Vincent Harris enumerated, for Dr. Duckworth and himself, the results of an examination of the pustules which had formed on the back of the hand of a man when under the influence of iodide of potassium. The patient had been exhibited for the iodide rash before the Clinical Society in November, and had died since then, and pieces of skin with the pustules were removed after death. The pustules involved chiefly the superficial layers of the true skin, the papillary layer being flattened out and excavated at the affected part. The margin of the pustule was formed by this layer, which contained a large number of small cells with newly formed fibrous tissue (fibro-nuclear layer). Bloodvessels were very numerous beneath the pustule. They were apparently dilated, but were empty. The vessels passing into the depth of the corium in the centre of the pustule, and those of the surface of its periphery, were ensheathed in streaks of exudation corpuscles. None of the vessels had been ruptured. The sweat-glands and hair-follicles were not affected at all. The inflamed tissue was distinctly marked off from the subjacent healthy structures. The epithelium bounding the pustule seemed perfectly healthy. The inference was that these pustules were the result of a superficial localised dermatitis producing a cicatricial tissue, but there was no evident cause for such localisation. Dr. Klein had examined the specimens, and agreed with the description given.

Dr. Duckworth said that the iodide of potassium pustule had usually been regarded as an acne. But Dr. Thin had pointed out that the true sebaceous glands were not affected, and this was a second case showing the truth of his observation. The rash would appear to be a vesiculating dermatitis, and not a form of acne.

This was the last meeting of the Society for the session.

CLINICAL SOCIETY OF LONDON.

Friday, May 23.

Richard Barwell, F.R.C.S., Vice-President, in the Chair.

Intussusception of the Ileum into the Cæcum through the Ileo-Cæcal Valve—Laparotomy—Death.

Dr. Coupland and Mr. Hulke communicated a case of intussusception of the ileum into the cæcum through the ileo-cæcal valve, associated with a polypoid tumour, in which laparotomy was performed on the fifth day, with great immediate relief, death resulting on the seventh day. The patient was a spare, old-looking blonde, aged sixteen, of highly hysterical temperament, who was admitted into the Middlesex Hospital on March 16, 1879, having been seized the previous day with colicky pains and vomiting. She had just recovered from a similar attack lasting a few days, and was said to have suffered in the same way some two years before. There had been a natural motion that morning, but no blood had been passed. On admission, the paroxysmal pain in the abdomen was the chief symptom, but there existed a prominent cylindrical swelling in the upper part of the right iliac region, and an area of dulness below this. There was no general abdominal distension, and no constitutional disturbance. The case being regarded as probably one of typhlitis and fæcal accumulation, sedatives were given and enemata administered, the latter without effect. Vomiting continued incessantly, being produced by everything that was taken, the pain, less severe on account of the opiates, still remained, and no change took place in the swelling and area of dulness. On the 14th she was obviously weaker, the vomiting was bilious in character, the abdomen more tympanitic. A large soap-and-water injection of four pints was returned discoloured, with a penetrating, peculiar odour. Mr. Hulke was consulted. He found nothing on examination either by the rectum or the vagina, and, after a further consultation with Dr. Cayley and Mr. Nunn, it was considered that, the case being probably one of intussusception (and possibly already gangrenous), and the patient being extremely exhausted, the abdomen should be opened. Mr. Hulke performed laparatomy, and on exploring the belly detected an intussusception of the ileum through its lower end into the cæcum. Reduction being found impossible, the ileum immediately above was secured in the lower angle of the wound and opened. Great relief followed, the vomiting and pain entirely ceasing, but thirty-six hours after the operation she sank from the peritonitis, which was present at the time of operation. The post-mortem examination revealed an intussusception composed of fully three feet of ileum, through its lowermost six inches, and through the valve; the invagination extending for a distance of twelve inches into the colon. The lips of the valve and the surface of the invaginated gut were deeply ulcerated; much lymph occurred between the serous layers, whilst the central tube was filled with blood-clot, except for its upper three inches, which was occupied by a firm, fleshy, cylindrical polypoid mass, almost the size of the little finger. There was slight general recent peritonitis. The other organs were healthy. The obscurity in the diagnosis, the absence of melæna, the time that elapsed before the symptoms became severe enough to favour the view of complete obstruction, and the fact that the vomiting was never stercoraceous, were dwelt on; and it was pointed out that the variety of intussusception here present was of comparatively rare occurrence. The co-existence of a polypoid growth (it was ligamentous in character), and its situation at the last part of the bowel to become invaginated, were also points of interest; the presence of the tumour doubtless preventing reduction as well as hastening the ulcerative process.

Mr. Marsh inquired if there were ever cases of fæcal obstruction which produced such symptoms as were found in this case; because valuable time was lost in endeavouring to establish the diagnosis, and by the time the surgeon was asked to operate the patient was almost *in articulo mortis*. He doubted if fæcal accumulation, although it often gave rise to severe symptoms, was ever attended with such rapidity and severity as characterised the outset of this case.

Mr. Bryant also thought it chiefly a question of diagnosis: the symptoms would have been chronic and altogether slower if due to fæcal obstruction. Time was undoubtedly lost, and when the surgeon was asked to operate it was almost a hopeless case. There were, however, no symptoms of tenesmus or of the passage of blood-stained fluid as were usual in intussusception, and this fact had probably led to the extra difficulty found in the diagnosis of the case. The cause of the intussusception was very interesting; there was such another preparation in the museum of St. George's Hospital, taken from one of Mr. Pollock's patients. Intussusception through the ileo-cæcal valve was common. Why the blood found in the ileum had not escaped to the colon, and so externally per rectum, was not obvious.

Mr. Hulke said that the appearance of hæmorrhage or of blood-stained mucus in cases of intussusception was not constant. It was often present, and then constituted a valuable point in the forming of a diagnosis, but its absence could not be considered as of great moment. He thought that when the obstruction was acute the course of the blood was arrested in the invaginated gut, and none therefore came away. The patient, though she eventually died, had rallied wonderfully in a few hours after the operation; in fact, from being quite cold in the evening, she became warm in the morning.

Dr. Coupland remarked that the case did not at first appear to be very severe, and the symptoms then seemed to point to fæcal obstruction. In invaginations of the ileum through the ileo-cæcal valve, the cæcum commonly slipped into the colon, and dragged the ileum after it; simple invagi-

nations of the ileum through the ileo-cæcal valve were most rare. The tumour, as it were, had led to increased peristalsis of the intestine, and the tumour, after its intussusception, had become so firmly fixed below the valve that its return was found to be impossible.

On the Simulation of Ascites in Cases of Intestinal Obstruction.

Dr. Markham Skerritt (of Clifton) read a paper on two cases which showed that dulness in the dependent parts of the abdomen changing its site with alterations in the position of the patient, which was commonly regarded as the most reliable sign of ascites, might exist when there was no fluid in the peritoneal cavity. The first case, fully reported to the Society on February 14, was that of a patient admitted into the Bristol General Hospital with intestinal obstruction from what proved to be a plug of fibrinous exudation; when the patient lay on his back there was dulness in both flanks as high as the anterior superior iliac spines, but when he turned on either side the uppermost flank became resonant. Post-mortem, the small intestine was found to be greatly distended with liquid fæces and gas, and there was no fluid in the peritoneal cavity. The second case was that of a boy, aged sixteen, admitted into the Bristol General Hospital five days after the onset of symptoms of intestinal obstruction; here also there was dulness in both flanks when the patient lay on his back, and there was resonance in the uppermost flank when he lay on his side. Post-mortem, a coil of small intestine was found to be bound down by tough adhesions; the gut above was greatly distended with fluid fæces and gas; and there was no fluid in the peritoneal cavity. The following explanation was given of the simulation of the physical signs of ascites in these cases. The gas and the liquid fæces in each coil of intestine necessarily obeyed the same physical laws as did the gas-containing intestines and the free fluid in ascites; that is, in each coil of intestine the gas would rise to the top in whatever position the patient lay, and the fæces would sink to the bottom; and that this was appreciable to percussion on account of the great distension of the individual coils, and also of the large proportion of fluid fæces contained in them. According to this theory, when the patient lay on his back the dulness in each flank was the sum of the dulness due to the liquid fæces in the individual coils; and when he lay on either side the resonance in the uppermost flank was the sum of the resonance produced by the gas in the same individual coils. The existence of this physical sign had apparently not been before described; and the fact was of some practical importance because this source of fallacy in diagnosis of ascites would be met with in cases where the presence of peritoneal fluid would be of considerable diagnostic value; it would present itself only in cases where there was arrest of passage of fæces; this stasis might be due either to a mechanical obstacle or to enteritis or peritonitis simply; and the apparent presence of a small quantity of peritoneal fluid would, in such a case, be strongly in favour of the existence of peritonitis, and, therefore, against the utility of surgical interference. Hence it was necessary to remember that in cases where there was great distension of the intestines with liquid fæces, the common physical sign of ascites might exist when there was no fluid in the peritoneal cavity.

Dr. Coupland described a somewhat similar condition in a patient with acute abdominal obstruction, in whom there had been supposed signs of ascites. After death, which had quickly supervened, there was found a volvulus around an unobliterated vitelline duct.

Dr. T. Taylor inquired if the other method of detecting ascites was employed—viz., that of the percussion wave. As percussion did not of itself give an infallible sign, he thought the percussion wave should have been practised.

Dr. Skerritt said that no fluctuation could be obtained across the abdomen from side to side; but he thought he had noticed that when the quantity of ascitic fluid in the abdomen was very small, the percussion wave was often absent. He had brought forward his cases, as he had been unable to find any published reference to the question which they appeared to settle.

The Communicability of, and some other Points connected with, Molluscum Contagiosum.

Dr. Stephen Mackenzie read a paper on cases illustrating the communicability of, and some other points connected with, molluscum contagiosum. The cases were brought forward, not on account of their rarity, but to illustrate the contagious character of the disease, a point on which English dermatologists were agreed, but which foreign dermatologists still appeared to doubt. In the first series a mother and four children were affected, and two of the latter re-infected. A maternal aunt living exactly opposite also suffered from the same disease at the same time. The fourth child was first affected, and communicated the disease to the baby. The latter was temporarily cured, but re-acquired the disease on its face, and communicated it to its mother, whose breasts were covered with as many as from thirty to forty mollusca, as shown in a drawing. The sixth child was next affected, and the fourth, who first contracted the disease, was re-infected. The fifth child was affected at the same time as the preceding. The mother's sister living exactly opposite had two tubercles of molluscum contagiosum on her face at the same time. She frequently nursed the children. In the next series an infant, eighteen months old, was brought with numerous molluscum tubercles on her face, and her mother had two mollusca on her breast, of which she appeared ignorant. These patients were exhibited. The next series were two little children, living next door, associating much together, both affected with the characteristic tubercles. These patients were also exhibited. Next were narrated the cases of two patients with molluscum contagiosum, who were said to have come in contact with persons similarly affected. A case was also given in which a family predisposition seemed to exist, for four out of six children had been affected between the ages of two and three years, no two being simultaneously affected. The youngest had not reached the susceptible age. An account was then given of some unsuccessful attempts to inoculate the disease. The sebum and expressed gland-substance had been rubbed into parts, and the matter introduced by scarification, but in no case was the disease propagated. To ascertain whether the non-success was due to non-susceptibility in the persons experimented upon, a series of inoculations was made in persons the subject of the disease, the sebum from their own molluscum tumours being employed. No better success attended these experiments.

Mr. Morrant Baker had seen two or three instances in which the mother had molluscum contagiosum on the breast, and the child the same on its face. He had also seen the disease symmetrically distributed on the mother and child.

Mr. Malcolm Morris said that no English dermatologists, with the exception of Mr. Erasmus Wilson, doubted the contagiousness of this disease; and Dr. Mackenzie's cases would still further confirm them in that opinion. He had seen at St. Mary's Hospital a child with the disease, from whom an infant had caught it, and afterwards the mother from the infant.

Dr. Sangster had had under his care at Charing-cross Hospital a child, in which the disease began on one side of the thigh and vulva, whence it spread to the opposed surfaces of the other thigh and other side of the vulva. He attached but little importance to the non-contagiousness of the disease when artificially inoculated; and thought that constant contact with friction was probably necessary to its propagation.

Mr. G. Brown had seen several cases of the kind, especially in children. In no instance was the child affected without the mother's breasts being also similarly diseased. He thought the disease very common, almost endemic, in the East of London.

Mr. Hulke had at Moorfields seen many cases of the kind, and thought the evidence of contagiousness very strong.

Mr. Marsh thought the same.

Dr. Mackenzie said that dirt was not an essential of the disease. He thought that Dr. Sangster had hit the point in saying that constant friction, with warmth and moisture to assist, would produce the disease.

(To be continued.)

A distinguished service reward, vacant by the death of Deputy Inspector-General of Hospitals Dr. Burke, has been awarded to Dr. Arthur Anderson, C.B., retired Inspector-General of Army Hospitals. Dr. Anderson served throughout the campaign in the Crimea, and subsequently in the China War at the capture of Canton.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 27.

JOHN ERICHSEN, F.R.S., President, in the Chair.

ON DELIGATION, FOR AORTIC ANEURISM, OF THE RIGHT CAROTID AND SUBCLAVIAN ARTERIES, WITH A NEW SPECIES OF LIGATURE.

MR. RICHARD BARWELL read this paper. After reminding the Society that he had already recorded four cases of double ligature of those vessels, three of which were successful, the author pointed out that the same operation was in the present case undertaken, not for innominate, but for aortic aneurism. As this practice and the ligature used are new to surgery, somewhat lengthy remarks would be necessary; hence the case must be briefly recorded. John S., aged thirty-six, grey and old for his years, was treated by Dr. Green for an aneurism of the aorta which pressed upon the right bronchus, and by the middle of February, six weeks after admission into Charing-cross Hospital, that tube was very nearly closed, and the right lung occluded from the air. On the 15th Mr. Barwell tied the right carotid and subclavian arteries with immediate sense of benefit to the patient, who continued to improve, air entering the lung freely until the end of March, when some private news produced great excitement, and shortly afterwards symptoms of dilated aorta about the origin of the left subclavian appeared; these again diminished, so that in the first week of May the man was in a far better state, air entering the right lung, although some disease of that organ had been produced by the previous pressure. Mr. Barwell remarked that the three large branches of the transverse aorta are not given off at right angles to the trunk, but so obliquely that the distal margin of the orifice of each lies lower than the proximal; from this distal margin run downwards and to the right certain ridges, which, acting on the blood-stream, divert the current at that part into each orifice. These ridges divide the upper aspect and a portion of the antero-posterior wall into districts, one for each vessel. A fibrous concretion detached from an aortic valve finds its way, as a rule, into the left carotid—a fact which has given rise to the idea that this vessel lies more in a straight line with the aorta than the right. The author showed the contrary to be the fact: that a probe passed down the left vessel impinges on the aorta near its origin; that one passed down the right artery enters the heart. He concludes that we can only account for concretions going to the left carotid by believing that on the right of the ascending aorta (the exact part was shown in diagram) the blood-current is more tranquil than on the left of that vessel. The two currents may be supposed separated by a line drawn from the left carotid orifice to the outer aspect of the origin of the aorta. Hence it may be concluded that for aortic aneurisms amenable to operative treatment those that can be diagnosed as arising to the right of this line must be treated by tying the right vessels, those on the left by deligation of the left carotid. The author said that the ligature used had been the subject of much care and experiment. Catgut had been shown to be unreliable for tying vessels in continuity. It did not appear that this depended on the method or period of soaking in carbolised oil. He attributed its defects to the method of manufacturing the catgut itself. Putrefaction in water entered largely into this process. Different parts would have suffered in various degrees from putrefaction. But more objectionable even than this was the shape of the ligature, for it was difficult, perhaps impossible, to avoid dividing the inner coats of vessels tied with a round cord. This division of vascular coats exposed patients to the dangers of secondary hæmorrhage, which had been the cause of death in almost every case hitherto recorded of tying the innominate or first part of the subclavian. An organisable ligature, which, being flat, did not divide the arterial coats, ought to secure surgery against this danger. After many experiments, the author hit on the idea of using the middle coat of the aorta of the ox, which, when quite fresh, is to be prepared by separating it from the outer coat, and by cutting it spirally, thus making long, flat, tape-like ligatures, which are dried under suspension by a weight to remove superabundant elasticity; just before use they are moistened to restore entire flexibility. Before attempting operative surgery with this material, it was tested experimentally in various ways, and in the case recorded its action left nothing to be desired. If, said Mr. Barwell, the anatomical and physiological views propounded in the first part of this paper are correct, a precision as yet wanting will have been given to our operative procedures in cases of aneurism; while by the new ligature a degree of safety hitherto unattained will have been imparted to the operations themselves.

The PRESIDENT said that the present case was peculiar, inasmuch as it involved a new principle in the surgical treatment of aneurism. It had hitherto been held necessary to retard or arrest, by means of compression or deligation, the circulation through the vessel and through the aneurism, so as to allow a deposit to take place in it. But in Mr. Barwell's case the two vessels tied were altogether beyond the seat of aneurism. One could understand, on ordinary principles, how the ligature of the subclavian and of the carotid would act on an innominate aneurism; but in the present case there was the whole length of the innominate artery and portion of the subclavian and carotid between the site of operation and the aorta. It appeared, however, that benefit had followed the operation, although the time was too short for any definite opinion to be yet formed as to the result. It would at first be supposed that the ligature of the two vessels would increase the current through the aorta, rather than arrest or diminish it. The operation of ligature of the left carotid artery, for the relief of aortic aneurism, had been fairly successful in the cases in which it had been performed; but he thought that it had yet to be ascertained whether the pathological occlusion of that vessel was not the result of commencing consolidation in the aneurism of the aorta, rather than the cause of consolidation, as had been supposed. In any case, he thought that surgeons should be very cautious in treating aortic aneurism by deligation of the large vessels. He had seen two cases in which the operation was fatal. In aortic aneurism there often was disease of the heart, and more extensive disease in the aorta than was supposed. Moreover, the extreme difficulty of diagnosis in such cases must be considered. Another point of importance was that the apparent success of operation should not lead to the neglect of the medical treatment of aortic aneurism; for life might at least be greatly prolonged by a careful medical and dietetic treatment. The kind of ligature used by Mr. Barwell was a most ingenious application of animal tissue to the purpose, and deserved further trial.

Dr. GREEN said that there was no doubt of the existence of aneurism of the aorta, and possibly also of the innominate artery, in the case under consideration. The patient was kept perfectly quiet, and had a restricted diet and iodide of potassium; but the aneurism continued to increase. He had been much surprised to see the amount of relief a few days after the operation. He thought that the aneurism would again increase.

Mr. HOLMES agreed with the President as to the difficulty of diagnosis in such cases, and as to the inadvisability of even thinking of such a radical measure as ligature until an attempt had been made to treat the case medically. But he was quite convinced that there were cases in which operation might do much good—as was proved in a case of his own, in which the patient, who was in a desperate condition when he operated on her four years ago, was now in fairly good health, and able to earn her living by light work. He had, however, not a very clear idea as to what part of the aorta was involved; it was much easier to mark out the different portions of the aortic arch on the diagram-board than in the living subject. In Mr. Barwell's case the diagnosis was aided by the indications of pressure on the right bronchus; but in ordinary cases it was not so clear. He believed that an important guide as to the necessity for operating was afforded by the extent to which the aneurism encroached on the air-passages. When these were not much interfered with, and dyspnœa was not urgent, he would advise delay. He believed that in most cases of double distal ligature of the vessels in the neck the benefit was chiefly derived from the coagulum formed in the carotid artery. He would give a trial to the material used for ligature by Mr. Barwell; it seemed well adapted for the purpose intended, which was the same as that which John Hunter had in view when he first tied the femoral artery. If the ligature could remain for a long time without absorption, no surgeon would think it

necessary to divide the inner coats of the artery. He thought it advisable to divide the internal and middle coats when he used catgut, because he did not know what might become of the ligature.

Mr. SPENCER WATSON mentioned a case in which he tied the external iliac artery for femoral aneurism; he used carbolised catgut, and did not divide the inner coats. The result was very satisfactory. Catgut, however, was an unreliable material; and the ligature described by Mr. Barwell was likely to be very useful.

Mr. BARWELL having replied, the meeting adjourned.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 29:—

Cree, Edward Russell, St. John's-park, Highgate.
Culling, John Chialet, 24, Percy-crescent, W.C.
Higson, James, Holly Mount, Blackburn.
Pierson, Alfred Henry, Lee, Kent.
Smith, John, Plumstead.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Hamilton, Henry Thomas, Charing-cross Hospital.
Leech, Henry Richard, Queen's Hospital, Birmingham.
Luscombe, Thomas Benjamin, Guy's Hospital.

NAVAL, MILITARY, &c., APPOINTMENTS.

MILITIA MEDICAL DEPARTMENT.—Surgeon J. Mumford Percival to be Surgeon-Major.

BIRTHS.

BEVERIDGE.—On May 27, at Dart Villa, Totnes, the wife of H. T. S. Beveridge, M.D. Edin., Staff-Surgeon R.N., of a son.

BROMLEY.—On May 24, at Castle Hedingham, Essex, the wife of John Bourne Bromley, M.R.C.S., of a son.

COGHILL.—On May 8, at The Castle, Candy, Ceylon, the wife of J. D. M. Coghill, M.D., Medical Inspector of the Coffee Districts, of a son.

FAWCETT.—On May 29, at Coventry, the wife of Surgeon W. J. Fawcett, M.B., A.M.D., of a son.

HENDERSON.—On May 31, at Coney Park, Bridge of Allan, N.B., the wife of Surgeon-Major George Henderson, M.D., Civil Surgeon, Rawul Pindee, Punjaub, India, of a daughter.

HUTCHINGS.—On May 31, at Southborough, Tunbridge Wells, the wife of Edward J. Hutchings, M.R.C.S.E., of a son.

WOODFALL.—On May 26, at 30, Chepstow-place, W., the wife of Surgeon-Major S. P. Woodfall, M.R.C.S. Eng., of a son.

MARRIAGES.

ALEXANDER—GREENWOOD.—On May 29, at Cragg Vale, Reginald G. Alexander, M.A., M.B., son of William Alexander, M.D., of Halifax, to Alicia Mary, only surviving daughter of the late John Greenwood, Esq., of Castle Hall, near Mytholmroyd.

ANDREWS—LEMARCHAND.—On April 17, at Melbourne, Arthur Andrews, M.R.C.S. Eng., of Albury, New South Wales, to Caroline Mary, second daughter of Lieut-Col. Lemarchand, late Royal Bengal Artillery.

CONCANNON—JENKINS.—On March 22, at Nepean Towers, W. A. Concannon, L.K.Q.C.P.I., of Dalby, Queensland, to Libette Lloyd, second daughter of R. L. Jenkins, Esq., J.P.

DRUMMOND—MAY.—On May 27, at Dronfield, Edward Drummond, M.D., of Sidmouth, Devon, to Rosina, second daughter of Henry May, M.R.C.S. Eng., of Cliff House, Dronfield.

FOOT—NAPIER.—On June 3, at Holkham Church, Norfolk, Robert H. Foot, M.D., son of William Foot, Esq., of Dublin, to Helen, daughter of Alexander Napier, vicar of Holkham.

OAKLEY—GRIFFITH.—On April 13, at Montreal, Canada, William Donald Oakley, M.D., to Mary Sophia, second daughter of the Hon. William Brandford Griffith, C.M.G., Member of the Legislative Council of Barbadoes, W.I.

DEATHS.

BIDDLE, THOMAS JAMES, M.R.C.S., L.S.A., at Yately, Hampshire, on May 17, aged 45.

GROSVENOR, BEATRICE MAY CATHERINE, youngest daughter of George Fox Grosvenor, M.D., of 121, Ladbroke-grove, W., on May 26, aged nearly 9 months.

HIRD, JAMES, M.R.C.S.E., F.S.A., at Bramshott, Hants, on May 20, aged 86.

HOOPER, GEORGE STMES, M.D., suddenly at 19, Midvale-road, Jersey, on May 28, in his 80th year.

KILBOY, ALEXANDER ROBERT, M.R.C.S. Eng., Surgeon-Major, Royal Artillery, at Naini Tal, on May 2, aged 45.

MEDD, JOHN, M.D., of Wynnstay House, Southport, at Shrewsbury, on May 30, aged 43.

WILKS, GEORGE FREDERICK, M.R.C.S.E., at Ashford, Kent, on June 3, aged 66.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, LONDON, W.C.—Junior House-Surgeon. Applications, with testimonials, to be sent in on or before June 11. Candidates must be unmarried and possess a legal qualification to practise.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, LOWER SEYMOUR-STREET, PORTMAN-SQUARE, W.—Physician, Out-Patient's Department. Candidates must be graduates of a British university, or, if graduates of a foreign university, Members of the Royal College of Physicians of England, duly registered, and not practising pharmacy. Applications, with testimonials, to the Secretary, on or before June 23.

SURREY DISPENSARY, GREAT DOVER-STREET, S.E.—Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of England, and registered; they must attend at the Dispensary on Tuesday, June 24, at 6 p.m., and produce their testimonials and other necessary qualifications.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

Stamford Union.—Mr. J. Kelly has resigned the West Deeping District; area 8275; population 1297; salary £25 per annum.

APPOINTMENTS.

Abergavenny Union.—Martin Quirk, M.D., C.M. Queen's Univ. Ire., to the Abergavenny District.

Battle Union.—Frederick H. Corbyn, M.R.C.S. Eng., L.R.C.P. Edin., to the Fifth District.

Bedminster Union.—Joseph Fuller, L.R.C.S. Ire., L.K. & Q.C.P. Ire., to the Third District.

COLLEGIATE LECTURES.—Mr. B. Thompson Lowne, F.R.C.S., who commenced his course of lectures on the Physiology of Sensation, in the theatre of the Royal College of Surgeons, on Wednesday last, will deliver his last lecture on the 8th inst., when he will be succeeded by Professor Hutchinson, who will deliver six lectures on "The Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints." The lectures are delivered at four o'clock on Mondays, Wednesdays, and Fridays.

DEATH OF DR. HAYS.—Dr. Isaac Hays died in Philadelphia on Monday morning. He has long been known to the profession as the editor of the *American Journal of the Medical Sciences*, with which he has been connected from its commencement in 1827. He has not been in practice for many years, but in early life was an ophthalmologist. He succeeded in attaining the goal to which every editor aspires—namely, the production of the best medical journal on this continent.—*Boston Med. Journal*, April 17.

CAUTION AS TO PARACENTESIS IN OLD PLEURITIC EFFUSION.—Prof. Da Costa observes (1) that in chronic pleurisy we should be guided rather by the effects of an effusion than by the time it had lasted; (2) the value of Basham's mixture and repeated counter-irritation in the treatment of chronic pleurisy; and (3) the possibility of tuberculous disease of the lung as a co-existent factor is always an additional reason for not tapping, since surgical interference should never be attempted when this complication exists.—*New York Med. Record*, March 29.

EARLY ALBUMINURIA IN TYPHOID FEVER.—Prof. Da Costa, in reference to a case of typhoid in the Pennsylvania Hospital, observed that he wished to lay great stress upon the presence of albumen in the urine upon the eighth day of the disease. This might arise from pre-existing disease of the kidneys, or the typhoid itself may have given rise to this disease. If the latter were the true cause, the case became a grave one, for albuminuria as a symptom never occurs in the course of typhoid fever unless the case is to be a very grave one. Albumen is quite commonly found in the urine in the third week of the disease. In this case, too, there was between January 27 and February 1 never a difference of more than one degree between morning and evening temperatures; and slight difference between these temperatures so early in the attack is another bad sign. Moreover, the first sound of the heart was very feeble, and accompanied with flushing of the face (without disease of the lungs) and throbbing of the vessels in the neck; and when this occurs early it should be a warning. Prof. Da Costa added that this fact had struck him many years ago, so that on entering a sick-room and finding these coincident symptoms, he had been accustomed to make a rough diagnosis of typhoid fever at once, without any further examination.—*New York Med. Record*, March 29.

INTERMITTENT ANOSMIA.—M. Maurice Raynaud related the following case at the Société des Hopitaux:—He had attended for several months, for commencing tuberculosis, a woman, thirty-eight years of age, in whom an absolute suspension of the power of smell manifested itself in an intermittent manner. When she got up in the morning she found that she was totally unable to smell the scented waters of her dressing-table; but about ten o'clock the function was restored, to disappear again towards dinner-time. These phenomena had continued for two months, with absolutely regular intermittence. From ten until four o'clock the patient possessed smell and taste in their normal conditions, while for the rest of the time the two senses were quite lost to her. She never had had any hysterical symptom, and could not be suspected of simulation; and M. Raynaud, conjecturing that he had to do with a latent intermittent paludal affection, administered quinine, under which the peculiarity entirely disappeared. The patient, however, had not been exposed to palustral emanations, nor was her spleen enlarged.—*Gas. des Hop.*, May 27.

OBJECTIVE SOUNDS IN THE EARS.—Dr. Holmes has recently reported to the Chicago Medical Society a curious case of objective sounds in the ears. The patient is a girl of seventeen, and the trouble has continued since childhood—during all her waking hours. The sounds accompany spasmodic contractions of the pharyngeal muscles. About forty of these occur with regularity every minute. They resemble slight efforts at swallowing. With each spasm is heard within the ear a clicking sound, being loudest in the left. The sound resembles the rubbing of the nails of a thumb and finger. From the left ear it can be heard eighteen inches away; from the open mouth it can be perceived, but it seems more distant. The lips of the Eustachian tubes open slightly with each spasm. The membranæ tympani are thick and opaque at the upper border. It is Dr. Holmes's opinion that the sounds are due to spasms of the tensor tympani muscles. The girl is anæmic, but the local trouble has not been helped by tonics.—*Boston Med. Jour.*, May 1.

BANDAGING IN MIGRAINE.—Dr. Weir Mitchell, relating a case of migraine occurring in a girl seven years and a half old, exhibiting the congestive type, and for which he prescribed small doses of bromide (gr. iij.) and tinct. belladonnæ (gtt. iij.), observes that the use of the old domestic remedy, a tight bandage, during the attack is useful. He employs a rubber bandage, applied thoroughly from the eyes up, with a thin pad over each temporal artery, if the temporal ridge be sharp enough to keep the bandage from squeezing the arteries, and over the two occipital vessels. Instead of caoutchouc, a well-applied muslin bandage may be put on, and then wetted, using compresses over the temporal arteries. The comfort thus given is sometimes surprising. He adds, "I need not say that migraine in some of its forms becomes at times—and especially in women—a most disabling malady, and may recur daily until life is a burden impatiently borne. These are usually cases of thin-blooded and thin people, whose sufferings are brought back by the attempt to take exercise, without an abundance of which a return to health is out of the question. I have seen some such cases in which a cure little less than marvellous has been made by the use of absolute rest, over-feeding, and massage. There is, of course, much more to be said on the therapeutics of megrims, but no one drug is its master. The hint as to thorough bandaging is worth remembering, and especially at the close of a headache."—*Boston Med. Journal*, March 27.

GIANTS AND DWARFS.—Many of our readers must recollect the American giants who exhibited themselves in London a few years since—viz., Annie Swan, of Nova Scotia, seven feet nine inches in height, and Captain Bates, of Kentucky, seven feet seven inches high. This lofty couple was married, and Dr. Beach (*New York Medical Record*, March 22) furnishes an account of the giant baby which has resulted from the second pregnancy—it being, he believes, the largest new-born infant on record. It weighed twenty-three and three-quarters pounds, and was thirty inches in height. The breast measured twenty-four inches, the breech twenty-seven, the head nineteen, and the foot five inches and a half in length. The secundines weighed ten pounds. Six years previously, Mrs. Bates had been delivered in London of a dead child weighing eighteen pounds, and which was twenty-four inches in height. The *Boston Medical Journal* of March 27 announces the death of the "Mormon Giant Girl," who formerly travelled with Barnum. Although only eighteen years of age, she weighed 516 pounds, and her coffin was six feet six inches in length and two feet in width. According to the same journal, a number of physicians were invited to make an examination of the two remarkable dwarfs known as "The Midgetts." They are about twenty-two inches in height, and the weight of the boy (who is said to be fourteen years of age) is nine pounds; while the girl, who is fifteen, with the long train and other appurtenances of a lady of fashion, or rather of a modern French doll, actually weighs only four pounds and three-quarters. The diameters of the boy's head are scarcely larger than those of the average new-born infant, and those of the girl are even smaller. The girl is beginning to show signs of puberty, but has not menstruated as yet. Her parents state that when she was born she weighed only three-quarters of a pound, and was but nine inches in height.

ROYAL COLLEGE OF SURGEONS.—At the pass examination for the fellowship of this institution, which was brought to a close on Saturday last, nine candidates out of the twelve examined were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and were accordingly recommended to the Council to have the diploma of fellowship conferred on them. The following were the questions on Pathology, Therapeutics, and Surgery submitted to the candidates at the written examination on the 29th ult., when they were required to answer all four questions between 1.30 and 5.30:—1. Give the clinical history and pathology of the diseases of the larynx which give rise to difficulty of breathing. What surgical means are indicated in the various conditions? 2. What are the post-mortem appearances you may expect to find in a case of traumatic pyæmia? Explain their origin, and the symptoms attending their development. 3. Describe the condition generally known as concussion of the spine. Give your views as to the pathology of these cases; trace their usual progress, and state the main circumstances to which attention should be given in their diagnosis and prognosis. 4. State the probable consequences of a penetrating wound of the lung, inflicted (1) by a bullet, (2) by a sharp instrument. How would you treat such a case in its different stages? On the following day they underwent a written and oral clinical examination on patients selected from the London hospitals, some of which were of great interest—as diseased cervical vertebræ, cirsoid aneurism, facial paralysis, aneurismal dilatations of the palmar arteries, unreduced dislocation of the femur, ulceration of the face, diseased ankle-joint and cleft palate, anchylosis of lower jaw, diseased elbow-joint, diseased lower end of the femur, perineal and urethral fistulæ, etc. On Saturday, the concluding day, they had operations on the dead body and examination on preparations selected from the Museum.

SUNSTROKE IN ST. LOUIS.—Dr. Kennard, in a carefully written article in the *New Orleans Med. Journal*, October, 1878, gives the statistics, as far as attainable, of the large number of cases of sunstroke (3000 or more) at St. Louis last summer. The population of the city is stated at 505,000 at the lowest estimate, and its area at sixty-two square miles. From July 10 to 20 the thermometer ranged between 83° Fahr. and 100° Fahr., and during these ten days there were 154 deaths from sunstroke—one-third of the total mortality of the city,—besides fifty deaths from cholera infantum, seventeen from apoplexy, forty from convulsions, and thirty-four from other diseases of the brain and nervous system, many of which were attributable to heat. One hundred and twelve cases were treated at the City Hospital, of whom only nine died. Dr. Kennard attributes the phenomena of sunstroke to excessive heating of the blood due to the loss of function in the heat-regulating nervous centres in the upper portion of the spinal column. According to his thermometrical observations, the temperature ranged from 108° to 110° Fahr., and the chief characteristics after death were great congestion and œdema of the lungs, peculiar fluidity of the blood, and generally anæmia, not hyperæmia, of the brain, with engorgement of the right side of the heart. From these appearances Dr. Kennard concludes that death takes place from true paralysis of the heart, dependent upon derangement of the nervous centres. The treatment was directed to lowering the temperature of the blood by the application of ice to the head, the nape, and the spine, and,

if necessary, to the whole body, supplemented by the use of the cold douche from the height of three or four feet, fanning, etc. Drachm doses of aromatic spirits of ammonia and stimulants were given as soon as the patient could swallow, and sedatives when required. Bromide of potassium in large doses was found to act as a prompt diuretic. The convulsive cases were not benefited by cold affusion, and some cases needed warm applications and hot mustard baths. After the danger is over, a cathartic and twenty grains of quinine are recommended.—*Boston Med. Journal*, April 3.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

THE CASE OF THOMAS MILLERCHIP.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is a general consensus of opinion among members of the profession I have met and corresponded with, that a most cruel act of injustice was perpetrated in the sentencing this diseased and unfortunate man to imprisonment and hard labour. The General Medical Council marked their sense of the procedure by deciding to retain his name on the Register, although under Lord Justice Coleridge's ruling he was found guilty of manslaughter. His term of imprisonment is drawing to a close, but he will want help to make a fresh start in life. If any gentleman will kindly send me a subscription I will take care that it shall be utilised for his benefit. Dr. Vacher, of Birkenhead, has already promised £2 2s.

I am, &c.,

38, Dean-street, Soho-street, W., June 4. JOSEPH ROGERS.

"*Reciprocity.*"—The Canton Vaud Local Government have decided that only natives of countries where Swiss physicians, as such, are permitted to practise shall in future be suffered to follow their profession in the canton.

A Gipsy Encampment Suppressed.—The authorities of the parish of Lambeth have at last appealed to the law against the owner of land near the Crystal Palace for allowing a gipsy encampment to be formed on it without providing requisite sanitary arrangements. A great nuisance had, it appears, been caused in consequence. The encampment has been broken up, and the defendant has undertaken not to let his land for such a purpose again. The magistrate issued an order of prohibition, and warned the defendant of the consequences of any repetition of the offence.

Theatres, etc., and the New Metropolitan Regulations.—The regulations recently issued by the Metropolitan Board of Works for the better construction of theatres, music-halls, etc., and other like places of resort, for the protection of the public, comprise seventeen clauses, and appear to meet the required improvements and alterations for the public safety and comfort. Sanitary details have also been dealt with. As regards warming—by no means an unimportant sanitary question,—hot water only, at low pressure, is to be used where artificial heating is employed. If these regulations are enforced, a vast beneficial change in buildings of this class will no doubt be effected.

Doctors making Wills.—The Probate Court, last week, had the will and codicil of the late Dr. Guin before it for examination, though not the subject of contentious proceedings. Both papers were in the handwriting of the deceased. It appeared that Dr. Guin, in conjunction with his friend Dr. Sherlock (who appeared as an executor to prove the will in solemn form), by their united efforts succeeded in producing a testamentary document far from satisfactory; and that after the will had been executed, an alteration or erasure had been made of the attestation clause, of an irregular character and almost endangering the validity of the document under the Act of Parliament relating to the signature of testators and attesting witnesses. Sir James Hannen said he had come unhesitatingly to the conclusion that the codicil was squeezed in after the attesting witnesses had signed the will. It must, therefore, be excluded from the probate, and that part of the will apparently erased must be restored. He expressed surprise that two gentlemen of such eminence in their profession should together have succeeded in producing so faulty a document, facetiously adding, that if solicitors attempted to prescribe for physicians' patients the result attained would probably be a failure to produce the desired effect similar to that in the present case.

East London Hospital for Children.—The report presented at the annual meeting of the governors, just held, showed that the number of patients treated during the year was 8163, making a total of 76,715 since the opening of the Hospital at Ratcliff Cross in 1868. The gratifying fact was announced that the receipts had increased during the year, especially from annual subscriptions. More accommodation for the resident staff had become a necessity, to provide for which a considerable sum would be required. The maintenance of the institution involved a yearly expenditure of £5000. The receipts were £7728, being £1659 in excess of those of last year, and the disbursements £6298, showing a decrease on the previous year's expenditure of £1147. The cost per bed had thus been reduced to £55 11s.

A New Fellow.—Certainly you will have the same opportunity of recording your vote at the annual election of Fellows into the Council of the College of Surgeons as your seniors; and we have no doubt you will receive the usual notice from the Secretary, immediately after the meeting of the Council at which, having just passed the examination, you will be recommended by the Court of Examiners. You will receive in due course a list of the candidates.

Collegiate Election.—Those Fellows of the Royal College of Surgeons who have not received the annual notice of election into the Council should address themselves at once to the Secretary of the College, by whom the notices were sent off on Friday last to every Fellow resident in the United Kingdom whose address is known to him.

Dr. Campbell.—Your friend, so long elected a Fellow of the College, will *not* be allowed to record his vote until he has signed the by-laws of the College; and we are informed that Thursday next will be the last meeting of the Council for that purpose before the annual meeting in July.

A Provincial Fellow.—A rumour reached us that a provincial candidate would be brought forward, but we have not heard that such is the case, and Monday next will be the last day for nominating candidates. The following members of the Council are resident in the country:—Mr. Hancock, Andover; Mr. Clark, St. Leonards-on-Sea; Dr. Humphry, Cambridge; Mr. Baker, Birmingham; Mr. Wheelhouse, Leeds; and Mr. Lund, Manchester—just a fourth of the Council, and perhaps sufficient.

Drowning Casualties and the Police.—There have been lately an unusual number of suicides at Birmingham, and in a recent case it transpired at the inquest that the deceased came by his death from drowning, and the constable who took the body out of the water deposed that he had placed it "across the beam of a boat face downwards, and with the head slightly inclined." A juryman hereupon inquired whether any instructions were issued to the police as to the proper mode of dealing with persons in the condition of the deceased. The answer was to the effect that the police received instructions in connexion with the preservation of life generally, but not specifically for the restoration of apparently drowned persons. According to the medical evidence adduced, this want of knowledge may have contributed to the death of the deceased. "Placing the man on his stomach, as the policeman had done, would still further encumber the breathing apparatus, and assist suffocation." Some elementary instruction, which can be readily carried into practice in cases of apparently drowned persons, should be given to the police, and form an established regulation of the force.

Metropolitan Street Accidents.—The present insecurity of the streets of London has not too soon become a question engaging public attention. The return moved for by Lord Templemore in the House of Lords, and recently issued, exhibits an amount of casualty which is scarcely creditable to the street regulations of London, which are under the administration of the police force, who have power to deal with the traffic. The return comprises the whole of last year and a month of the present. The total number of casualties in the period was 3573; the number of people injured was 3961. Upwards of half of these were men; nearly one-fourth were boys; and women and girls made up the remaining fourth. Of the fatal accidents, 35 were men, 13 women, 45 boys, and 23 girls. Light carts and cabs seem to have been the vehicles by which the chief mischief was done, and five accidents were caused by bicycles. It is worthy of remark that in the year 1878 the fatal vehicle accidents in Paris were only thirty-two, as compared with 237 in London. For the prevention of these accidents a society has been organised in the City to prosecute offenders for furiously driving and other offences; and a meeting has subsequently been held at the Cosmopolitan Club, Charles-street, Berkeley-square, having for its object the establishment of a society for a similar purpose, and a resolution to that effect was unanimously adopted.

Ballast-burning.—At the Marylebone Police-court, a builder, of Kilburn, has been ordered to pay seven guineas and costs, and to obey the injunction of the Local Board, for burning blast in close proximity to dwelling houses, contrary to an order of the Willesden Local Board of Health. Medical evidence was adduced to the effect that the practice was injurious to health.

Tea-Houses in Russia.—The tea sold in the Russian tea-houses is very good, and Russians drink considerable quantities of it: three or four pints with a proportionate quantity of vodki will not seem an excessive evening's allowance for a sober man. Coffee is never asked for. In the lower kinds of houses the tea is said to be a re-brew from the leaves that have been used by larger establishments, and here it is customary to serve the tea ready flavoured with vodki. It makes a potent beverage which will send a glow all over the body of an isvostchik (cabman) in cold weather, and make him drive his sleigh or droschki in a wild and dangerous way.

Juvenile Sympathy.—It is suggested that young persons visiting the seaside should collect shells and send them to a Sea-Shell Mission for the benefit of sick children in London homes and hospitals. The Mission has been established to distribute boxes of shells to the suffering children. Parcels of shells may be sent to the Mission, at 82, Fentiman-road, Clapham-road. It is proposed to put the shells in little boxes holding about 200, having the name of each child on a card.

COMMUNICATIONS have been received from—

Mr. John Chatto, London; Mr. D. Colquhoun, London; Mr. B. R. Wheatley, London; Mr. E. L. Hussey, Oxford; Mr. Jonathan Hutchinson, London; Mr. T. M. Stone, London; Dr G. W. Gay, Boston, U.S.A.; Mr. J. G. Fitch, London; The Secretary of the Royal Institution; Dr. H. E. Armstrong, Durham University; The Registrar of Apothecaries' Hall, London; Mr. Bartleet, Birmingham; Messrs. Dodd and Co., London; Dr. R. B. Taylor, Santillana; Dr. Lucas, Agra; Dr. J. W. Moore, Dublin; Dr. Joseph Rogers, London; Messrs. Walker and McLetchie, London; Mr. S. J. Hutchinson, London; Dr. Norman Kerr, London; Mr. Edward Bellamy, London; The Registrar-General, Edinburgh; Mr. F. Petrie, London.

BOOKS AND PAMPHLETS RECEIVED—

Reginald E. Thompson, M.D., Cantab., The Causes and Results of Pulmonary Hæmorrhage—E. Klein, M.D., F.R.S., and E. Noble Smith, L.R.C.P., M.R.C.S., Atlas of Histology, part iv.—The Ethics of Urban Leaseholds—Rivista Sperimentale di Freniatria e di Medicina Legale—A. D. Rockwell, A.M., M.D., Lectures on Electricity in its Relations to Medicine and Surgery—Louis A. Duhring, M.D., Atlas of Skin Diseases, part v.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—El Siglo Medico—Sunday at Home—Leisure Hour—Boy's Own Paper—Obstetrical Journal—Social Notes—Glasgow Medical Journal—Vaccination Inquirer—Archives Générales de Médecine—Transactions of the Odontological Society—Veterinarian—Journal des Sciences Médicales de Lille—Analyst—Edinburgh Medical Journal.

APPOINTMENTS FOR THE WEEK.

June 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. H. Morley, "On Swift."

9. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Odontological Society, 8 p.m. Mr. A. S. Underwood, "On the Functions of the Nerves of Taste." Casual Communications, &c.

Royal College of Surgeons of England, 4 p.m. Mr. Benjamin Thompson Lowne, "On the Physiology of Sensation."

10. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Karl Hillebrand, "On the Intellectual Movement of Germany from the Middle of the Last to the Middle of the Present Century."

Royal Medical and Chirurgical Society (Ballot, 8 p.m.), 8½ p.m. Dr. Gowers, "On the Movements of the Eyelids." Dr. Garlick, "On the Ophthalmoscopic Appearances in the Tubercular Meningitis of Children." Mr. Sampson Gamgee, "Case of Abscess of the Brain." Mr. John Gay, "Removal of Cancerous Stricture of the Rectum." Mr. Howse will present two patients after Recovery from Gastrotomy.

11. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Royal College of Surgeons of England, 4 p.m. Prof. Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

12. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

Royal Institution, 3 p.m. Prof. Karl Hillebrand, "On the Intellectual Movement of Germany from the Middle of the Last to the Middle of the Present Century."

13. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Quekett Microscopical Club (University College), 8 p.m. Meeting.

Royal College of Surgeons of England, 3 p.m. Prof. Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

Royal Institution (Weekly Meeting, 8 p.m.), 9 p.m. Mr. Frederick J. Bramwell, "On the *Thunderer* Gun Explosion."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 31, 1879.

BIRTHS.

Births of Boys, 1176; Girls, 1196; Total, 2372.
Average of 10 corresponding years 1869-78, 2227·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	758	669	1427
Average of the ten years 1869-78	689·5	638·8	1328·3
Average corrected to increased population ...	...	...	1421
Deaths of people aged 80 and upwards ...	...	...	51

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	2	15	3	1	6	...	...	...	3
North ...	751729	2	16	9	2	15	...	2	1	...
Central ...	334369	...	10	4	1	3	...	1	...	...
East	639111	..	16	3	1	10	...	2	1	2
South	967692	4	23	18	2	18	2	3	...	5
Total	3254260	8	80	37	7	52	2	8	2	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·549 in.
Mean temperature	51·7°
Highest point of thermometer	63·5°
Lowest point of thermometer	40·6°
Mean dew-point temperature	46·2°
General direction of wind	Variable.
Whole amount of rain in the week	2·22 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 31, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending May 31.	Deaths Registered during the week ending May 31.	Temperature of Air (Fahr.): Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.): Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620888	48·0	2372	1427	63·5	40·6	51·7	10·95	2·22	5·64
Brighton	105608	44·9	55	30	64·7	42·4	52·7	11·50	1·49	3·78
Portsmouth ...	131821	29·4	75	41	...	...	...	...	...	...
Norwich	85222	11·4	51	37	64·5	43·0	52·0	11·11	0·30	0·76
Plymouth	74293	53·3	39	22	60·5	44·5	50·5	10·28	0·49	1·24
Bristol	209947	47·2	143	68	63·9	42·4	51·3	10·73	1·88	4·78
Wolverhampton ...	75100	22·1	51	25	64·6	40·5	48·4	9·11	1·13	2·87
Birmingham ...	388884	46·3	310	140	...	...	...	...	...	...
Leicester	125622	39·8	77	38	...	...	...	...	...	...
Nottingham ...	169396	17·0	111	72	71·8	40·8	50·6	10·34	0·76	1·93
Liverpool	538335	103·3	338	233	60·6	43·3	49·6	9·78	0·85	2·16
Manchester ...	361819	84·3	257	169	...	...	...	...	...	...
Salford	177849	34·4	150	64	...	...	...	...	...	...
Oldham	111318	23·9	40	53	...	...	...	...	...	...
Bradford	191046	26·5	120	85	62·4	36·9	49·7	9·83	0·54	1·37
Leeds	311880	14·5	201	105	62·0	40·0	50·5	10·28	0·39	1·50
Sheffield	237138	15·1	172	96	64·0	42·3	49·4	9·66	1·06	2·69
Hull	146347	40·3	104	68	...	...	...	...	...	...
Sunderland ...	114575	41·4	107	50	68·0	42·0	49·8	9·89	0·26	0·66
Newcastle-on-Tyne	146948	27·4	108	78	...	...	...	...	...	...
Edinburgh	226075	53·9	143	108	57·8	37·0	47·3	8·50	0·83	2·11
Glasgow	578158	95·8	419	252	62·7	40·5	50·0	10·00	0·89	2·26
Dublin	314686	31·3	164	309	66·9	35·0	50·4	10·22	0·90	2·29
Total of 23 Towns in United Kingdom	8502896	38·6	5517	3572	71·8	35·0	50·3	10·17	0·95	2·41

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·55 in. The highest reading was 29·87 in. at the beginning of the week, and the lowest 29·40 in. on Tuesday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACTS OF CLINICAL LECTURES

ON ABSCESS IN SPECIAL REGIONS AS DETERMINED BY FASCIÆ.

By EDWARD BELLAMY, F.R.C.S.,
Surgeon to, and Lecturer on Anatomy at, Charing-cross Hospital, and to the Science and Art Department.

No. II.—The Abdomen and Pelvis.

The anatomical distribution of abscess in the abdominal parietes, the abdominal cavity, the pelvic parietes, and the pelvic cavity, is, as far as aponeuroses may affect it, more definite, and to be more surely referred to these envelopes than in perhaps any other part of the body, more especially when these fasciæ have attained the development we find in the pelvis. But here let it be understood I do not consider the so-called fascia superficialis or the cellular membrane existing between the abdominal muscles or the fascia propria in the light of fasciæ at all; they can only be regarded as bursal, and they favour and foster the products of inflammation rather than arrest them, and, as far as I know, have little to do with their direction. These cellular membranes are very different in structure from the tough, fibrous resisting aponeuroses, which have such a marked influence on the passage of pus, and they give way readily. Acute abscesses, wherever situate, are not always so governed by fascial envelopes as are those known as "cold" or congestive abscesses, and which are dependent upon some disease connected with the osseous system of (in this instance) the dorsal or lumbar region, the result of some lesion of the iliac crest or of the bony walls of the iliac fossæ. I propose to illustrate the subject by reference to certain cases which have come under my care during the last few months, and we may tabulate such abscesses for our examination as follows—an arrangement which, of course, is mechanical, and based upon the normal topographical distribution of these fascial envelopes.

Anatomically speaking, then, we may consider the distribution of abscesses of the abdomen and pelvis under four distinct headings, referable to their directing envelopes—

1. Abscess superficial to the aponeurosis of the external layer of muscles and their own investing sheaths.
2. Abscess limited by the muscular aponeurosis, and which may become developed into lumbar, iliac, psoas, pelvic, etc.
3. Abscess in the interspace between the peritoneum and the internal lamina of the abdominal aponeurosis, and which we may call *para*-peritoneal, consisting of præ-peritoneal and retro-peritoneal.
4. Abscess within the peritoneal cavity itself.

Pathologically, however, many of these conditions lead the one to the other, it may be rapidly, it may be slowly, or they may co-exist.

With regard, first, to abscess existing in the tissues immediately superjacent to the external abdominal muscles, owing to the continuation of the superficial fascia, so-called, over the entire trunk and limbs, I have no remarks of any importance to make as to the passage of pus; the membrane is so thin that it affords no obstacle excepting where its deep aspect is attached along Poupart's ligament. Here it might arrest pus, and direct it downwards into the scrotum or labium. There is a tendency of this cellular membrane to a slight attachment along the anterior and posterior median furrows, and I pointed this out to you some time ago in a case of diffuse suppuration from carbuncle in the back, where the membrane certainly formed a barrier to the passage of the pus to the opposite side. Fluctuation is soon detected, and readily comes to the surface.

In the second series we have those abscesses which are by far the more readily referable to anatomical data. In considering the direction likely to be taken by pus in such abscesses, we must regard the "muscular" aponeurosis as one vast system, and which may be conveniently traced from the mesial line of the body, fusing in the linea alba in front and attached to the several bony eminences posteriorly, affording an investment to the entire muscular system, of different densities, forming certain openings for the passage of bloodvessels and nerves, and possessing notable weak points, which all have their anatomical significance; and a correct knowledge of their position is rendered serviceable to the surgeon in diagnosis and treatment, and all of which are almost constant. I wish you to notice this, as, when we meet with collections of matter within these enveloping laminæ, entering into its formation, we find fewer deviations from what we might term a theoretical course than in any other region of the body.

I notice that, while great care has been taken in many of our text-books to explain the surgical anatomy of the posterior arrangement of these aponeuroses, but little has been bestowed on the anterior, at least as regards the direction of abscess, and needless complications have been insisted on, which are rather the results of dissection than of natural arrangement. But, before considering the course of such collections, let me remind you of a very important factor, or associated tissue, to these fibrous laminæ—I mean the so-called fascia propria, which is no *fascia* at all, but is really to the peritoneum and inner aspect of the abdomen and pelvis what the so-called fascia superficialis is to its underlying muscles and their fascial envelopes. This vast cellular zone is found everywhere encompassing the peritoneum, and is the seat of collections of matter dependent on many causes, and which I shall speak of further on. I need hardly now recapitulate the arrangement of the true fibrous aponeuroses of the abdomen, *ab initio*, but will endeavour in the cases I bring before you to apply what I have been in the habit of teaching in another theatre.

Let us first notice the condition known as "lumbar abscess." The passage of pus in this subdivision of abscess is governed by the lumbar aponeurosis, and by such laminæ of fasciæ as spring originally from it, and may extend anteriorly in the cellular interspaces between the abdominal muscles, or posteriorly between those of the lumbar muscles and their derivatives.

In all cases such abscesses point *above* the level of Poupart's ligament anteriorly, *above* the iliac crest laterally, and *above* the lumbo-sacral sulcus posteriorly, although of course they may perforate the parietal peritoneum. This, however, is rare.

I saw some time ago a gentleman who had had a blow on his lumbar spine, and some months afterwards a swelling occurred at the outer edge of the rectus muscle at the level of the fold of Douglas. This was a collection of pus which had probably originally formed in the anterior compartment of the lumbar aponeurosis, and which had gravitated forwards and downwards, directed by the fascia transversalis. This lamina of fascia transversalis separated the collection of pus from the space known as the cavum præperitoniale, the so-called fossa of Retzius, and which I shall direct your attention to more particularly in speaking of abscess within the abdominal parietes.

Notice that the pus cannot pass to the opposite side, owing to the central concurrence of all these fasciæ, and its passage forwards is easily explained if we regard the transversalis fasciæ and the intermuscular cellular laminæ as derivatives of the lumbar fascia anteriorly. Here the diagnosis of the locality of pus, whether in front of or behind the fascia transversalis, depended on the behaviour of the "respiration line," and the fact of it being confined to one side.

Abscesses developed in the posterior compartment of the lumbar aponeurosis may point anteriorly at first towards the peritoneal cavity, and subsequently make their way to the surface posteriorly. I saw some time ago a man who had a fluctuating tumour in the left lumbar region, which was to be felt by palpating the abdominal parietes, and which had lately increased so rapidly that it was supposed to be a malignant growth. I found out that fifteen years previously he had fallen off a ladder, and struck his lumbar spine, evidently somewhere in the neighbourhood of a transverse process. I carefully examined the region, and fancied I detected a little fluctuation at the edge of the quadratus lumborum, and which seemed to me to be associated with the tumour I could feel in the iliac region anteriorly. Satisfying myself it was fluid—probably an abscess,—I opened it antiseptically, evacuated an immense amount of pus, and a few days later, during the washing out of the pus cavity, a piece of necrosed bone—I imagine, the tip of a transverse process—came away. Now, the determining fasciæ in this instance, you remember, are attached to the tips of these processes; hence the collection of matter, invading, as I suppose, the entire mass of the quadratus, first bulged anteriorly and afterwards pointed externally.

It must be borne in mind that these conditions may be associated with a carious condition of the rib, as in the case (so diagnosed) of lumbar abscess on which you saw me make a post-mortem last Monday. Here the pus was limited posteriorly by the sheath of the sacro-lumbalis, and was gravitating downwards in the posterior compartment of the lumbar fascia, and the necrosed point of bone was at the angle of the eighth rib. The patient died of suppurative meningitis, the theca vertebralis and subarachnoid spaces being full of pus; but we could get no previous history as to accident.

(To be continued.)

LECTURES ON OPHTHALMOLOGY.

DELIVERED AT GUY'S HOSPITAL.

By CHARLES HIGGENS, F.R.C.S.E.,

Ophthalmic Assistant-Surgeon to the Hospital, and Lecturer on Ophthalmology in Guy's Hospital Medical School.

LECTURE VI.

DISEASES OF THE CORNEA.

Intolerance of Light (Photophobia).

Photophobia is a symptom which is so very constantly present in affections of the cornea, that I wish to impress upon your minds that whenever you meet with it you may be pretty certain that this structure is implicated. Upon theoretical grounds one might expect to find intolerance of light associated with retinal affections. Such, however, is not the case; so remember, *photophobia* means corneal disease.

Inflammation of the Cornea (Corneitis or Keratitis).

I think we may describe five different varieties of inflammation of the cornea—(1) simple corneitis, (2) interstitial or parenchymatous corneitis, (3) pustular corneitis, (4) keratitis punctata, (5) corneitis with sloughing or suppuration.

Symptoms.—Corneitis is characterised by watering of the eye, impairment of vision, *intolerance of light*, and pain, sometimes severe, at others insignificant. On examination we find injection of the ciliary region, more or less of the cornea cloudy or quite opaque, whilst bloodvessels may be seen in its substance or on its surface.

It is of importance that we should notice the course and position of the bloodvessels in any case where the cornea has become vascular. If the vessels lie altogether in the cornea, commencing near its margin and passing for a variable distance in its substance, the case is probably one of interstitial keratitis; but should the vessels be continuous with those of the conjunctiva, pass over the margin of the cornea, and lie superficially on its surface, the vascularity is probably due to mechanical irritation from granular lids or inverted lashes, and the condition known as *pannus* is present.

It is very necessary that the distinction between these two forms of vascularity should be made, as their treatment differs widely.

In the former case, the treatment of keratitis, to be presently described, should be adopted. In the latter, treatment must be directed against the cause of the vascularity (granular lids, etc.).

Simple corneitis may arise without apparent cause, or may be set up by injury, or the lodgment of foreign bodies upon the surface or in the substance of the cornea.

Some pain, intolerance of light, and watering of the eye will be present on examination. We shall find some part of the cornea occupied by a halo of dulness.

Interstitial or parenchymatous keratitis, keratitis, vascular corneitis, diffuse vascular corneitis, diffuse corneitis, corneo-iritis, syphilitic keratitis, are names applied to a form of inflammation of the cornea which, so far as I am aware, with few exceptions, occurs in persons who are affected by hereditary syphilis; it is often, but by no means invariably, associated with malformation of the teeth, the familiar notched incisors and pegged canines being frequently observed. A peculiar dome-shape of the first permanent molar is, however, as Mr. Moon has pointed out, more frequently met with in congenital syphilis than the other dental changes. I am in the habit of pointing to the first molar of the lower jaw as the test tooth: we often find it affected when the other teeth appear quite good; it is, moreover, very liable to caries, and is often so decayed as to retain but little of its original shape.

Besides the changes in the teeth, we frequently see the flattened nose, fissures about the angles of the mouth, or other manifestations of congenital syphilis.

Interstitial keratitis usually makes its appearance between the ages of five and eighteen, but we may meet with it in persons of thirty or more; it always attacks both eyes, as a rule, either simultaneously or at short intervals; but in persons who have reached twenty or more years, a period of six months or more may elapse before the second eye is attacked. The inflammation runs a very chronic course, and is most intractable, a severe attack often lasting eighteen months or longer. In the later stages of the disease many of the patients become partially or entirely deaf. Interstitial keratitis presents all the symptoms of inflammation of the cornea in a marked degree. The opacity is peculiar, and is caused by infiltration of the substance of the cornea by inflammatory material. At first the cornea becomes spotted in its centre, but the spots soon run together, forming a greyish haze; infiltration next commences at the upper and lower corneal margins, and gradually spreads until the whole structure resembles somewhat a piece of ground glass (in some, but not in all cases), apparently blood-stained in parts, from the development of innumerable minute bloodvessels. There is always a well-marked band of ciliary injection. Interstitial keratitis is not unfrequently complicated by iritis; hence the name "corneo-iritis."

The opacity, having reached a certain point, may remain stationary for months; but at length clearing commences, and the cornea regains more or less of its normal transparency, recovery always taking place to a much greater extent than would be at first expected. In some few cases, however, choroido-iritis is set up, the eyeball becomes soft, and eventually shrinks, all vision being extinguished.

Pustular Corneitis (phlyctenular or strumous corneitis, strumous ophthalmia, fascicular keratitis, corneal herpes) is met with in children and young adults. It often follows measles, scarlatina, or other acute diseases; it is frequently accompanied by eczematous eruptions on the eyelids, about the nostrils and angles of the mouth, and eczema capitis; the patients often present well-marked strumous diathesis, and are generally said to be delicate.

Symptoms.—In most cases there is profuse lachrymation, and great intolerance of light. The lids may be swollen and tightly screwed up, so as to cause the greatest difficulty in examination. There is more or less injection of the ciliary region (ciliary redness). Upon the surface of the cornea may be found—(1) small greyish elevations—phlyctenulæ; (2) phlyctenulæ in a state of suppuration—pustulæ; (3) small ulcers left on discharge of the contents of the latter. Any of these are usually found in greatest quantity round the margin of the cornea, but its whole surface may be found dotted over with phlyctenulæ, pustulæ, or ulcers—or examples of all three may be met with in the same eye. There will be more or less haziness and vascularity surrounding the affected portions of cornea. In some cases there is thick mucous or muco-purulent discharge, in addition to the lachrymation.

Cases of pustular corneitis, accompanied by great intolerance of light, much swelling of the eyelids, profuse lachrymation, and thick muco-purulent discharge, occurring in strumous children, are sometimes described as a separate disease under the name of "strumous ophthalmia."

Fascicular keratitis is the name applied to a somewhat rare form of the disease, characterised by the existence of small fasciculi of bloodvessels running from the margin to an opaque and somewhat swollen spot upon the surface of th cornea. The spots resemble phlyctenulæ, and appear to commence at the corneal margin, and subsequently to creep further and further on its surface, being followed by the fasciculus of bloodvessels. Pustular corneitis, like phlyctenular ophthalmia, is very liable to recur.

Keratitis punctata—aquo capsulitis, as it is sometimes called—occurs in young adults; never in children. It much resembles the early stages of interstitial keratitis. As a rule, however, one eye only is affected. We find the usual symptoms of corneitis; but the intolerance of light is not very severe. The cornea is dotted over with small greyish opacities, which are, however, collected most thickly about its centre, and on careful examination we can make out that they are situated close to the posterior surface of the cornea. The disease is most intractable, and is often associated with iritis; hence, like the interstitial keratitis, it

is sometimes called corneo-iritis; it is very probably of syphilitic origin.

Corneitis with Suppuration or Sloughing.—Suppurative keratitis is usually the result of sharp blows upon the cornea, as flicks from twigs, etc., or may be caused by the irritation of foreign bodies, as the hulls of corn; it may also occur after operations, more especially those for extraction of cataract.

The symptoms are those of corneitis, severe pain being often one of the most marked; some part of the cornea is found occupied by a collection of pus, part of which may have escaped into the anterior chamber, and collected at its lower part, giving rise to the condition known as "hypopyon"; or the pus may have gravitated down between the layers of the cornea to its lower margin, forming a collection much resembling hypopyon, and known as "onyx."

Instead of a collection of pus, some part of the cornea may be found occupied by a dead white slough or large ulcerated and sloughing area. The iris may also be inflamed and suppurating.

Suppurative corneitis is met with in cases of *neuro-paralytic ophthalmia*—a peculiar form of inflammation, associated with paralysis of the ophthalmic division of the fifth nerve, and consequent anæsthesia and impairment of nutrition of the parts supplied by it.

Treatment.

The treatment of corneitis should be both local and constitutional.

Local Treatment.—All foreign bodies or other sources of irritation should be removed. The eyes must be protected from light by a large shade, protector, or better still by a bandage. Sedative applications should be employed, none being better than belladonna lotion, containing from six to ten grains of extract of belladonna to the ounce of water; or, if preferred, a weak solution of atropine, one grain to a pint of water, may be used instead. The eyes should be bathed three or four times a day with either of these, and may be kept bound up with lint, wetted with one or the other.

If iritis exist, a stronger solution of atropine, half a grain to two or four grains to the ounce of water, should be dropped into the eye as often as may appear necessary.

In corneitis with suppuration, warm applications will be found most beneficial. The eye should be well bathed with warm belladonna lotion or decoction of poppies several times a day, and bound up firmly with lint soaked in the former. If pain be a prominent symptom, it may be greatly relieved by taking blood from the temples, either by the natural or artificial leech.

In cases where large collections of pus have formed in the substance of the cornea, the most effectual treatment is a free incision through the whole thickness and extent of the infiltrated tissue. The incision should be made by transfixing the cornea with a Gräfe's cataract-knife, and then cutting out through the centre of the collection of pus. The eye should be kept firmly bandaged after the operation.

In cases of corneitis—especially of the interstitial and pustular forms—should there be persistent intolerance of light which will not yield to ordinary treatment, an almost magical cure may be effected by placing a seton in each temple. The seton should consist of a double thread of stout silk, and should pass for about an inch and a half beneath the skin, being placed as much as possible amongst the hair, so as to avoid disfigurement from the resulting cicatrix.

In some cases we find that photophobia may be kept up by the pain and irritation of small fissures at the outer canthus, on dividing which with scissors the fissures will heal and the photophobia disappear.

In others the photophobia is kept up by mere wickedness on the part of the child, who persistently closes the eyes whenever any attempt at examination is made. In such cases a little moral treatment is called for.

The administration of chloroform is also said to exert a beneficial influence in some obstinate cases of photophobia. We should always examine the cornea carefully in every case of intolerance of light in children; the greatest difficulty is often experienced in so doing. We should sit down, get the nurse, sitting opposite, to hold the child's legs, body, and hands, fix its head between our knees, and gently open the eyes by pressing the upper lid upwards beneath the margin of the orbit, and drawing the lower one downwards.

Constitutional Treatment.—Simple corneitis requires no constitutional treatment. In the interstitial form anti-syphilitic remedies should be employed. I generally give two or three grains of hyd. c. cret. twice or three times a day; but the bichloride of mercury, or iodide of potassium, may be used if preferred, in combination with bark or some other tonic. In the case of weakly, delicate patients I omit the mercury, and give cod-liver oil and steel wine or dialysed iron. In the other forms of corneitis, especially the pustular, we should give tonics—as steel wine, dialysed iron, tincture of perchloride of iron, quinine, etc. I usually give dialysed iron to children, and the tincture of perchloride of iron to adults. In strumous patients cod-liver oil should also be prescribed, and all should have plenty of fresh air and live well, but not be over-fed. Attention must be paid to the state of the bowels, ascarides got rid of, and the teeth looked to.

Ulcers of the Cornea.

Ulcers of the cornea present a great variety of forms: they may be transparent, or opaque; they may be healing, spreading, indolent, vascular, or sloughing; they may cause only slight superficial abrasion of the cornea, or may be of such a depth as to extend through all its layers, and open the anterior chamber; they may affect only a point of the corneal surface, or implicate its whole area.

Ulcers are sometimes described as "marginal," or "central," according to their position. Corneal ulceration is constantly met with in cases of debility, from whatever cause arising. Thus, it is very common in patients recovering from acute diseases—as measles, scarlet fever, and more especially small-pox; but in the latter the ulceration is not caused, as is often supposed, by the formation of pustules upon the cornea, but is the result of impaired nutrition. Children are much more frequently affected than adults. By far the greater number of cases commence as pustular corneitis.

The symptoms of ulceration are very similar to those of corneitis. On examination, any kind of ulceration may be found (one variety has been mentioned under "Pustular Corneitis"). There may be one or more small *transparent ulcers*, which can only be seen in certain lights, and are very likely to be overlooked. They appear like small abrasions of the epithelium. Sometimes the greater part of the surface of the cornea is found to be taken up either by several small transparent ulcers or one large one. This form of ulceration is most commonly met with in adults of irritable, hypersesthetic temperament, and should always be carefully looked for when a patient of this description presents himself, suffering from severe intolerance of light, watering of the eye, and smarting pain, without any very apparent cause.

Opaque ulcers are visible enough: they may be of any size or number. Sometimes they appear to be healing, in which case the edges appear smooth, and the surface of the ulcer rough and opaque or cloudy. At others they are indolent; and again they may be spreading, when the edges of the ulcer are found to be clean cut, as if a piece of the cornea had been punched out by some sharp instrument, the surface of the ulcer appears glassy, and its depth may be considerable.

Sloughing ulcer is more or less opaque, spreads rapidly both in area and depth, and, if the process be not soon arrested, the cornea will be perforated, and a prolapse of the iris, of greater or less extent (according to the size of the perforation), take place. If the opening be large, the lens or some of the vitreous may escape.

In the greater number of cases of perforation of the cornea, the iris pushes forward, fills the opening, and becomes adherent to its margins, forming an "anterior synechia," or a considerable prolapse may take place, forming a "staphyloma." So soon as perforation has taken place, the ulcerative process stops. We have here an indication for treatment.

Marginal or crescentic ulcer (ulcus cornea serpens) is a somewhat peculiar form of corneal ulceration; it is met with in persons of middle age, is very intractable, and very liable to recur or relapse. This form of ulceration is accompanied by very severe pain, great intolerance of light, and very profuse lachrymation. On examination, a crescentic patch of ulceration is found skirting generally the upper margin of the cornea; the ulcer is deep, its margin clean cut, and its surface glassy-looking; the cornea adjoining is occupied by a halo of dulness. The ulceration spreads rapidly up to a certain point, the part first affected, perhaps,

cicatrising whilst the ulcer is still creeping on; it then remains stationary for a time; then commences to heal slowly, the healing process being frequently interrupted by relapses. It is one of the most intractable of ocular affections. The ulcerative process may involve both the upper and lower segments of the cornea, but never passes up to its centre.

Treatment.

The treatment of ulcers of the cornea is similar to that of corneitis, but in all cases it is better to keep the eye carefully bandaged.

In cases of deep or sloughing ulceration, where perforation appears imminent, iridectomy must be performed. The timely performance of this operation will very frequently save a large rupture of the cornea. After iridectomy the ulcerative process is stayed in the same manner as when perforation takes place. Paracentesis of the anterior chamber is practised in these cases by some surgeons, but I think its effects are too transient to be of any benefit, and should recommend you to perform iridectomy in all cases where an operation appears necessary. Paracentesis at the best is only *a half-and-half proceeding*; the operation is simple enough, but its simplicity is its only recommendation. It should be performed as follows:—

Place the patient in a supine or sitting position, stand behind, and fix the lids open by a wire speculum, or by the fingers, then pass a broad needle through the cornea, at some convenient part of its margin. When the point of the needle has entered fairly the anterior chamber, rotate its handle so as to bring the breadth of the blade across the incision, and thus open it. As soon as the contents of the anterior chamber have flowed out, withdraw the needle, place a drop of atropine solution between the lids, and bind the eye up with two folds of wet lint and a turn of bandage.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASES OF HÆMORRHAGE FROM ABSCESSES.

By E. L. HUSSEY, F.R.C.S. Eng.

It is not often in the minor operations of surgery that a practitioner sees much hæmorrhage from a small wound, or a flow of blood which requires anything more than temporary pressure to restrain it. It has happened, however, to myself sometimes, as to others, to find it arise from a vessel in the common integument.

In 1845, a young married woman, of strumous constitution, about twenty-six years of age, was admitted into St. Bartholomew's Hospital in a weak and sickly condition of general health. Her mother was one of the sisters of the hospital, and by her wish, privately expressed to the matron, she was placed under the care of Dr. Hue, in a ward where I was acting as clinical clerk. Several small abscesses, arising from a cachectic disposition—some of them superficial, and some deep—formed successively in different regions. In opening one of them, situated superficially at the inner side of the left arm, a little above the condyle, I observed a full stream of venous blood flowing from the puncture. Upon separating the edges, it appeared that the blood came from a slit in a large vein immediately under the skin. The side of the vein had been transfixed by the lancet as it passed into the sac of the abscess. She was not in a condition to bear an unnecessary loss of blood; I therefore stopped the flow at once with a compress and piece of sticking-plaster. The next day I removed these, and re-opened the abscess with a probe. When I separated the edges of the puncture with the probe, and passed it on without feeling any obstacle to its passage, the patient complained severely of pain in the upper part of the arm. Upon a more careful examination I found that the probe, instead of passing straight into the cavity of the abscess, had entered the wounded vein, and that it passed upwards in contact with the inner membrane. Whether the pain was due to the sensitiveness of the membrane lining the vein, or to other circumstances, I am not prepared to say. I only record the fact that the passage of the instrument along the vessel was attended with acute suffering. This is the only opportunity I have had of observing such a phenomenon.

In December, 1862, a young lady, about twelve years of age, had a small collection of matter in the temporal region. The skin over it was tense and unyielding. There was no pain, or other inconvenience, except the swelling. I thought the swelling would come forward to a "point"; that if the operation of opening it was delayed for a day or two, a very small puncture would be all that was wanted to let out the matter, and that the healing of such a minute opening would be followed by a scar that would not be visible. In compliance with the wish of Dr. Acland and Dr. Freeborn, who were in attendance, I made a puncture with a lancet. An artery was wounded and it bled freely. In order to restrain the bleeding it was necessary to draw the edges of the wound together with a piece of sticking-plaster; next day the edges were separated with a probe without further hæmorrhage.

A child of weakly constitution, about six years old, was under the care of Dr. Acland with enlargement of the leg arising from inflammation of the tibia or periosteum. The parents lived at a distance, and the child was brought into Oxford at intervals for the purpose of treatment. A large collection of matter formed in the middle of the leg over the front of the tibia. I made a puncture with a lancet and let out two or three ounces of matter; blood of an arterial character escaped with the matter. It was evident, by the flow, that a vessel of some considerable size was wounded. The bleeding was checked by firm pressure with the finger, but it returned when the pressure was relaxed. I pressed the edges of the wound together with a piece of lint and a strip of sticking-plaster, and bound them on the limb by several turns of a roller. The child was then taken home by its mother. After some three or four days the child was brought to me again; I removed the compress and opened the wound with a probe. There was no further bleeding. The rest of the contents of the abscess were afterwards discharged in a poultice.

In March, 1863, a widow lady, about sixty years of age, not of strong constitution, was under the care of Dr. Freeborn, with diffused swelling of the subcutaneous tissues in the region of the right clavicle, above the mammary gland. The gland itself was not involved in the general mass. Sloughing of cellular tissue followed, with much suppuration. One evening the lady was alarmed by a sudden and profuse loss of blood from the open surface. I saw her, with Dr. Freeborn, soon after the occurrence. The bleeding had ceased before my visit. The wounds healed slowly without further hæmorrhage. The lady lived several years afterwards in good health.

In June, 1864, a man between fifty and sixty years of age, of intemperate habits and of broken health, was under the care of Dr. Acland and Mr. Martin with sloughing and suppuration of the parts on the side of the neck, after an attack of erysipelas. In the course of the complaint bleeding came on from the wound of so profuse a character as to lead to the opinion that some large artery deep in the neck had given way. I saw the patient in consultation with the above-named gentlemen. The bleeding had ceased of its own accord at the time of my visit, and it did not return. After some weeks the man died, exhausted by general constitutional disease rather than by the local complication. There was not any further hæmorrhage.

In June, 1878, a boy, four years old, of weakly constitution, was suffering under an attack of scarlatina anginosa. On Saturday afternoon (the 15th) the child was in the mother's lap, when a large abscess in the left orbit burst through the upper eyelid. On Monday morning, about two o'clock, he was restless and was taken out of bed by the mother. While he was in the mother's arms, leaning with his head against her shoulder, a sudden and profuse rush of blood burst from the opening, flowing over the mother's shoulder. Mr. Druce saw the child soon after six o'clock. The bleeding had ceased before he arrived. He estimated the loss of blood at a pint. He applied a compress of lint, and a roller round the head. After Mr. Druce's visit, the child tore off the bandage and compress. They were replaced by the mother without further hæmorrhage. I saw the child with Mr. Druce about twelve o'clock. It never rallied from the effects of the loss of blood. It died early on Thursday morning (the 20th).

Disease of the Hip—Abscess—Hæmorrhage.

In January, 1854, a boy, twelve years old, was admitted into the Radcliffe Infirmary under my care, with disease of the

left hip-joint. The head of the thigh-bone was on the dorsum of the ilia, and a large abscess was presenting in the posterior part of the thigh. This was afterwards opened. The boy was taken home in the beginning of May. In the course of the summer an elder sister came to me in great alarm, begging my immediate attendance on account of sudden and profuse bleeding from the wound. This had ceased when I arrived. The boy had been taken out of bed and was standing for the dressings to be changed. His nurses were his mother and sister. I advised them to change the dressings at an earlier hour in the day, and to do the necessary operations as the boy lay in bed. Some weeks afterwards the sister came to me again with a similar request for immediate attendance. Upon inquiry, I learned that the bleeding had come on, as before, while the boy was out of bed, standing up for the dressings to be changed. I told her to go home and lay the boy down in bed, and that the bleeding would stop. When she found that I would not go with her, she tossed up her head and went away. In January, 1862, I again saw the boy. The disease had ceased, but the limb was shortened under the effects of the disease.

Disease of the Hip—Abscess—Hæmorrhage—Death from Exhaustion.

In October and November, 1866, a boy of weakly constitution, ten years old, was in the Radcliffe Infirmary, under my care, with disease of the hip-joint in an early stage. He was much relieved by rest, and was sent back to his friends. He was re-admitted in August, 1868, with the disease much advanced and an abscess discharging freely. In January, 1869, another abscess burst, close to the spine of the ilia; and in April a third, on the posterior aspect of the limb, about midway between the trochanter and the bone. He was taken home in June. He had continued in the Infirmary rather longer than was beneficial, chiefly out of kindness towards his mother, who was much broken by recent trouble in her family, and was not at the time able to take charge of him. She afterwards gave me this account of his case. In the early part of the winter he lost some blood from one of the open wounds near the hip; and in the beginning of December, while straining in defæcation, he lost a much larger quantity—a quart, she said. The attendance of a neighbouring practitioner (Dr. Spencer) was obtained. From him I learned that the boy's strength failed rapidly after this, and that he died exhausted in the beginning of February, 1870.

Oxford.

ON THE

REPORT ON THE LEPER ASYLUM OF BRITISH GUIANA FOR 1877.

RESULTS OF THE GURJUN OIL TREATMENT.

By GAVIN MILROY, M.D.

THIS detailed Report—the first, I believe, that has ever appeared in this important and prosperous colony—is an extremely interesting and instructive document, and augurs well for the future increasing welfare of an institution which has long stood greatly in need of a thorough reform. Its publication (Demerara, 1878) has doubtless been due to the Circular Despatch from the Colonial Office in August, 1876, in which the Secretary of State expressed his desire to the Governors of different colonies in these terms:—"I have to call your attention specially to the recommendation made by the Committee of the Royal College of Physicans, that the medical officers of the Leper Hospitals should make annual reports, and that these reports should be published and circulated. If this is not already the practice in the colony under your government, I have to request that you will give the necessary instructions for carrying out this suggestion." Shortly before this despatch was received, the local Government had fortunately adopted a code of new rules and regulations, for their Asylum, such as had been initiated at the Trinidad Asylum a few years previously,(a) and where it had led to very beneficent practical results. The principal points in the new rules which deserve special notice are the following three:—

1. *The Duties of the Medical Officer,* in respect of his entire direction and control in the management of the patients, and also of his keeping accurate records of all the professional work done in the course of the year. When Mr. Hillis, F.R.C.S., the author of the present Report, commenced the duties of the office in March, 1877, he found the Asylum in every respect to be in the worst possible state of neglect and mismanagement, and the condition of the poor inmates to be as deplorably bad as I had found it in the autumn of 1871, and described in my Report to the Colonial Office, 1873. The salutary changes which he effected in the course of nine months, with the efficient support of the then Administrator of the colony, were, in spite of the inevitable difficulties arising from the faulty and most defective state of the Asylum itself, signally successful, and reflect the highest credit on his professional zeal and ability.

2. *Dietary, Cooking, Hours of Meals, etc.*—Mr. Hillis states that a "new dietary scale, approved by his Excellency the Administrator, is now in full force," and that "the diet is a very liberal and wholesome one." It deserves to be particularly noticed that, in his opinion, "salt food ought to be eliminated as far as possible from the lepers' dietary."

3. *Industrial Occupations among the Inmates.*—Among the rules of the Trinidad Asylum is the following one:—"As regular bodily exercise in various industrial occupations, outdoor and indoor, is highly beneficial to health, and forms an important element in the treatment of leprosy, all the inmates, without exception, are required to engage in such work or employment, and for such length of time, as the Medical Superintendent or the Resident Inspector may direct." After the example and the experience of the sister colony, the introduction of a like system into the Demerara Asylum appears to have been equally beneficial. Besides labourers, scavengers, water-carriers, and firewood cutters, the list of workpeople now engaged includes carpenters, tailors, shoemakers, and boatmen,—and also, I rejoice to see, a schoolmaster for children. The female patients make their own clothing; and on this subject Mr. Hillis adds the following very useful remark:—"As regards the clothing, I must mention that leprosy is attended with a lowering of the vitality, and the inmates complain greatly of feeling cold. Their complaints, I am sure, are well founded, and I would suggest that some sort of warm inner shirt be supplied, to be given out by the surgeon as he thought necessary."

As an Appendix to the Report, there is given a valuable detailed account of thirty-two cases of leprosy in which the use of the gurjun oil treatment, as recommended by Dr. Dougall, was employed, and the description of the cases is made the more attractive by the addition of excellent photographs of most of the patients. The concluding remarks by Mr. Hillis will be read with interest by the profession generally:—

"Gurjun oil is laxative, diuretic, and alterative, and it seems to exercise a specific action on the sweat-glands, as evidenced by the perspirations produced in anæsthetic parts when the remedy is taking effect. There is always returning sensation when this sweating occurs. The softening of the tubercles I believe to be due to its alterative action. The oil, when taken internally, causes frequent purgings, and acts on the kidneys and urine in the same way as balsam copaiba.

"Among the thirty-two patients submitted to this treatment during the past nine months, a very great improvement in all the symptoms occurred in sixteen of the cases. Eight have had their symptoms ameliorated, and one case so far recovered that he was enabled to return to his family and friends. In one case the patient refused the medicine; three cases had to go into hospital, one of whom died; one case became insane; and there were only two cases in which the oil had no appreciable effect on the disease. We have therefore twenty-five cases out of a total of thirty-two greatly benefited by this treatment.

"I will therefore, in conclusion, merely observe that in gurjun oil we appear to have a most valuable medicine for the treatment of leprosy in all its forms—one capable of improving and retarding the ravages of the disease, in some cases appearing to cure it; but whether this benefit will be transitory, or whether the symptoms will return, can only be learned by further experience in its use, and by recording the clinical progress of these and other cases at this Asylum and elsewhere."

Richmond, S.W.

(a) "Report on Leprosy and Yaws in the West Indies," pages 68-70.

A NOTE ON

THE USE OF ESERINE IN GLAUCOMA.

By W. SPENCER WATSON, F.R.C.S.

In a communication to the *Medical Times and Gazette* of February 1 last I remarked that "sulphate of eserine in the form of a collyrium was *said* to be useful either when, from any cause, the operation is delayed, or after the operation if the tension returns." Recent experience has convinced me that this reputed power of eserine is not a mere illusion. I can fully endorse the views expressed by De Wecker in his recently published work ("Thérapeutique Oculaire"), in which he lays it down as a rule that eserine should always be employed before and after an operation for glaucoma, whether the operation chosen be iridectomy or sclerotomy. I have been agreeably surprised at the manifest advantages of employing it under these circumstances, and now find that operations may be safely postponed in certain cases for a week or ten days, or even longer, when eserine is used, whereas without it delay seemed almost fatal to the chances of saving or restoring sight. In hospital practice, and perhaps even more so in private, it is often difficult to convince patients of the extreme urgency of the symptoms; and, even if convinced, the dread of the knife keeps back nervous patients from the necessary ordeal until it is perhaps too late. It is therefore a great advantage to have at hand a remedy the effect of which is to render delay less dangerous than it must otherwise be, and in eserine we possess such a remedy. The two following cases illustrate this point in a way which to me is very convincing:—

Case 1.—*Simple Glaucoma of Both Eyes, with Excavated Discs and Pulsating Vessels—All the Symptoms Relieved by the use of Eserine.*

Elizabeth C., aged thirty-nine years, a small woman, with dark hair and irides, married and with six children, came to the South London Ophthalmic Hospital on December 30, 1878, with all the subjective and objective symptoms of simple glaucoma. She said she had been nursing a sick husband and had from various causes had very disturbed nights, and yet been obliged to work hard during the day. For the last eight months her sight had been failing, and she had noticed coloured haloes round the candle. She had never had any pain either in her eyes or in the surrounding bones. The tension was increased in both eyes. Vision of right eye, letters of J. 20; vision of left, J. 10. Both pupils fixed and half dilated. Both anterior chambers shallow, especially that of the right, in which also the cornea and aqueous were very turbid. Both optic discs were excavated, that of the right eye being very much cupped and pale, as if from some degree of atrophic anæmia, while that of the left eye retained its normal colour, and was even hyperæmic. Venous pulsation was seen in the right eye, but not in the left. This was a clear case for iridectomy or sclerotomy. An operation was at once proposed, but, as might have been expected, the mother of six children, with a sick husband to nurse, was in no mood for sudden and active measures, even though threatened with the possibility of losing her sight. She was, however, fully warned of the risks she was running by refusing operation, and told in the meanwhile to use the eserine drops twice a day.

January 3, 1879.—Patient declares that she has never had the coloured haloes before her eyes since she used the drops. Her vision has decidedly improved; right eye, T, V. J. 10; left eye, temperature normal, V. J. 8. In both the anterior chamber is clear, and the plane of the iris normal.

17th.—The drops have been continued, and there is still further improvement of vision. It is doubtful whether there is now any tension, even of the worst eye.

An operation was again urged upon the woman, who is, however, so well satisfied with the improvement in her sight that she still declines, and is therefore directed to continue the use of the eserine drops and to take quinine.

The improvement in this case followed so closely upon the application of the eserine and its known action upon the pupil, that it is hardly possible to avoid the conclusion that the local application produced the improvement. As, however, in simple glaucoma temporary ameliorations of all the symptoms are not uncommon apart from medical treatment, it is quite within the range of possibility that a temporary improvement, due to natural causes, may have been accidentally contemporaneous with the use of eserine, and that the effect of the latter was simply *not detrimental*, though perhaps not actively beneficial.

In the following case the symptoms were more acute, and though the influence of the eserine was watched for a short time only, there was good evidence that during that period its effect was decidedly beneficial.

Case 2.—*Acute Glaucoma—Relief of Pain, but no Effect on the Pupil, by the use of Eserine—Iridectomy successful.*

Maria D., aged thirty-seven years, had suffered for five weeks with well-marked glaucoma of the right eye. There were chromopsiæ, severe pain, extreme tension (T_3), and great impairment of vision. She applied on January 20, 1879. The pupil of the right eye was then dilated and immovable, and the cornea and anterior chamber very turbid. Vision = mere perception of light at the outer side of the field. With the ophthalmoscope only a dull-red reflex was obtainable when examining the pupil. Iridectomy was proposed, but the usual difficulty about the care of children at home (one being eight months old and sucking her mother's breast, and five others being dependent on her care) made it necessary to postpone the operation. Eserine was applied: it relieved the pain, but did not cause contraction of the pupil nor diminution of tension.

On January 24, the daily use of eserine having had no permanent effect beyond the slight relief of pain, iridectomy upwards was performed. On the 31st this patient could tell the time by the watch, the tension was normal, and only a slight amount of pain was complained of. She was directed to continue the use of eserine and to take quinine.

Here was a typical instance of acute glaucoma. The operation was unavoidably postponed, and the use of eserine appeared to delay the progress of the glaucoma during the interval, so that eventually the operation was successfully performed. In several instances similar good effects have been obtained. It is therefore probable that in future the use of eserine in glaucoma will become very general. There is a danger, however, that its undoubtedly beneficial influence may be relied on as a substitute for iridectomy or sclerotomy. According to my experience hitherto, its action in the cases in which it has been used would not justify its employment with this view, and I hold that surgical measures must still occupy the first place in the treatment of glaucoma, while local medication, if used, must take the place of a handmaid or assistant to, not that of a substitute for, operative treatment.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

PULPY DEGENERATION OF THE KNEE—PARTIAL EXCISION—DEATH.

(Under the care of Mr. MARSHALL.)

William T., aged seven years, was admitted on January 21, 1879. About three years ago he was kicked on the left knee, and in 1878 he was under treatment at this hospital, and had the limb put up in plaster of Paris. There had been no pain in the knee after this, but the joint becoming bent, he applied to the hospital again and was admitted as an in-patient. On admission he appeared to be a weakly-looking lad and very anæmic. The papillæ of the tongue were red and prominent, and the tongue itself was covered with a faint grey fur. The heart and lungs on examination appeared to be healthy. The left knee was red, swollen, and slightly hotter than the right; its circumference over the patella was ten inches and three-fifths as compared with nine inches and one-fifth on the sound side. The ends of the tibia and femur appeared to be slightly enlarged; the patella was situated over the outer condyle of the femur, and was almost immovable. Below the patella slight fluctuation could be detected, and in the same situation there was some tenderness. The tibia and femur were fixed at about an angle of 123°, the parts being almost immovable. Attempts to flex

or extend the joint gave rise to intense pain. The leg bone was displaced backwards and outwards, and the leg was slightly everted. The muscles of the limb on the diseased side were wasted, especially those below the knee.

January 30.—To-day Mr. Marshall performed partial excision of the knee-joint. The anterior flap was made in the usual manner; the upper cartilaginous surfaces of the tibia were sawn off, and the lower half of the condylar epiphysis of the femur. On the inner part of the inner condyle of the tibia was a small piece of dead bone, about the size of a pea; the bone around this was gouged away, and some suspicious-looking parts of the cartilaginous surfaces of the femur were scraped away. Five arteries, including the azygos, were tied, and there was a good deal of venous oozing at the time of operation. The leg was extended, and the joint was washed out with carbolic acid lotion. Horse-hair drainage was established, and the flap was brought down and five sutures put in. Antiseptic precautions were observed throughout. On examining the parts removed the cartilaginous surfaces of the tibia were found to be eroded, and had in part disappeared, leaving hard rough bone with deep pits into which fringes of synovial membrane were inserted; at the inner side of the tibia necrosed bone was found surrounded by granulation, and here the cartilaginous surface had entirely disappeared. Only the parts of the cartilage of the femur in contact with the tibia were affected. The synovial membranes were much thickened, and pulpy fringes had encroached upon the cartilage where the latter had ulcerated away, and were growing into pits in the bone. Scarcely any fluid was found in the joint, and the lower end of the femur and the upper end of the tibia were not appreciably enlarged, the apparent enlargement being due to the thickening and softening of surrounding structures. When sawn through, the bone presented the ordinary appearances of inflamed bone, the infiltration and staining of the cancellous tissue being most marked close beneath the articular surfaces. After being kept in chromic acid solution, the bone was examined microscopically. The spongy tissue contained numbers of small caseous masses, surrounded by small cells in a granular matrix scattered through it more or less thickly. Vessels were apparent at the periphery of the granulations. The osseous trabeculæ were undergoing absorption, apparently from pressure or the influence of granulations giving rise to softening and rarefaction of the bone. In many places the granulations had spread to the under surfaces of the cartilage, separating it from the bone, and occasionally detaching small pieces from the rest. The cartilage cells near the granulation tissue were fatty, enlarged, and granular; the intercellular substance was disintegrating and becoming absorbed. The cartilage cells did not seem to multiply and subdivide, but to become fatty and fall out and disappear, leaving gaps in the intercellular substance, which were filled up by advancing granulations. The cartilage cells beneath the inflamed synovial membrane appeared healthy, as also did the layers farthest from the bones; the destruction of cartilage appeared, in fact, secondary to the growth of the granulations in the bone beneath it, and not to any affection of the synovial membrane. The cancellar tissue of the bone was filled with fat globules, and it was not until these were cleared out with benzole that the caseous matter and round cells could be seen. The bone corpuscles seemed to be normal.

31st.—There was considerable oozing from the wound yesterday afternoon, and the dressings had to taken down and pressure applied. Two hypodermic injections of morphia of a grain each were administered, and patient slept well. He was twice sick in the night. Temperature this morning 99·8°. Aspect very blanched.

February 1.—Patient again slept well after a hypodermic injection of morphia. The temperature this morning is 100°; pulse 128, full and compressible.

3rd.—There is considerable œdema of the right foot. The limb was dressed at 11 a.m., and the wound found filled with blood-clots; the dressings were sweet. There was considerable œdema of the whole limb, but no tenderness over the course of the veins. Patient has been sick this morning, and looks blanched and ill. Temperature 11 a.m. 100; pulse 140.

4th.—Patient is pale and cyanotic. He is constantly vomiting. The temperature has fallen to 97°; pulse is 140° and very compressible; the extremities are cold. 2 p.m.: Patient is sweating profusely; pulse 160. 2.30 p.m.: Mr. Marshall saw patient, and had the dressings removed; the wound was sweet. The limb was put up again, and extension put on. An enema containing brandy was given, and this was immediately followed by sickness. Patient remained apathetic after this, and died quietly at 9 p.m.

Examination of the Body, forty-three hours after Death.—Rigor mortis was not present. The body was that of a thin but fairly nourished boy; there were traces of decomposition about the abdomen, hands, and feet. On examining the thorax there was found to be about eight ounces of serous fluid in the right pleura and about six ounces in the left. There were a few old adhesions at the right apex and at the left base; no petechiæ were visible, and no lymph. The left lung weighed eight ounces and a half. The apex and lower and posterior borders were emphysematous; there were patches of collapsed vesicles all over the surface; the lower lobe was congested. The right lung weighed eleven ounces, and its general characters were the same as those of the left. An old cicatrix was found on cutting into the apex, at the middle of which was an encapsuled calcareous mass about the size of a large pea; several smaller patches of caseous tubercle were also found in the apex surrounded by indurated lung-tissue. The heart was pale and soft; the blood in the great vessels was fluid. In the abdominal viscera and in the brain nothing abnormal was found. The wound appeared healthy, and there was no appearance of any inflammation or blocking of veins.

In making some remarks, subsequently, on this case, Mr. Marshall pointed out that he was anxious in so young a subject to remove as little of the parts as was possible, and by taking away thin slices of the bones he was able to get rid of the diseased parts and get the limb in good position. The synovial membrane was laid open freely, but there was no great alteration in its structure. The swelling of the external soft parts was characteristic of those cases as distinguished from cases of disease commencing in bone, where the swellings involved the whole of the osseous parts. Another point to notice also was that there was, as a rule, little fluid in joints where there was pulpy degeneration going on. The growth of the fringes, into the cartilage might be caused by one of two things: either by some erosive action of these synovial fringes, or else by the new growth simply following up to take the place of the cartilage which was wasting away from other causes. There was no proof of any absorptive power residing in these synovial fringes, and the latter was the more probable explanation. With reference to the course of the case, it was probable that the state of the pulse and the temperature were explained by the loss of blood and by the reaction following so severe an operation. The swelling which followed in the limb was probably due to some pressure on the popliteal vein from effusion into the joint; it seemed, any way, not to be connected with phlebitis. As to the cause of death, there were several things which might be discussed. The question of pyæmia might be put out of the way; there had been no rigors; the temperature had never gone higher than 101·6°, and no secondary abscesses were found anywhere. With regard to septicæmia, it was possible that some septic matter might have been absorbed from the wound, but there was no evidence of this, and the appearance of the parts after death was rather against such a suspicion. Death probably was the result of want of sufficient strength to bear up against such an operation, owing to the tubercular diathesis which was present, and to the hæmorrhage which occurred during and after the operation. The congestion at the bases of the lungs naturally came on in such a subject, and, along with the pleuritic effusion, helped to bring about a fatal result.

LONDON HOSPITAL.

CASES IN MR. COUPER'S WARDS.

[Reported by Mr. Frederick Treves, F.R.C.S., Surgical Registrar.]

Case 1.—Aneurism of the Common Femoral Successfully Treated by Digital Compression, and subsequently by Direct Pressure.

The patient, a healthy, well-developed man, aged twenty-five, was admitted into Mr. Couper's wards on April 28, with a well-defined pulsating tumour immediately below Poupart's ligament in the left thigh. The dimensions of the tumour were four inches by four inches and a half; it was fairly movable in the adjacent parts; the contents were apparently

fluid. It had all the characters of an encysted aneurism. Patient had been occupied during the past six months in an iron factory, where his work required him to lift and carry very heavy iron plates. No history of any definite accident. No evidences of syphilis or of general arterial disease. Four months ago patient noticed that his left foot was swollen and blue. He experienced pains down the limb. The swelling increased, and three weeks before admission the tumour was noticed. Its increase in size has been rapid and continuous. The tumour extended quite up to Poupart's ligament, but did not encroach upon the abdomen. The pulsation could be commanded by pressure upon the external iliac artery.

May 2.—Digital compression of the external iliac artery commenced at 5 p.m. by a staff of dressers. Patient kept under the influence of morphia. The compression was maintained for forty hours; at the end of that time the tumour was found to be a trifle less prominent, harder to the touch, and the pulsation more readily controlled.

The patient was somewhat exhausted, but bore the compression well and with little complaint. Compression was discontinued at 9 a.m., May 4. Digital compression was again commenced at 5 p.m. on May 5, and continued until 6 p.m., May 6. The tumour then appeared still harder, and a trifle decreased in size. It still, however, pulsated vigorously. On the afternoon of May 7, Mr. Couper caused direct pressure to be made upon the tumour itself by means of a well-padded weight (10 lbs.) suspended from a cradle. This weight was allowed to rest upon the anterior and inner aspect of the tumour, caused patient no inconvenience, and completely arrested all pulsation. This direct pressure was continued for two hours, when Mr. Couper removed the weight, and found very feeble, but still undoubted, pulsation. On examining the tumour again, however, about a minute after, it not being touched during that interval, the pulsation was found to have entirely ceased. Digital pressure in this case was applied under great disadvantages. In the first place, only one particular and very limited spot close above the tumour was available for its application, and the finger had to press deeply into the abdominal muscles to reach the artery. In the second place, about ten minutes was the longest time during which the pressure could be maintained by one individual, and during the change of hands, which would occur at the end of that period, some pulse generally reappeared in the tumour, and often a very full pulse. In this way clot was very slowly built up. After sixty-six hours of finger-compression, Mr. Couper found that by placing his palm upon the aneurism a very moderate degree of pressure sufficed to arrest completely all pulsation, and it was this circumstance that suggested to Mr. Couper the use of the weight. Although the actual weight used was 10 lbs., it was so supported from the cradle that it must have exercised a much feebler pressure upon the tumour, it being placed so obliquely that a considerable portion of its weight must have been borne by the suspending cord.

May 16.—The pulsation did not return. The tumour has dwindled into a little hard mass. The patient is ordered up for a short time daily. The œdema of the limb has entirely disappeared, and the man feels "well."

Case 2.—Fracture of Base of Skull, with Recovery.

The patient the subject of this injury was a healthy, well-developed man, twenty years of age, who was admitted under the care of Mr. Couper on January 2. While in a state of intoxication the patient was knocked down in the street, and the wheel of a van passed directly over the left side of his head. On admission he was slightly collapsed, but was able to answer questions if loudly spoken to. The pupils were equal and contracted; the left angle of the mouth is described as "hanging down"; there was perfect power in all the limbs, and no evidence of want of control over the sphincters. There was a very extensive scalp wound of the left side of the head, extending from the angular process of the frontal bone to the external termination of the superior curved line of the occiput; so considerable was the detachment that the flap of scalp could be turned over the right ear. There was bleeding from both nostrils, both ears, and the mouth. The blood from the right ear was considerable in quantity, welling up in a continuous stream. Blood was also vomited shortly after admission.

January 3.—Patient perfectly conscious. Blood still oozing from the right ear, and a thin serous fluid tinged with blood from the left. Facial paralysis of the right side well marked. Unable to hear a watch when placed close to the right ear. Hearing normal on left side. Subconjunctival ecchymoses of both eyes.

4th.—Fluid from right ear, thin, serous, and blood-stained. Discharge from left ear ceased. Patient complains of severe headache and of pain in right ear.

7th.—Patient restless. Temperature 104°. Fluid from right ear less in quantity, but still blood-stained. Great chemosis of right conjunctiva. Appetite failing.

9th.—Slight wandering last night. Severe headache still complained of. Watery discharge from nose noticed for the first time, and of such amount as to cause patient some distress. In the evening difficult micturition was complained of. This symptom, however, passed off and did not recur.

From January 10 to 14 patient remained in a very drowsy condition, sleeping continuously. The discharge from the right eye became foul and purulent, and tenderness over the mastoid region was noted.

On January 22 the discharge from the ear had much decreased; on February 22 it was very trifling; and from this latter date the patient's recovery was uninterrupted. Nothing abnormal was detected in the optic discs at any time.

The examination by Mr. Gardiner Brown, Aural Surgeon to the hospital, is thus noted:—"February 15: Hears watch at two and a half inches, tuning-fork well on vertex and over right mastoid; membrane still not visible owing to swelling of meatus just anterior to membrane. The patient can now hold in his mouth water for Pollitzer's inflation to be performed, and this evidences a large, or at least a long, opening in the membrane." Hearing on left side normal.

On February 12, galvanism of the affected side of the face was commenced, and continued daily until the patient was discharged on April 17. It resulted in a very considerable improvement of the distortion.

Case 3.—Punctured Wound of Bladder through the Buttock.

A seaman, aged twenty-three, was admitted under the care of Mr. Couper on April 26, with a small incised wound of the left buttock. He had been stabbed, in a quarrel, with a long sailor's knife. He walked into the receiving room, but with difficulty; was blanched, and in a condition approaching collapse. From the condition of his trousers it was evident that he had lost a great deal of blood. The wound was about one inch long, was clean cut, and situated exactly in the middle of the left buttock. The finger introduced into the wound passed for some depth in the direction of the great sciatic notch, and that notch, indeed, could be felt. There was a little venous oozing from the wound, which was immediately checked by pressure. The wound was treated antiseptically. The patient complained of no pain other than that immediately about the wound. Shortly after admission he passed his water. It was clear and contained no blood.

Next day patient appeared quite comfortable, made no complaint, had no difficulty with his water, which was passed at usual intervals and was always normal.

April 28.—Patient vomited several times: complained of pain over abdomen; became restless. Temperature at night 104°.

April 29.—Vomiting continued. Patient very restless and feverish; much pain complained of over hypogastric region. In the afternoon the patient tore off all the antiseptic dressings (they had been renewed daily). The wound looked well and was free from discharge.

Symptoms of acute peritonitis now became more apparent, and patient died on May 1.

Throughout the whole case the patient never had any trouble with his bladder.

At the post-mortem examination the knife was found to have taken the following course:—It had passed through the gluteal muscles, divided a part of the great sacro-sciatic ligament, passed through the small sacro-sciatic notch, completely dividing the pudic artery and nerve and one vein. Each end of the pudic artery was perfectly closed by a little clot. The knife had then entered the bladder at its lower part and close to the trigone, making a wound large enough to admit the tip of the forefinger. There was diffuse suppuration of the cellular tissue of the pelvis, and general acute peritonitis.

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Medical Times and Gazette.

SATURDAY, JUNE 14, 1879.

DEFECTIVE HOSPITAL RECORDS.

It is becoming more and more clearly recognised, not only by the members of the medical profession, but also by those intelligent laymen who are most conversant with the working of medical charities, that these latter institutions have other important purposes to serve than the direct and immediate one of ministering to the bodily ailments of their individual patients. While this last object must always be the primary and paramount one, it is acknowledged on all hands that there are other secondary but most important functions, the fulfilment of which is most desirable, not merely for their own sakes, but also as affording the strongest presumptive evidence that the primary object of such institutions is being served with the greatest possible care, ability, and success. These remarks apply more especially to hospitals connected with medical schools; and the secondary objects we have in view are involved, we need hardly say, in the diligent utilisation of the exceptional opportunities afforded by such institutions for the advancement of our knowledge of the subtle and multifarious phases of disease, and of the methods and results of its treatment. It is, of course, for the interest of the general public that this function of medical charities should always be kept in view, especially as it would seem an almost self-evident proposition that the institutions where this object is systematically attended to are also those where the direct relief of the patients under observation is likely to be most successful. Any proof that may be necessary of the truth of this proposition is at once supplied by the history of the various medical charities of the country.

Such being the case, it becomes at once the interest, the privilege, and the duty of the medical staff of each of our hospitals to see that the peculiar opportunities they enjoy of advancing professional knowledge, and of rendering permanent as well as immediate service to their species, be not allowed to pass unimproved. But though all are prepared to admit this duty in a vague and general sort of way, we are afraid it must be confessed that there is in too many cases much evidence to show that it has been either systematically ignored, or attended to in so haphazard and loose a fashion as to make the results practically worthless.

To make our remarks more pointed, let us confine our attention specially to the hospitals connected with the metropolitan medical schools. The circumstances of these institutions are such as to render them specially responsible for the discharge of the secondary functions we have mentioned. Their number, their collective size, their proximity, the ability of their medical staffs, and the healthy rivalry between the medical schools attached to them, combine to place them in a position of the greatest advantage and responsibility as regards the scientific investigation and treatment of disease. It is, then, no more than a proper question—Are these institutions doing all that may fairly be expected of them in this matter? We fear that the answer must be a negative one; and the inquiry as to the explanation of this comparative failure is a most important one in the interest not only of the institutions concerned, but also in the cause of the advancement of medical science in this country.

The chief cause for this unsatisfactory state of matters is one we have often before pointed out, viz., the want of a uniform system in recording the phenomena of disease, and the results of its treatment, in these various hospitals. We say we have pointed out this before, but every now and then there occur lamentable corroborations of the truth of our statement, justifying our present recurrence to the theme. One of the most recent of these was the declaration by the committee appointed by the Pathological Society to investigate pyæmia, septicæmia, and allied conditions, that much of the material furnished to them by hospital authorities was practically useless from this want of uniformity in the method of recording the very same class of diseased conditions.

Now, such a case as this is a very excellent one for enforcing the advisability of uniformity, at least up to a certain point, in the hospital registration of disease. However careful, methodical, and painstaking individual physicians or surgeons may be in their observation and description of morbid states, there are numerous matters which cannot be settled by individual records, but only by the collection and comparison of a very large number of cases having somewhat different surroundings—such a comparison, in fact, as one would *à priori* expect would be at once possible from the resources of our metropolitan hospitals, but which has, as we have said, been practically found to be so impossible in the present state of matters.

It is, however, unnecessary to say more at present in the way of proving the existence of this great defect in the results of the work of our hospital physicians and surgeons, for the evil has been admitted, and various programmes have from time to time been drawn up as suitable for general adoption in case-taking and the registration of disease. But experience has shown that there was one serious objection to all such programmes—viz., that they were too detailed and elaborate for general adoption—and the fact remains that there are almost as many methods of case-recording as there are hospitals. We are not, therefore, going to propose anything so impracticable and Utopian as the general adoption of an elaborate scheme of registration. Uniformity in all details, even if it were desirable, would be found to be quite impossible in the existing circumstances of the different institutions.

But what we would urge upon the attention of hospital physicians and surgeons is the urgent advisability of the adoption of uniformity in recording systematically the leading features of all diseased conditions, the cardinal facts referring to the temperature, the circulatory system, the renal secretion, etc. And we would strongly deprecate the

enforcement of any but the leading points in a system proposed for general adoption, as certain to involve its complete rejection. Uniformity up to such a low point as we have indicated is surely easily attainable, and it is quite certain that it is a measure of uniformity not yet attained. Thus, to take one of the matters which ought by this time to have been fairly well made out if *systematic* records of temperature had been kept at the different hospitals, we are afraid few physicians could answer satisfactorily the simple question: In what diseases or phases of disease is the human temperature sub-normal? To instance only another point, which, however, probably concerns out-patients more than in-patients: Can the records of hospitals yield us the information we might expect from them regarding the conditions of intermittent albuminuria?

While the adoption of such a measure of uniformity in the systematic registration of disease as we suggest would be possible to all, it would leave quite free scope to the diligence and acumen of individual observers to push their investigations to the utmost degree of detail. But, as we have seen, there are many important questions which can never be settled by individual observers; and we have received too many proofs that, so far as our metropolitan hospitals are concerned, with their existing system, or rather want of system, in recording clinical facts, these more general questions are never likely to be settled at all. The subject is, however, a large as well as an important one, and we shall recur to it.

CARDIAC HYPERTROPHY AND RENAL DISEASE.

Professor Buhl, of Munich, whose name is familiar to us from his researches on tuberculosis, has published a paper on the connexion between renal disease (granular kidney) and cardiac hypertrophy, which, judging from the abstract of it in *Centralblatt Med. Wiss.*, 1878, page 668, is likely to set the pathological world a-thinking. The original paper is entitled, "Mittheilungen aus dem pathologischen Institut zu München, 1878."

Voh Buhl rejects both the theories of Traube, and of Gull and Sutton, as to the causation of the hypertrophy of the heart in Bright's disease, and though it is not so stated, it is clear that, in part at least, Dr. G. Johnson's view, as well as Ewald's, lately referred to in this journal, would also be set aside.

The following points are urged against Traube's theory—(1) The occurrence of excentric hypertrophy of the left, or of both ventricles without the presence of granular kidney; (2) the occurrence of well-marked granular atrophy of the kidneys without hypertrophy or dilatation of the left ventricle; (3) the occasional existence of left ventricular hypertrophy without dilatation; (4) the complete absence of signs of a dilated arterial system, which would be the necessary consequence of increased arterial tension; (5) the absence of cardiac hypertrophy in other forms of renal atrophy. Von Buhl further points out (6) that Traube's theory does not explain the hypertrophy of the right ventricle, which coexists with that of the left in 70·8 per cent. of the cases; and that (7) the hypertrophy of the left ventricle is often present *before* the kidneys are atrophied.

Gull and Sutton's view, that the hypertrophy is due to a general fibrosis of the arterio-capillary system, is met by some of the objections raised above, and also by the facts that at the commencement of the renal affection the fibroid change in the arteries and capillaries is not present, and that it is rare for any other organ except the kidneys to be decidedly shrunken, whereas in a general fibrosis we should expect all highly vascular organs to suffer.

One general objection to all theories of increased arterial tension as a cause of the cardiac hypertrophy, and especially to Traube's theory, is the development of a *collateral circulation* in the kidney itself, by which the place of the constricted vessels is taken by others. According to Von Buhl, on the one hand, the vessels of the fat capsule, and the fibrous coat of the kidney, and the capillary network of the cortex, dilate; and on the other, the blood is diverted into the vasa recta, which run in parallel bundles from the boundary line between the cortical and tubular substance into the latter. The lateral pressure in these vessels is much raised, and their diameter becomes doubled or trebled. The resistance of the vasa efferentia becomes of no importance, the blood enters the veins more freely, and the increase of pressure in the dilated vessels is relieved by increased excretion of water. The real connexion between renal atrophy and cardiac hypertrophy, according to Von Buhl, is as follows, and it will be at once evident how much his hypothesis differs from the ordinary explanations of these phenomena. He asserts (1) that kidney and heart are simultaneously affected, but that the hypertrophy of the heart is due to myocarditis, the result of inflammation of the pericardium, the valves, and the heart-muscle itself, some form of which is present in 65·7 per cent. of the cases he has examined. The time when this inflammatory process occurs is the commencement of the renal affection. Now, the myocarditis may either leave the heart atrophied at once, or more commonly be followed by dilatation, owing to the diminished resisting power of the diseased muscle to the blood-pressure, and afterwards by atrophy.

As a fact not previously noticed, Von Buhl describes *a relative contraction of the aorta* in these cases, which intensifies the hypertrophy of the left ventricle. Hence he explains the increased arterial pressure and cardiac hypertrophy, not by granular atrophy of the kidneys nor by a general arterio-capillary fibrosis, but by the hypertrophy of the left ventricle and the relative construction of the aorta.

The other changes in the arterial system are sequelæ of the heart disease. The arterial fibrosis of the kidneys is also secondary. Lastly, it is possible that excessive muscular exertion, and especially that of the cardiac muscles, may lead to myocarditis, excentric hypertrophy of the heart, and other pathological changes met with in Bright's disease. Thus these conditions may be a not infrequent cause of this form of disease.

This short sketch of Von Buhl's new views necessarily excludes the data on which they rely for support, but his eminence as a pathologist must at any rate enforce their consideration, even though they deal roughly with current ideas.

THE REPORT ON THE HEALTH OF THE ARMY FOR THE YEAR 1877.

The nineteenth annual report of the Army Medical Department, on the health of the troops during the year 1877, has recently been published, the general results showing that in a total strength of 174,884 non-commissioned officers and men, the admissions into hospital were 165,371, and the deaths 1723. The rates represented by these numbers are, for admissions into hospital 946, and for deaths 9·55 per 1000 of the average annual strength, the latter rate being calculated on a strength of 180,351, which includes all men detached on duty, or otherwise. In that portion of the total strength above mentioned, serving in the United Kingdom, returned as 92,143, the admission rate was 7·3 and the death-rate 1·3 per 1000 lower than in the preceding year. In noticing the peculiar incidence of disease, we find that the Eastern district, as for the two previous years, furnishes the highest rate of admissions, which exceeds that for the next on the list (the Channel Islands) by 70

per 1000 of the strength, and that for Chatham, where the rate is lowest, by 498, or very nearly one-half. The Southern, South-Eastern, Channel Islands, Belfast, Dublin, and the Curragh districts have higher admission-rates than last year, but for the remaining districts the rates are lower. The South-Eastern district furnishes the lowest mortality, and the Home district the highest proportion constantly sick, and the longest average sick-time to each soldier; and although the Channel Islands district is second on the list for admissions into hospital, it shows the shortest average duration of each case in hospital. For all districts together the rate of admissions for syphilis is 0·8 per 1000 men lower than in the preceding year. In continuation of the statistical information with reference to the working of the Contagious Diseases Acts, given in the Reports of previous years, several tables have been compiled which conclusively show how the health of the troops continues to be benefited by this sensible piece of legislation; also in a paper prepared under the supervision of the Director-General of the Army Medical Department, for presentation to Parliament, it is shown that although the rate of prevalence of gonorrhœa in the first years of the application of the Acts did not materially differ in the protected and unprotected groups of stations (a point which the opponents of the Acts were not slow to seize upon), during the last few years the results are decidedly favourable to the subjected group, the rate for 1877 being one-third lower than that of the unsubjected one. The same paper contains a table showing the average number of men always in hospital on account of primary venereal sores at each of the groups of stations for the years 1870-77, the result being that the average rate of the subjected group is found to be less than one-half of that of the unsubjected.

The returns from foreign stations in most cases show average results of sickness and mortality. At Gibraltar the remarks made in the report of the medical officer in charge of the Royal Artillery, on some cases of simple continued fever, suggest the inference that in some instances another form of fever than that usually known as simple continued was treated. He notes that in some cases there was a rapid coming on of cerebral disturbance, effusion of serum into the ventricles, and at the base of the brain and in the spinal canal; that there were "glandular enlargements of the body," and he apparently refers to the same when he states that "in several cases purpuric spots appeared on the skin, especially that over the abdomen and thighs, like deep-seated partly-obliterated ink-stains, varying in size from half an inch to a point scarcely discernible." In the West Indies command the admission-rate exceeded that of the preceding year by 220·1, the death-rate by 12·20, and that of constantly sick by 8·99 per 1000 of the strength; but it should be stated that in the year under notice an outbreak of yellow fever occurred in Jamaica. In the Cape of Good Hope command, referring to diseases of the eye, it is stated that fifty-one cases of conjunctivitis were admitted at Pretoria, and thirty-one at Pietermaritzburg. At the former station the medical officer in charge can assign no cause, as there is very little sun-glare, and very little fine sand or dust in the atmosphere. At the latter the principal medical officer reports that there are frequent hot winds with dust, but the disease can scarcely be attributed to them, since in Cape Town, where the south-east wind blows for days together, raising clouds of dust, fine sand, and even gravel, the disease does not prevail, and only seven cases were treated in the hospital during the year. In the Mauritius command there was a very marked increase in the admission, death, and constantly sick rates; paroxysmal fevers contributed twice the number of admissions credited to them during the previous year, the greatest prevalence being in the second quarter of the year. It must, however, be noticed that a similar increase of prevalence took place amongst the civil population of the island, and with it a corresponding increase of mortality. The sickness and mortality were also greater amongst the troops stationed in the island of Ceylon during the year 1877; but although cholera was epidemic in several districts, only two soldiers were attacked, both of whom succumbed; each of them was young and had only just arrived in the command—an illustration of the well-known fact that new-comers in Ceylon are especially liable to suffer when this disease is prevalent. The China Command may be said to be divided into the Hong-Kong division and the Straits Settlements division; the admission-rate in the former was one-third higher than that of the preceding year—a circumstance chiefly referable to the increased prevalence of paroxysmal fevers in the 28th Foot, consequent upon its longer residence at the station. In 1876 this regiment, which had then only just arrived, suffered comparatively little from this cause. The death-rate for Hong-Kong is also higher in the present year, but three-fourths of the deaths were not due to disease, but to accidental drowning. The Straits Settlements division shows more favourable results than in the preceding year, with the exception that the invaliding-rate is higher. Both the general improvement, and the particular exception to it, are probably due to the same cause, namely, the discontinuance in 1877 of the field operations which had to be undertaken in 1876. A result of exposure in the field is the development of diseases which lead to eventual invaliding. The regulation sanitary reports from the principal medical officer of each station at home and abroad, as usual, conclude the volume; but there is an appendix, containing many papers of interest, communicated by medical officers of the Department, amongst which may be specially mentioned, "A List of Operations and Cases at Netley Hospital," by Surgeon-Major Porter; "A Report on the Jowaki Expedition," by Surgeon-Major Moore; and "A case of Sword-Bayonet Wound," by Surgeon-Major Turton.

THE WEEK.

TOPICS OF THE DAY.

With the view of advancing the movement for the establishment of provident dispensaries in the metropolis, a deputation of gentlemen connected with the Hospital Out-Relief Committee of the British Medical Association last week waited upon the Board of Management of the Metropolitan Free Hospital, to draw attention to the evils arising from indiscriminate hospital out-relief, as tending to the continued pauperisation of the poor by lessening their self-dependence, and as affording no real assistance in curing the diseases from which the greater number suffer. Mr. Timothy Holmes explained at some length the reasons which had induced the Committee to move in this matter. He contended that the present system was not necessary, and that its existence prevented any success attending the establishment of provident dispensaries, while it rendered almost useless the Poor-law dispensaries established under "Gathorne Hardy's Act." The Metropolitan Free Hospital, he said, was credited with 80,000 out-patients in the year, and he submitted that these numbers could not possibly be seen in a manner to give any real relief. Under such a system it was impossible that the medical man could give the patients what they came for—the advice and medicine by which they could be cured. What was necessary was that the out-patient department should be limited to such numbers as could be adequately treated, and that persons who could afford to pay for medical assistance should not receive it gratuitously. The Charity Organisation Society

were perfectly willing to lend their assistance in determining who were worthy objects for gratuitous relief. On behalf of the Free Hospital it was stated that there were no provident dispensaries in the neighbourhood, and the people did not care to be referred to the Poor-law dispensaries. Mr. Holmes showed that these difficulties might be easily surmounted. After some further discussion the Board of Management promised to give the views laid before them their fullest consideration.

It is announced that the Parkes Museum of Hygiene, temporarily located at University College, will be opened to the public on and after July 1 next. The inaugural ceremony will take place on Saturday, June 28, when a meeting will be held in the Botanical Theatre, under the presidency of Mr. Cross, the Home Secretary. Although so short a time has elapsed since the formation of the Museum, it already contains a very valuable collection of objects and apparatus relating to every branch of sanitary science, and with increased publicity its sphere of usefulness may be expected to develope considerably.

The Stafford House Committee have announced their intention of publishing a final report of the operations undertaken during the late Russo-Turkish war. The total amount stated to have been received from all sources was £43,750 12s. 4d., of which £42,841 18s. 6d. was expended, leaving a balance of £998 13s. 10d. The returns, including Lord Blantyre's Asia sections, show that 11,526 sick and wounded were treated in eleven hospitals, 33,366 in eight field hospitals and dispensaries, and 26,382 were attended to during transit by the railway and road transport sections, making a total return of 71,274; 106,940 rations were distributed at seven soup-kitchens, and 1708 poor convalescents were assisted on their way home with small money donations. The staff engaged consisted of three commissioners, forty-three surgeons, and a large number of dispensers, transport agents, and others.

A further addition to the now long list of coffee-taverns was made last week, when the Right. Hon. S. H. Walpole opened another of these establishments in High-street, Acton. In the course of the inaugural proceedings the right hon. gentleman remarked that many excellent persons in this country were of opinion that the vice of drunkenness might be effectually dealt with by Parliamentary coercion and prohibitory restrictions; but in his own mind he was confident that no attempt on the part of Parliament to remedy the evil could ever succeed. What Parliament could do in the matter it had already done, and any further legislation would only have the effect of setting the people in opposition to the law. They wanted some place of meeting where they could enjoy social intercourse without the temptation to indulge in excessive drinking, and this necessity these coffee-taverns amply provided.

The annual meeting of the Committee of Managers of the Home for Female Inebriates, which is situated in Ebenezer-terrace, Kennington-park, was held last week under the presidency of the Earl of Shaftesbury. The report showed that 72 per cent. of the inmates had been benefited and reclaimed—a most satisfactory result, when it is remembered that in America the highest recorded average has only been 40 per cent., provided the alleged benefits and reform prove lasting. Fifty-one of the inmates are stated to have been kept free of charge. The balance-sheet showed that the expenditure for the year under notice had been £2134.

Our contemporary the *Examiner* is responsible for the following:—"The advertising mania has assumed such large proportions of late years, that little astonishment is felt at tailors' poems, and hymns from patent pill manufacturers; but an advertisement extracted from a French contemporary, of which a translation is here given, has, as far as we know, not yet been attempted even in the English journal which weekly professes to chronicle the fluctuations and exchanges of a *bonâ fide* marriage market. It runs thus:—'A gentleman, thirty-five years of age, with 200,000 fr., *consumptive*, is desirous of marrying a young and pretty person with same fortune and *disease*, as he wishes to live quietly on the borders of the Mediterranean. Photographs exchanged.' That such a state of things should be, is indeed terrible news for the believers in the 'survival of the fittest,' for what the offspring of such a marriage would be is a problem worthy of solution by eminent professors."

The Lampeter Board of Guardians and the Local Board have had their attention called to the practice of holding crowded special prayer-meetings in houses and cottages where fever and other infectious diseases are known to exist. A case was cited at Llanfair, where a child died of an infectious disease, and a special prayer-meeting was held in the house, which was attended by a large number of people. The practice is said to be very prevalent in Wales, and when a death occurs (from contagious disease or otherwise) a "special" prayer-meeting in the house is calculated to draw a more than usually large congregation. The Lampeter authorities expressed an opinion that the medical officers should do their utmost to warn persons of the great danger arising from this practice.

An analytical chemist has written to the *Daily Telegraph* to call attention to an exceedingly dangerous use of arsenic. In a box of Kindergarten toys which he examined he found some cardboard slips for making letters. One side of these slips was covered with bright green paper, which, when analysed, was found to contain Scheele's green. The colour, moreover, was readily removable when moistened with the saliva, a fact which is of the more importance when it is remembered that young children are in the habit of putting such things into their mouths.

The Government of this country is decidedly fortunate in being able to reckon on amateur assistance in aiding its sick and wounded soldiers whenever war unfortunately breaks out; but it is a question whether this well-meant charity is not sometimes a trifle misplaced. In the recent Russo-Turkish war both combatants were notoriously deficient in their arrangements and appliances for mitigating the sufferings of the combatants, but no such accusation can be brought against the authorities of this country, since ample supplies of everything necessary have already been forwarded to the Cape to meet the emergencies of the existing Zulu War. Nevertheless, Stafford House has again taken the initiative in establishing a committee for the purpose of sending out aid to the sick and wounded there, and many of the aristocracy, including the Baroness Burdett-Coutts, have enrolled their names upon the Duke of Sutherland's list. At a recent meeting it was resolved to send £1000 at once to Lady Frere, and it is hoped there may be despatched by the next mail a first instalment of six trained nurses, able to teach others how to perform all the duties of attendance on the sick. In the matter of providing nurses the committee may at least be congratulated upon having done well, since experienced female assistance will be very acceptable to supplement the duties of the men of the Army Hospital Corps.

Petitions in support of Mr. Fawcett's resolution on the subject of the metropolitan water-supply are being numerously signed. Mr. Fawcett has announced his intention of calling the attention of the House of Commons to the deficiencies both in the quality and in the mode of supply of water in the metropolis, and to the serious burdens imposed upon the people of London by the increased charges of the water

companies; and he will move—"That, in view of the fact that the Metropolitan Board of Works has been unable to pass any measure dealing with the water-supply of London, this House is of opinion that it is a subject which ought, without further delay, to be dealt with by the Government."

The mean temperature of May at the Royal Observatory at Greenwich was 48·4°—the coldest known for the last forty-two years. The amount of rain was 3·4 inches, which is 1·4 inches in excess of the average. Thus it has been a very wet month, although not nearly so much so as was the corresponding month of last year, nor attended by such disastrous floods. It is a curious instance of the uncertainty of the relation between rainfall and temperature which subsists in the spring months, that, while the wet May of the present year has been almost unprecedentedly cold, the extraordinarily wet one of 1878 was attended by especially warm weather.

THE ORDER OF ST. KATHERINE.

Last week, in the board-room of the Westminster Hospital, the ceremony of investing the first three St. Katherine's Nurses with the Royal Badge of the Order took place. Her Majesty the Queen, as patron of the Hospital of St. Katherine, has been graciously pleased to institute the new Order, which will include the appointment of ten nurses. The candidates must have distinguished themselves, we believe, by good conduct and long service, and will hold their appointments for three years, removable at any moment on account of incompetence or misbehaviour. Each nurse will receive pay at the rate of £50 per annum, which pay is to be in addition to any salary she may be in receipt of from the institution to which she belongs. The Lady Augusta Stanley Institution is also to be paid £50 per annum for the sustenance of each nurse, and should the patron require the services of any of the St. Katherine's Nurses for a poor or other person, such nurse will have to attend the patient as long as necessary, without any further remuneration. The nurses selected for the honour proposed will wear a badge or armlet in the shape of an oval of white, surrounded with a border of bright green, the letters "St. K." being placed in raised gold in the centre; and this badge will continue to be worn by them as an honorary distinction after the completion of their three years' service. Should a vacancy occur from death, incompetence, or any other cause, it will rest with the patron to appoint another nurse to complete the number. The first three appointments were conferred on nurses belonging to the Westminster Training School and Home for Nurses, and the remaining seven are to be distributed amongst candidates from the Great Ormond-street Hospital for Sick Children and other metropolitan hospitals. The action of her Majesty in this direction will greatly help to give a useful stimulus to the art of nursing as a profession, and will do much to provide for the physician responsible custodians of the sick-chamber in his absence. For though very great strides have been made in improving the class of professional nurses since Charles Dickens drew the portrait of his Sairey Gamp, much yet remains to be done for the establishment of a class of thoroughly efficient and trustworthy attendants on the sick, whether the sufferers are found amongst the rich or amongst the poorer sections of the community.

THE DEATH-RATE OF DUBLIN.

The deaths registered in the Dublin registration district during the week ending May 31, 1879, numbered 309 (154 males and 155 females), and represented an annual mortality of 51·1 in every 1000 of the population by the census of 1871. The Registrar-General for Ireland, commenting on these facts, observes—"This unusual death-rate is owing to the circumstance that 137 deaths of persons interred in the several Dublin cemeteries during the first four months of this year were not registered until last week. These deaths, which form 44 per cent. of the total deaths registered during the week, came to the knowledge of the district registrars by means of the returns of burials which are now obtained under the provisions of the Public Health (Ireland) Act, 1878, sec. 191. The information acquired through these returns may cause an apparently high death-rate for a few weeks to come, but henceforth the returns will be furnished monthly, and they cannot fail to tend to the completeness of the registration of deaths in Dublin." The provision in the Act of Parliament referred to is as follows:—"The clerk or secretary, or registrar to every burial board and cemetery company, or other authority having charge of any burial-ground, shall make or cause to be made, at such times and in such manner as the Local Government Board for Ireland may direct, a return of the names, addresses, dates of death, and causes of death so far as ascertained by him, of the persons whose bodies have been interred in such burial-ground to the registrar of the district in which such persons resided at the dates of their deaths respectively, and such clerk, secretary, or registrar of each such cemetery company shall be paid therefor by the sanitary authority, during the period he is required to perform such duty, such sum as the Local Government Board may direct, not being more than threepence for each separate entry of death." One of the deaths registered in the week ending Saturday, May 31, was that of a grocer's assistant, aged twenty-two years, who died in the Richmond Hospital, Dublin, on May 23, from "hydrophobia from the bite of a dog inflicted March 16, 1879—inquest."

COLLEGIATE ELECTION.

The period for the nomination of candidates for seats in the Council of the Royal College of Surgeons having expired on Monday last, we are now able to publish the closed list. As already stated, there are four vacancies occasioned by the retirement in the prescribed order of Messrs. Clark, Critchett, and Wells, and by the death of Mr. Hilton. As neither of the two first-named gentlemen desire to be put in nomination, and the re-election of Mr. Spencer Wells is considered secure, there will be three absolute vacancies, for which the following gentlemen, taking them in seniority of fellowship, have been duly nominated, viz.:—1. Mr. Thomas Bryant, of Guy's Hospital—Member, August 6, 1849; Fellow, May 12, 1853. 2. Mr. Richard Barwell, of the Charing-cross Hospital—Member, October 6, 1848; Fellow, May 12, 1853. 3. Mr. John Wood, F.R.S., of King's College Hospital—Member, July 30, 1849; Fellow, May 11, 1854. 4. Mr. Henry Power, of St. Bartholomew's Hospital—Member, May 9, 1851; Fellow, December 1, 1854. 5. Mr. Jonathan Hutchinson, of the London Hospital—Member, August 2, 1850; Fellow, December 11, 1862. Taken according to dates of membership, it will be seen that these gentlemen come in the following order, viz.:—Messrs. Barwell, Wood, Bryant, Hutchinson, and Power.

THE MEDICAL OFFICERS OF HEALTH OF IRELAND.

In our letter from Dublin, last week, it was stated that one of the resolutions carried at the annual general meeting of the Irish Medical Association on Monday week, the 2nd inst., expressed disapproval of the action of the Local Government Board for Ireland with regard to the administration of the "Public Health (Ireland) Act, 1878," in not withdrawing the maximal scale of fees adopted under the "Public Health (Ireland) Act, 1874," and in not providing independent supervision. We understand that subsequently to the annual meeting a letter has been received by the Council of

the Irish Medical Association from the Local Government Board, stating that, having found it necessary to obtain the advice of counsel on several questions arising under Section 11 of the Public Health Act of 1878—which section deals with the appointment of medical officers of health and of medical superintendent officers of health—the Board have been advised that it is *desirable* to issue new orders in relation to the duties and salaries of the medical officers of health. We believe that the subject of the suggested new orders is now under consideration by the Local Government Board.

THE HEALTH OF CAMBRIDGE.

Dr. Bushell Anningson, the Medical Officer of Health for Cambridge, in his annual report for the year 1878, proves that the increase of population in his district is greater than is shown by calculating the numbers on the basis of the last census, but even with the advantage of a higher estimate of population he is compelled to report that the death-rate of the past year slightly exceeds that of its predecessor. The death-rate was 19·66, a result not alarming when compared with the rates of other towns, but it has some evil significance, Dr. Anningson thinks, in connexion with the decline in the birth-rate, which was only 31·14 per 1000 per annum. A curious point of contrast between 1878 and the previous year is, that in the latter year the total amount of sickness was greater, but of less fatal character; while in the former the total sickness was less, but the mortality high. Whooping-cough and diarrhœa, especially the latter, have proved the most fatal diseases, and enteric fever is credited with more victims than usual; in this latter instance an analysis of the cases points to the general typhoid infection of the sewers, since all the infected houses, except five, drained into the sewers, while rather more than half had the company's water, and of the pumps only a few gave distinct evidence of organic contamination. The willingness of the authorities of Addenbrooke's Hospital to admit enteric cases has proved a great benefit, as it allows the removal of the patients from their unwholesome surroundings and association with the healthy. Dr. Anningson regrets the want of a fever hospital at Cambridge for the reception of small-pox and scarlet fever patients, and it is somewhat singular that, with the whole University to protect, the authorities have not before this provided themselves with ample means for isolating any early cases of infectious disease. They have, however, seen the necessity for providing a disinfecting oven, which by this time is in operation. In due course greater sanitary works may perhaps follow, more especially as the past year has seen the introduction of a plan to divert the sewage of the town from the river Cam.

THE LANCASHIRE COUNTY LUNATIC ASYLUM.

The annual report of the Lancashire County Lunatic Asylum at Prestwich, for the year 1878, confirms the universally expressed opinion that increased accommodation for the insane is needed all over the United Kingdom. Mr. H. Rooke Ley, the Medical Superintendent, states that the admissions during the past year (364) show a decrease of seventy upon the previous year, because, owing to the crowded condition of the Asylum, only the most severe cases applying to be admitted could be received, and the majority of the patients refused admission had to be accommodated in the neighbouring Cheshire asylums. The Commissioners in Lunacy, in their report, also remark that the Asylum is exactly full, and it is therefore satisfactory to find that the general health of the community has been above the average during the year, and the mortality for the same period the lowest recorded in the history of the building, whilst the curative results compare most favourably with the records of previous years, the recoveries amounting to upwards of 58 per cent.—a ratio much in excess of that usually recorded in the institution. A plan is under consideration for building an annexe to this Asylum for the accommodation of harmless and chronic patients who are not fit inmates for workhouse lunatic wards, but who yet require the custodial restraints of an asylum; and if this be carried out it will be sufficient for the wants of the county, Mr. Ley thinks, for some years. The weekly charge for patients, which had been 9s. 11d. per head per week throughout the year, was reduced in the last month of it (December) to 9s. 4d. per head per week.

SURGEON-MAJOR J. H. REYNOLDS.

The following letter has been received by the King and Queen's College of Physicians in Ireland:—

"War Office, Pall-mall, May 15, 1879.

"Sir,—I am directed by the Secretary of State for War to acknowledge your letter of the 10th inst., reporting that in appreciation of the gallant and memorable services rendered by Surgeon-Major J. H. Reynolds, A.M. Department, in the action at Rorke's Drift, Zululand, the Honorary Fellowship of the King and Queen's College of Physicians in Ireland had been conferred upon him.

"In reply, I am to request you will express to the President and Fellows of the College, Colonel Stanley's gratification at the high distinction offered to Dr. Reynolds—a distinction, I am to add, which will be greatly appreciated throughout the Department.—I have the honour to be, Sir,

"Your obedient Servant, Ralph Thompson.

"The Registrar, King and Queen's College of
"Physicians in Ireland, Dublin."

THE "LEPER HOSPITAL," WATERFORD.

In the Chancery Division of her Majesty's Court of Appeal in Ireland, on Saturday, June 7, the Irish Master of the Rolls dismissed with costs, and in very strong terms of disapprobation, a suit by the Mayor, aldermen, and burgesses of Waterford for a new scheme of management of the hospital in Waterford known as the "Leper Hospital," which was founded in 1207, and is at present administered by nine trustees under a scheme drawn up by the late Master Litton, and approved of by the late Lord St. Leonards, in 1843. The Hospital is maintained "for the purpose of receiving and supporting not only those afflicted with a leprous disease agreeably to the foundation, but also such other sick, wounded, and disordered persons who were poor and indigent, and unable to support themselves." The new scheme proposed, among other things, to increase the number of managers to at least fifteen governors and trustees, with a managing committee of not less than seven, to be elected by the trustees and governors, with several *ex officio* members; and to admit paying patients.

ILLNESS OF SIR WYVILLE THOMSON.

We much regret to learn that Professor Sir Wyville Thomson is seriously ill. It is stated that on Sunday last he had an attack which, though not causing paralysis, was of so grave a character that he remained unconscious for many hours. We understand that Professor Alleyne Nicholson, of St. Andrews, will probably conduct temporarily Professor Thomson's classes in the University.

COLLEGIATE LECTURES.

Professor Hutchinson commenced his course of six lectures "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints," in the theatre of the Royal College of Surgeons, on the 11th inst., and will lecture on Mondays, Wednesdays, and Fridays, at four o'clock, concluding his course on the 23rd inst. We hope to place the substance of them before our readers at a later date.

MEDICAL OFFICERS FOR THE CAPE.

We believe that the following will be found to be a correct list of the Army Medical Officers recently ordered for service at the Cape of Good Hope:—Surgeons-Major Jackson (already embarked in the *Jumna*), Carr, Burnett, Murphy, and Parkinson; Surgeons Bushe, King, Ussher, Lloyd, and Sanders. The following have been directed to hold themselves in readiness, but are not yet under orders:—Surgeons-Major Skeen, Wood, and Jennings; Surgeons Fahey, Donovan, Martin, Leake, Geoghegan, Ward, and Stokes.

FROM ABROAD.

THE PARIS HOSPITALS MORTALITY RETURNS.

In Dr. Ernest Besnier's report for the first quarter of the present year (*Union Med.*, May 3, 8, 13, and 17), he observes that the second part of the winter of 1878-79 was, like the first, cold and damp, forming an interruption of the benign seasons of so many years. The mean temperature of the quarter was only +3·9° C.; while the mean figure of the corresponding season, calculated from 1806 to 1870, is +4·4°. The atmospheric humidity was great, and the height of rain fallen was 144 millimetres; the mean of the quarter, calculated from 1804 to 1872, being only 101 millimetres. Great abundance of snow fell, and gave rise secondarily to an extreme elevation of subsoil water—to which, probably, may be referred the production of some extraordinary typhoid foci (*foyers*) observed during the quarter. These atmospheric conditions were in direct and exact relation with the greater prevalence of disease during the quarter. The *general mortality* in the hospitals and hospices during the first three months of 1879 is represented by 3716 deaths, being 589 in excess of the mean mortality of the preceding seven years. This great mortality is due especially to pneumonia (which was of an extreme gravity), to the reappearance of small-pox, to the exacerbation of typhoid, and, in a general manner, also to the rigorous character of the season.

1. *Affections of the Respiratory Organs.*—These were both more numerous and more fatal than in the corresponding periods of former years. The percentage of deaths from *phthisis* (52 per cent.) was less than the mean (53·80) of the preceding eleven years; but it, being a chronic affection, is not comparable with the other acute affections. There were 554 cases of *pneumonia*, with 261 deaths, or 47·11 per cent., as compared with 36·30 per cent. of the former years. The mortality from this disease is always raised in hospitals by more than a third of its true mortality, the hospital population, enfeebled by alcoholism and a thousand other causes, resisting pulmonary phlegmasias but badly. Moreover, many aged persons are the subjects of other diseases, in the course of which pneumonia supervenes, and they are only brought into the hospitals to die. So, too, if a patient who is the subject of a chronic disease, which is even fatal, succumbs to a pneumonia, he is registered as dying not of the chronic disease, but of the intercurrent affection which has been the direct cause of death. Of *bronchitis* there were 1228 cases, with 105 deaths, or 8·55 per cent., as compared with 6·15 per cent. Of *pleurisy* there were 309 cases, with 30 deaths, or 9·70 per cent. only, as compared with 13·45 per cent.

2. *Diphtheria.*—In Paris the mortality caused by this disease has for some time past taken precedence of that of all other common affections; and this quarter, while small-pox has caused 151 deaths, and typhoid fever 320, it has caused 529.

"Whether the diphtheritic year, however, prove sterile or fertile, whether the annual epidemic be grave or benign, the disease none the less remains submitted to the law of seasonary evolution, which may be expressed by a simple and invariable formula, viz.:—Every year the permanent epidemic of diphtheria attains the lowest point of its curve in the third quarter, rises again during the fourth, reaches its paroxysm during the first, and again declines during the second. We are always able, then, taking a general view of the epidemic, as I have done for several years, to announce the mean epidemic course of the succeeding quarter. More than this, we may also, by comparing the curves of several successive years, establish a strong presumption for a much more considerable space of time, and discern whether the curve which the disease describes through years is an ascending or descending one. When I pointed out in my last report the diminution of diphtheria during 1878, I was able to say that this did not only depend upon one of those temporary abatements presented by epidemic curves, even in their ascending periods. And this I did from the sole fact that the mortality from diphtheria in the fourth quarter (which normally ought to have been superior) remained sensibly equal to that of the preceding quarter, which would have been an exception to a rule which I regard as absolute. Here is the verification of the proposition. From 365 deaths, the figure of the diphtheritic mortality of the fourth quarter of 1878, the mortuary co-efficient rose during the first quarter of 1879 to 529, which is the law—the rule, without exception, being that the mortality of the first quarter is greater than that of the fourth. But, in spite of this seasonary ascension, the multi-annual epidemic curve has become greatly lowered, since in the first quarter of 1878 there were (for all Paris) 703 deaths from diphtheria, and only 529 in the first quarter of 1879. These are results mathematically acquired, the generalised application of which would impart to epidemiology in all its parts a precision of which it has always stood in need."

In the hospitals, 233 cases of croup occurred, of which 181 proved fatal, being a mortality of 77·68 per cent., which is the mean mortality also of the cases that have occurred during the same quarter of the nine preceding years.

3. *Scarlatina.*—As usual, this disease has prevailed in Paris to a far less extent than in London, and indeed in that capital gives rise to fewer deaths than measles. This Dr. Besnier attributes in part to the much greater care that is taken in isolating the subjects of scarlatina than those of measles; but he finds himself totally unable to explain the immensely greater mortality that takes place in London from scarlatina as compared with Paris.

4. *Mumps.*—Another fact also found inexplicable is the occurrence of epidemics of mumps being confined to young adults of the military population. The living together in barracks easily explains the frequent transmission of the disease among them; but it is difficult to understand the radical difference observed among other young men employed or living together, as in workshops, religious seminaries, the superior colleges, etc. The numerous relations of epidemic visitations among the military seem to show that isolation has not been severely enough practised, and as by the present laws everyone must become a soldier, the disease acquires great importance in consequence of the frequency with which atrophy of the testis results from it.

5. *Small-pox.*—"Public opinion, including medical opinion," Dr. Besnier observes, "has been somewhat unreasonably excited by the exacerbation of small-pox, the imminence of which I had announced in opportune and useful time, without being much listened to. Early in the present year I had established the fact of the multiplication of cases of small-pox during the last months of 1878, and showed that the time had come for the institution of measures of public and private prophylaxis. No doubt could exist in the presence of multiple centres that an epidemic imminence was flagrant. Variola, which for several years had been extraordinarily sterile, had again become fertile—that is to say, the permanent variolic germs had again found, in the present conditions of individuals or of the soil, mediums favourable to their culture; or again, new germs of greater activity had been imported." Dr. Besnier complains that the provisions made for the isolation and transport of cases of variola are quite inefficient; and that too much reliance is placed upon meeting epidemics by vaccination and re-vaccination, universal submission to which in large cities cannot be obtained, while no sufficient supply of virus has been provided. The reality of the imminence of a great epidemic is seen from the fact that while in the whole of Paris there were only 89 deaths from variola in 1878, these amounted to 151 for the first quarter of 1879. In the hospitals the disease resumed an activity which it had lost since 1871, so that during the quarter there were admitted to the different hospitals in which means of isolation were provided, 340 cases, of which 52 proved fatal.

6. *Typhoid Fever.*—"The number of deaths from typhoid

(320, which occurred in the whole of Paris) during this first quarter of 1879 is notably superior to the mean of the corresponding period of the common years, which oscillates between 200 and 250. Again, this figure of 320 is also superior to the total of the deaths from typhoid in the fourth quarter of 1878, which is contrary to the law of seasonary evolution, and can only be explained on the hypothesis of the existence of extraordinary accidental foci (*foyers*). This hypothesis can be easily demonstrated to be exact by means of a statistical analysis. If the table which I have prepared of the mortality in Paris from typhoid during the first quarter be examined, it will be found that 72 of the deaths (a fifth of the number which took place in the whole town) happened in the seventh arrondissement alone. Now, this arrondissement consists of *quartiers* which are essentially military, as the Invalides, Gros-Caillou, École Militaire, etc.; and this allows of the supposition that there has been produced in this region one or more of those *military foyers* which are absolutely special and which explode at any time or place, independently of the general conditions of the season or of the general population. And this is just what has happened, for on analysing these 72 deaths occurring in the seventh arrondissement it is found that they comprise 54 military against 18 civil deaths. Even this military exception is itself exceptional for the entire military population, since, according to authentic returns which have been furnished me, there occurred only 78 deaths from typhoid in the entire military population during the quarter." Still, the civil population, although in a smaller proportion, furnished a greater number of cases and a greater mortality than the mean. Thus, while in the first quarter of 1879 there were 353 cases admitted, of which 90, or 25·49 per cent., proved fatal, the mean of the same quarter for eleven preceding years only furnished 302 cases with 59 deaths, or 19·53 per cent.

Treatment of Hæmorrhage in Abortion.

At a meeting of the State of New York Medical Society, Dr. Lusk, Professor of Obstetrics in the Bellevue Medical College, read a paper on this subject, which is reported in full in the *New York Medical Record* for March 8. He observes that not only are the directions given upon it in the text-books vague and unsatisfactory, but, judging from the number of exsanguinated and half-moribund women brought into his ward, the victims of indecision and halting practice, the members of the profession at large are but insufficiently informed as to the course they ought to pursue. With faulty management, death from abortion is of no infrequent occurrence, while a large amount of uterine disease is traceable to the same cause. And yet, when the abortion is not criminal or the patient wilfully careless, it ought to be free from peril; and death from this cause rarely, if ever, occurs in hospital practice where the patients are under direct control. Indeed, it is remarkable even in private practice how many cases do well by mere rest in bed and careful nursing; but, in fact, such cases are likely to mislead by encouraging a *laissez faire* practice which is in every way to be deprecated. The records of the Bellevue Hospital of some years ago show that a number of such patients were treated by rest, ergot, and the vaginal douche; but, although they all recovered, many had long histories of repeated hæmorrhages, fetid discharges, and local inflammation; while others were doubtless discharged with subinvolution of the uterus and uterine catarrh.

"I have nothing but words of praise and honour," Prof. Lusk observes, "for those who have contributed so much in the last ten years to perfect the practice of gynæcology. I regret, however, that the flattering interests their labours have excited have tended to weaken the interests in the sister departments of obstetrics. While our young men seem all desirous to make a speciality of the diseases of women, it is hard to obtain a hearing for the statement of the very trite fact that it is faulty midwifery which gives to gynæcology nearly all its importance. During the past five years I have left very few cases of abortion to the unaided efforts of nature. I not only never have had occasion to regret intelligent interference, but, contrasting my later cases with those in which the Fabian policy was adopted, the favourable results are such as to impel me to missionary efforts in behalf of bold and prompt procedure."

The conclusions of the paper are as follows:—1. In the first two months an abortion needs no special treatment, rest in bed for a few days being all that is ordinarily required. In the exceptional cases the hæmorrhages are amenable to the same treatment as those from the non-pregnant uterus. 2. In the third month no treatment is required when the ovum is expelled with intact membranes. All attempts to disengage it with the finger should be avoided; but when it is detained—in primiparæ perhaps for days, owing to the tardy dilatation of the os externum—this may be dilated by the index-finger, or even by incision through the ring of circular fibres. When the membranes rupture previous to expulsion, and hæmorrhage occurs, to restrain this within the narrowest limits is in every way desirable for the patient's future welfare; and immediate removal should be attempted, provided that the cervix be sufficiently dilated to admit the index-finger. The finger should be passed up along the side of the uterus, across the fundus, and complete the circuit of the cavity, pressing the detached ovum before it towards the os internum. At the same time pressure is to be made on the abdomen, gradually pressing the uterus down in the pelvis, so as to bring it within reach of the examining finger. This must be done slowly, and the patient's attention diverted, as hasty manipulation excites, even in the most willing of patients, the full resistance of the abdominal walls. When the uterus cannot be pressed sufficiently down, the hand may be introduced into the vagina; but the fingers are liable to become cramped. The relaxation produced by an anæsthetic renders the depression of the uterus easy. In the manual extraction of the ovum, deliberation and perseverance are the main elements of success. When the cervix is closed, the tampon should be employed. Any material may be used for this; but by far the most effectual procedure is that recommended by Dr. Marion Sims. A number of flattened discs, the size of a dollar, are formed from cotton-wool soaked in carbolised water, and then compressed; and these are introduced one after another, by means of a Sims' speculum and a dressing-forceps, and so packed from above downwards that the vagina is entirely filled. The tampon must be removed in about twelve hours; and if after washing out with carbolised water the cervix is still closed to the finger, it may be re-applied for another twelve hours. Applied for longer than twenty-fours, it irritates the vagina and gives rise to septic discharges. If the tampon prove ineffective, a sponge-tent, long enough to pass well up into the os internum, should be applied; and after from six to twelve hours the ovum should be removed by the finger. It is desirable to remove the decidua as well as the ovum. When the cervix is patent this is easy, as detachment has taken place, but as long as the cervix remains unchanged, detachment is usually incomplete. The separation is promoted by the application of the tampon, which stimulates the uterus to contraction. The ovum-forceps should not be introduced within the uterus, and requires great care, even when employed (with the aid of the speculum) for the removal of portions of the decidua detained in the cervix. 3. In neglected abortion, giving rise to recurrent hæmorrhages and fetid discharges, or even septicæmia and pelvic peritonitis, the removal of the detained placenta or membranes is urgently indicated. If the retained portions are still undecomposed, the cervix is usually found closed, and preliminary dilation by the sponge-tent is required before the finger can be introduced. This usually can be introduced at once when the ovum is decomposed. After its evacuation the uterine cavity must be carefully washed out with carbolised water. Although the finger is preferable to the use of the curette for the removal of retained portions of the ovum, yet this has its advantages when there exists extensive peri- and para-metritis. 4. In the treatment of "immature deliveries" (from the fourth to the seventh month) the tampon may be usually discarded, the hæmorrhage being controllable by compression of the uterus or by manual extraction of the placenta. In the fourth and fifth months, two fingers can be introduced; and in the sixth and seventh, half the hand.

Dr. Fordyce Barker, commenting upon this paper, fully bore out the statement of the great mortality arising from hæmorrhage associated with abortion; for in his own personal experience, while he has seen but one case of death from hæmorrhage during labour, he has met with from fifteen to twenty cases in consultation practice in which death was a consequence of hæmorrhage in abortion. The importance of arresting hæmorrhage in abortion has, to a

considerable extent, been overlooked by the profession—to say nothing of the large class of cases in which health becomes broken down by hæmorrhage, which, perhaps only moderate in extent, persists for weeks or months. Dr. Barker cannot agree with Prof. Lusk in his statement that abortions occurring during the *second* month require but little treatment, for he has several times met with profuse and even dangerous hæmorrhage at this early period. Still he admits that these are exceptional cases. In these cases the hæmorrhage may be arrested by injecting into the vagina large quantities of very hot water (104° to 110° F.). This will always arrest the bleeding; and manipulations for the removal of the ovum are never required, this coming away spontaneously, sometimes the day after, or the next day but one, absolutely without hæmorrhage. In cases of early abortion which have occurred two or three months before, and where the system has become broken down by a persistent daily loss of a small quantity of blood, Dr. Barker has found the wire curette most useful. Sometimes its application is allowed by one free hæmorrhage, but this entirely ceases afterwards. Speaking of the tampon, Dr. Barker says, "I never trust any kind of vaginal tampon, but always tampon the cervix uteri with a compressed sponge of proper size, and then only fill the vagina sufficiently to keep the sponge in place. This, if properly done, is certain to arrest the hæmorrhage, and in from eight to twelve hours the cervix is sufficiently dilated to permit the safe removal of the entire ovum."

REVIEWS.

Diseases of Tropical Climates and their Treatment; with Hints for the Preservation of Health in the Tropics. By J. A. B. Horton, M.D. Edin., F.R.G.S., Surgeon-Major Army Medical Department, etc. Second Edition. London: J. and A. Churchill. Pp. 696.

The writer of this work is, we believe, a native of the district whence he writes—Western Africa,—and may therefore be presumed, being a man of some education, to have something to say worth hearing, at least by those who are likely to visit tropical countries. It is, perhaps, a pity on this account that he has diluted the knowledge which is actually his own with that culled from sources of very various kinds, and in this way produced a book which, though larger, is probably less valuable than it otherwise would have been. The work is divided into three parts—the first dealing with fevers, especially of the tropical kind; the second with abdominal diseases prevalent within the same geographical limits; the third, certain constitutional and local maladies also frequently occurring in tropical regions; whilst in an appendix the subject of tropical hygiene is discussed in brief fashion. It is plain that such a work as this cannot be treated in accordance with the ordinary canons of criticism. The author has pursued his labours under exceeding great difficulties, and if there are slips here and there they must be looked at with a tender eye. The fact that the book has already passed through one edition cannot be overlooked; it shows—what might have been guessed at from a hint in the preface—that it has received at least a strong local support. Under such circumstances, all we have to do is to note the general character of its contents, to search out if there is anything absolutely wrong inculcated; and we are bound to say that this is not the case. Furthermore, though not representing such an advance in the knowledge of tropical diseases as is still so much to be desired, we are in a position to recommend it as strongly as we may as a useful handbook to dwellers or intending sojourners in Western Africa.

On Bronchitis and the Morbid Changes connected with it. Being Clinical Lectures delivered at the Middlesex Hospital. By Edward Headlam Greenhow, M.D., F.R.S., F.R.C.P., etc., Physician to the Middlesex Hospital. Second Edition, revised and greatly enlarged. London: Longmans. Pp. 327.

Some years ago now, Dr. Greenhow published a small volume of Lectures on Chronic Bronchitis, of which we had reason at the time to speak in terms of high praise. It is not very often that a work on such a special subject runs so quickly as this has done through its first edition; but the time, how short soever, which has elapsed has enabled Dr. Greenhow thoroughly to revise and materially to improve and extend the work thus dwelt upon. The former edition contained eight lectures: to these have now been added seven new ones, and these last deal mainly with subjects hardly or not at all included within the range of the former eight. Acute bronchitis in its various forms comes under consideration for the first time, and so do various states connected with it. In this way the volume is rendered much more complete, but still it seems to us that in another edition Dr. Greenhow has opportunities for increasing its usefulness. Let us first indicate the contents of the present volume. The various lectures are taken in their order.—1. On the Nature and Symptoms of Bronchitis; 2. The Causes and Varieties of Bronchitis; 3. Capillary Bronchitis; 4. Dry Catarrh; 5. Chronic Bronchitis; 6. Gouty Bronchitis; 7. Gouty Bronchitis; 8. Bronchitis and Phthisis; 9. Bronchiectasis; 10. Bronchiectasis; 11. Pulmonary Emphysema; 12. Pulmonary Emphysema; 13. Bronchitis and Diseases of the Heart; 14. Bronchitis and Diseases of the Right Side of the Heart. Two things immediately strike us as being intimately connected with the subject of this volume, and where Dr. Greenhow's large experience could not fail to be of public service. Thus, to take capillary bronchitis, or that form of bronchitis associated with typhoid fever: here we have conditions so closely verging on those of pneumonia, or in another set of bronchitic cases on those of pulmonary œdema, as to be by no means surely separable from them, and a description of them might well be associated with the maladies referred to in this work. Again, in many situations Dr. Greenhow refers to sudden attacks of dyspnœa coming on during bronchitic attacks; these are so closely allied to spasmodic asthma as to make it desirable that the one set should be contrasted with the other. Dr. Greenhow's experience on these subjects is well known to be extensive, and might well be incorporated in such a work as this, or embodied in a separate one. Meanwhile there can be no doubt that this is the standard work on the subjects of which it treats.

A Manual of Practical Chemistry: The Analysis of Foods and the Detection of Poisons. By Alexander Wynter Blyth, M.R.C.S., F.C.S., etc., Analyst for the County of Devon, and Medical Officer of Health for the North Devon Combination of Sanitary Authorities. With illustrations. London: Charles Griffin and Co. Pp. 468.

Mr. Wynter Blyth, already favourably known to sanitarians for his translation, or rather paraphrase, of Tardieu's work on Hygiene, with many important additions, now comes before us with a fresh volume, which is, as far as our acquaintance goes, *sui generis*. It is professedly an endeavour on the part of the author to naturalise among us a work on the lines of Sonnenschein's "Gerichtliche Chemie," or, as we would term it, Medico-Legal Chemistry; but he has departed wisely from the plan of the model.

In Sonnenschein the greater part of the book is devoted to the detection of poisons; but other parts deal with the detection of blood and seminal stains, the examination of hair and the like, the examination of forged or altered writings, bad money, the examination of the ashes of burnt bodies, footprints in mud and in snow, and so on. This occupies in the copy of Sonnenschein's work now before us 384 pages out of 555, the remainder being devoted to the modes of examining the more ordinary kinds of food, drink, etc., with a view to the detection of adulteration.

Mr. Wynter Blyth's work takes a somewhat different scope. He deals, as his title tells us, with foods and poisons only; and we are rather inclined to think that he might have done well had he limited himself to the former, and developed that more fully than he has done. There can be no doubt but that the institution of a class of skilled analysts all over the country will do much to improve the administration of justice in cases of suspected poisoning, but there is still a kind of lingering hesitation in trusting to them altogether; and the feeling among medical men is certainly to keep the analysis of foods suspected to be adulterated, and the analysis in cases of suspected poisoning, apart. Be that as it may, in the volume before us Mr. Wynter Blyth has entered largely upon both subjects, but his Manual—of what for himself, we fear, he most unhappily terms Practical Chemistry—halts between the two lines of action. It is not complete from the medico-legal point of

view, and it is not complete from the sanitary point of view. As regards the former, it lacks those minute and careful directions so necessary in the first stage of a toxicological inquiry; it lacks, moreover, the directions for examining blood-stains, seminal stains, etc. And, on the other side, there are wanting all directions for examining those first necessities of life—air and water.

But we have no desire to carp. Mr. Blyth has devoted much more space to that department of which he may be expected to have a special knowledge than Sonnenschein does—287 out of 455,—and we are quite sure that this will be duly appreciated. Of the care taken by the writer we can speak in the highest terms, and the amount of information here collected is enormous. Especially this is seen in the bibliography appended to each article, and not less so as regards the cases in point recorded in the part which we admire most, the sanitary division of the work. This cannot fail to be useful to all engaged in such inquiries. In some parts, however, the author tempts us to criticism where we might have allowed the matter to pass. In his preface he says, "In the article on milk will be found its composition in health and disease, and an account (as complete as the limits of the work will allow) of the real or supposed propagation of various maladies by its agency." But it will hardly be believed that, as far as we can find, there is no reference whatever to the now famous typhoid epidemic around Harley-street clearly traced by the late Dr. Murchison to milk, or to the epidemics of scarlet fever fairly well traced in Glasgow to a like source, to say nothing of other instances. These points, however, we do not urge against the author; they were strictly outside the scope of his book. Only, as it seems to us, he might have done much better by leaving the toxicology and such things alone, and extending the sphere of the former part of his book. Undoubtedly he has done himself great harm by labelling the book on its back "Practical Chemistry" merely, for those who may be familiar enough with such a title would little expect to find the contents of the character they are. We are quite sure that it only requires a little judicious handling to make this one of the best and most convenient books we possess.

Lehrbuch der Geburtshülfe für Aerzte und Studirende. Von Dr. Otto Spiegelberg, etc.

Textbook of Midwifery for Practitioners and Students. By Dr. Otto Spiegelberg, Professor of Medicine, and Director of the Gynæcological Department at the University of Breslau. Lahr, 1878. Pp. 874.

The book before us is the latest work upon the subject. It is complete, treating in a systematic manner every part of the field indicated by its title; and it is a very thorough book. On each topic we find an account of the latest work which has been done at it; and at the end of every section we find a very full, though not always complete, bibliography. It has, therefore, a great value as a work of reference; for anyone working at a special subject will thus both find here a digest of the most recent researches upon it, and learn where to look in order to investigate the subject for himself. It is marked, moreover, by independent thought and observation: it is not a mere compilation, but an original work of the greatest value.

It is at present inaccessible to those who do not read German; but we hope it may be seen in an English dress, and then will be the time to criticise it in detail. At present all we shall do is to give some general idea of the characteristics of the book.

A noteworthy peculiarity in which this treatise differs strikingly from the older midwifery works, and even from some modern ones, is the great fulness with which questions relating to pathology are treated, and the relatively small space which is given to questions of mechanism and manipulative detail. This is a very creditable feature; for not merely are these questions the most complex and the least understood, but they are those which have the widest relationship with other branches of medical science. It is in the pathological part of the book that its great merit lies. The author's mental bias is that of a physician rather than that of a surgeon. Were we to criticise in detail, we should differ most from the parts relating to operative procedures. For instance, we agree strongly with Dr. Barnes, that in difficult breech cases the right treatment is to bring down a foot; and that the blunt hook or other apparatus for the same purpose are only to be used in a tentative way when the child is small, and there may be, therefore, some possibility of getting it into the world without so difficult an operation as the one required, if this be impossible. We should have liked to see this insisted on more imperatively by Dr. Spiegelberg, and less said about the blunt hook, etc. Again, he not merely figures and describes the trepan, but recommends that it be carried in the obstetric bag. We must confess that we have never ourselves tried to perforate with this instrument, nor do we think that many English obstetricians have; but we carry in our own bag a perforator so much more efficient than any of those which Dr. Spiegelberg figures as alternatives to the trepan, that we do not think we shall ever be tempted to try the latter weapon.

Taking the book altogether, we think it is not merely the latest, but the most complete and exhaustive work upon the subject which has yet appeared. It is one which no teacher of midwifery should be without, and which no one aspiring to obstetric distinction can wisely omit to study.

Temperance, Abstinence, and Common Sense. By Harry Lupton, L.R.C.P. and M.R.C.S. Eng., Surgeon to the Stratford-on-Avon Infirmary. London: Arthur Hall and Co., Amen Corner, Paternoster-row. 1879.

The author of the foregoing pamphlet admits that it is intended for the general public, and not as a medium for discussing the question from a purely medical point of view; he has therefore carefully abstained from introducing professional language, and has made the few descriptions necessary to be introduced as clear as possible. The statement that "there is no evil without its attendant good" is, he says, as true of alcohol as of anything else, whilst if all substances which, taken into the body in excess, produce harm, were not to be used at all, nearly all the remedies of the British Pharmacopœia, including strychnine, quinine, and opium, would have to be abandoned. Unfortunately, the question of total abstinence is one which is rarely argued without exaggeration on both sides, but we can strongly recommend a perusal of Mr. Lupton's pamphlet to those who wish to learn the wide difference which exists between temperance and total abstinence, and can promise them that they will not find it "dry."

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, May 23.

Richard Barwell, F.R.C.S., Vice-President, in the Chair.

(*Concluded from page 633.*)

On Two Cases of Paralysis of the Serratus Magnus as a Part of Infantile Paralysis.

Dr. D. B. Lees read this paper. (The cases were shown at a meeting of the Society a few weeks ago.) Elizabeth M. was seized with general paralysis at the age of nine months. When brought to the Hospital for Sick Children the muscles in worst condition were those of the left shoulder and right leg. In most of the muscles of these limbs faradic response was absent, and in many of the muscles of the left leg and also in the right deltoid it was much impaired. After the child had been brought to the hospital for a few weeks, it was noticed that there was marked falling-in of the left side of the front of the chest during inspiration, instead of the normal expansion. The position of the scapula was found to be altered on the left side; it was drawn up to a higher level than the right scapula, the upper angle was drawn nearer to the spinal column, and the lower angle had left the chest-wall and projected backwards in marked contrast to the scapula on the other side. These symptoms seemed to justify a diagnosis of paralysis of the serratus magnus. On applying the electrodes of a battery over this muscle, a forwards movement of the scapula at once responded to a current from seventeen Leclanché cells on the right side, but no movement could be obtained by the use of a much stronger current on the left. It was possible that in this case the interossei were also paralysed, and certainly the rhomboidei

had suffered, there being no muscular resistance when the scapula was pulled forwards. The child's general condition had since improved, but the position of the scapula and the electrical reactions were nearly unaltered. Herbert P., aged twelve months, was found completely paralysed one morning early in December, 1878. When brought to the Hospital for Sick Children on December 20, it was found that in him also the parts most deeply affected were the left shoulder and arm and the right leg. The right deltoid also was decidedly paralysed. It was observed that the angle of the left scapula projected from the chest-wall. On turning the child on his back the left scapula fell away from the ribs. It was doubtful whether a less degree of a similar condition was not present on the right side also. Respiration was entirely diaphragmatic. There was no unilateral depression of the thoracic wall during inspiration. No response to electricity could be obtained in either serratus. This child had considerably improved under treatment. The right scapula was now in normal position, and the left nearly so. Some response to faradism had reappeared in both serrati, and both deltoids had regained much power. He could now raise the hand above the level of the shoulder on the right side, but was still unable to do so on the left. In both these cases the serratus was only one of many muscles paralysed, but the signs of its affection were distinct. Paralysis of this muscle was a rare condition, and Dr. Lees was not aware that attention had been previously drawn to it as an occasional complication of infantile paralysis.

Genu Valgum.

Mr. B. Brodhurst read notes of a case of this deformity. Lucy T., aged seventeen, was admitted into the Royal Orthopædic Hospital, on December 30, 1878, with very severe genu valgum and talipes varus of the right side, which had existed from the earliest childhood. The internal malleolus was ten inches and a quarter removed from the median line. A cast of the case taken on admission to the hospital was exhibited. On January 13, 1879, the biceps tendon was divided, and one week later the external lateral ligament of the knee-joint and the ilio-tibial band. After three days a long external thigh splint, with a cog-wheel, and with a Scarpa's shoe attached, was applied. On February 3, ether was administered, and the limb was somewhat extended. Afterwards gradual extension by means of the cog-wheel was made day by day without causing pain, and at the same time the talipes varus was overcome. On March 4 the knee was found in a straight position. The splint was removed, and another cast, which was also exhibited to the meeting, was taken. Mr. Brodhurst thought this one of the most severe cases of genu valgum he had ever met with; yet in seven weeks after an operation, which interfered with no bony structures, the limb was straight, and he reported that it was then strong enough to bear the weight of the body. There was also a certain amount of motion of flexion and extension at the knee. Mr. Brodhurst combated the supposition that in genu valgum there was lengthening of the inner and wasting of the outer condyle of the femur, and said that Professor Billroth also denied the existence of this pathological condition. He thought the operations of Dr. Ogston, Dr. MacEwen, Mr. Barwell, and that known as subcutaneous extra-articular osteotomy for genu valgum, were all liable to be attended with danger of inflammation, suppuration, and loss of joint-motion, and even with fatal results. He asserted that the deformity was not always removed by those operations, or that it recurred, or that a worse condition (viz., genu extrorsum), examples of which he had seen, was thereby set up. Recently, in such a case, after both inner condyles had been operated on he had found the inner malleoli nine inches apart. For these reasons he drew attention to the above described less hazardous operation of division of the biceps tendon and the external lateral ligaments, which he had never known to give rise to any ill effects, or to fail to remove the deformity.

Mr. Reeves congratulated Mr. Brodhurst on the result of his case up to the present, but thought it too early for it to be possible to come to any conclusion as to the ultimate result. He felt that perhaps he was egotistical in complimenting Mr. Brodhurst, because the operation adopted was that which was first adopted by him, and recommended in the *British Medical Journal* early last year. Langenbeck, who had divided the external lateral ligament for knock-knee forty years ago, had abandoned the method because it left a weak joint, and Mr. Reeves thought that the patient shown would have permanently to wear an artificial leg—i.e., an orthopædic support. He thought that all impartial surgeons were agreed that different cases of knock-knee required different treatment, according to the main cause of the deformity, and that in some cases MacEwen's or Barwell's plan, and in a large number the extra-articular mode, which he had done in very many cases, was the preferable plan, especially if the internal condyle were elongated, as occurred very commonly, and particularly in the frequent rachitic cases. He could not agree with Mr. Brodhurst's remarks as to subcutaneous osteotomy, as, in his own experience—which, he thought, all round, was, in this matter, larger than that of any other surgeon—although in a few cases there had been temporary effusion, there never had been suppuration, anchylosis, extrorsum, or a return of the deformity. He presumed that Mr. Brodhurst did not mean, as he had said, that the internal condyle was removed, because nothing of the kind was done, the condyle being simply pushed up out of the way. Mr. Reeves showed photographs of a case on which he had operated on Tuesday last at the London Hospital. Until this case was sent to him the case exhibited by Mr. Brodhurst was the most severe he had seen. The subject was a lad, aged seventeen, with right extreme genu valgum, the malleoli being thirteen inches and a quarter apart, and the affected leg four inches shorter than the left. The internal condyle was very much elongated, and the lower part of the femur much flattened. An extra-articular method was not attempted, and when the condyle was chiselled nearly through, and the biceps tendon divided, the limb was forcibly brought nearly as straight as the other. There had been some hæmorrhage and effusion, but this had disappeared, and the boy was that afternoon doing very well. It had been clearly proved that subcutaneous osteotomy in the continuity of bones, and the extra-articular method of it for knock-knee, was not dangerous. No mischief had occurred in any of Mr. Reeves's knock-knee cases, nor in any cases similarly operated on by other surgeons; and in the three cases of osteotomy of the tibia for rachitic curvature, which had suppurated, the ultimate perfect recovery with straightened limbs was but slightly retarded. The modern rapid method had certainly done indirect good by inducing orthopædic surgeons to adopt more speedy means, such as tenotomy, followed by immediate forcible straightening. The advantages of subcutaneous osteotomy were—putting the limb straight at once, saving much time in the treatment, and dispensing with any subsequent apparatus.

Mr. Gould said the weakness of the knee was not due to lengthening of the external lateral ligament, but to elongation of the internal lateral ligament.

Mr. Barker had recently examined all the recorded cases in England, France, and Germany, and had found that not a single death or instance of ill-effects arising from osteotomy in these cases had occurred after any of these operations—not even after Dr. Ogston's, which was, perhaps, the most serious. He was, of course, excepting the single fatal case following Ogston's operation which he himself had already recorded in this Society during the present session.

Mr. Howse said that it would be a great pity if suppuration, anchylosis, or death should follow any of these operations, and not be recorded. He had done ten operations of the kind himself, and seen several more done by other surgeons, and had never seen any bad results follow. Moreover, no orthopædic apparatus was required after the operation had been performed. Mr. Brodhurst seemed to have been under misapprehension altogether as to the nature of Ogston's operation; the internal condyle was not removed, only shifted. Further, the division of the lateral ligament gave the patient a sense of insecurity, owing to the looseness of the parts about the joint. One could scarcely judge of the result of the operation until after about four years. Up to the present time the results seemed to be by no means so successful as they would have been seven weeks after an Ogston's operation.

Mr. Brodhurst said he had now done this operation for six years, and that nothing could be better than the result in some of his earlier cases. The external lateral ligament was not stretched, but divided, and the limb was gradually, though somewhat forcibly, brought into good position. Langenbeck had given up the operation because he had not the means in his day of applying afterwards the necessary instruments. Mr. Brodhurst now introduced his patient,

who could not walk except with her orthopædic apparatus applied.

Mr. Marsh suggested that she should be brought for a second inspection at the end of another year, or during the next session of the Society.

Mr. Barker thought that in such cases there was a great tendency to recurrence of the disease after a time. Mr. Brodhurst had said the internal condyle of the femur was not elongated, but in a very able paper in *Langenbeck's Archives* accompanied by pictures of sections of the bones, there was undoubtedly such elongation; as also there was in a case of the kind recently seen at his (Mr. Barker's) own house.

The Chairman said that if Mr. Brodhurst had brought down the other patients operated upon six years ago, it would have been of great interest to the surgeons then present. It was difficult to see how the external lateral ligament could again become strong. The joint was now very loose, and he did not think it possible that the patient would be able to walk for some time without wearing the orthopædic instrument.

Mr. Brodhurst repeated that his opinion was that of Billroth, who had said that the internal condyle of the femur was not elongated in these cases. He promised that the patient should be brought again, and thought it probable that the instrument would have to be worn for some time to come.

Gas in the Peritoneal Cavity in Typhoid Fever, relieved by Puncture.

Mr. George Brown read a paper on a case as above. The patient, a young man, aged twenty-one, was under Mr. Brown's care for typhoid fever in October last. The temperature was high throughout, ranging from 102° to 105·2° during the height of the fever. The case was complicated with double pneumonia. In the third week of the fever tympanites developed, which was at first localised to the parts of the abdomen occupied by the intestines, but a few days later the physical signs indicated that gas had escaped from the intestines into the peritoneal cavity, or was being generated in the cavity itself. The distension of the abdominal wall gradually became more and more extreme, the tympanitic note entirely masking the hepatic and splenic dulness, and could be elicited over the sternum as high as the articulations of the fourth costal cartilages. Through upward pressure on the diaphragm there was urgent dyspnœa, the respirations reaching as high as 50 per minute, and the heart was displaced upwards and outwards, so that the apex-beat was half an inch outside the nipple and in a line with it. Mr. Brown pierced the abdominal wall with a small aspirator trocar an inch below the umbilicus, and on withdrawing the canula a rush of gas took place which continued for several seconds. The gas was odourless. The relief was immediate, the heart regained its normal situation, and in a few minutes the respirations fell from 50 to 36 per minute. No ill-effects followed the operation. The patient succumbed, however, from the lung complications thirty-six hours after. As to the source of the gas, Mr. Brown dismissed the idea of perforation of the intestine on the following grounds, viz.:—1. The gradual development of the gas in the peritoneal cavity. 2. Absence of symptoms of collapse which might have been expected had perforation taken place. 3. The fact that the tympanitic condition of the colon and small intestines was unrelieved by the operation. Had perforation existed, gas would probably have continued to escape into the peritoneal cavity after the operation, but of this there was no evidence, although the patient lived thirty-six hours afterwards. 4. The fact that the gas was odourless. Mr. Brown advanced two theories as probable sources of the gas: first, the gas might have passed by diffusion through the intestinal wall; or, second, the gas might have been derived directly from the blood by exosmosis through the delicate walls of the peritoneal capillaries—and this was the more probable, from the fact that for several days previous to the distension taking place the blood was highly charged with carbonic acid gas in consequence of imperfect aëration in the lungs. Mr. Brown said he was unable to decide this point, and preferred to merely record the case in the hope that other observers would be able to throw more light upon the subject should similar cases occur in their practices.

A Member stated that he had seen two such cases. One occurred in a child who had scarlatina; the abdomen was perforated to allow the gas to escape, and the child died. In another case no perforation was performed, and the child recovered.

Dr. Coupland also made a remark; and

Mr. Brown replied. He thought the gas was probably carbonic acid gas.

Amussat's Operation in a Case of Imperforate Rectum.

Mr. Morrant Baker read notes of a case of imperforate rectum, for which Amussat's operation was performed, in a female infant, who, when nineteen days old, came under the care of Mr. Morrant Baker, at St. Bartholomew's Hospital. When first seen, the abdomen was enormously distended; there was frequent vomiting, and the child was much exhausted. Chloroform having been administered, an attempt was made to find the lower end of the bowel, through the short *cul-de-sac* which represented the anus. The bowel, however, could not be found, notwithstanding very free incisions; and in spite of the great distension of the abdomen, no bulging of the parts could be detected, even during the action of the abdominal muscles. It was decided, therefore, after a consultation, to desist from further operative procedures in the neighbourhood of the anus, and to perform colotomy by Amussat's operation in the left loin. This operation was accordingly performed. Meconium freely escaped, and within a few hours the infant was greatly relieved. An elastic tracheotomy-tube was inserted into the bowel through the wound in the loin, and had been worn continuously ever since. In this way all troubles which might have arisen from contraction on the one hand, or prolapse on the other, were avoided. A year after the operation it was noted that the child was well and wore the elastic tube; fæces passing only once or twice in the week. The abdomen was, however, not distended. Two years after the operation the note was the same, and the child, now nearly three years old, was shown to the Society, perfectly well in health, and still wearing the elastic tube in the loin. Instances of recovery, it was remarked, after the performance of colotomy for the relief of imperforate rectum were curiously rare, and probably the case shown to the Society was the only one now in this country. The question as to the best operation to be performed in cases of imperforate rectum, in which the bowel could not be found at the outlet of the pelvis, was discussed, and Mr. Baker thought that, on the whole, a preference should be given to Amussat's rather than to Littré's method of colotomy.

Mr. M. Baker, in answer to the Chairman, said that a probe had not yet been passed down the bowel towards the anus, to find the termination of the intestine. He hoped to bring the case forward again at some future day.

Mr. G. Brown thought that the operation in the infant in these cases might usually be deferred until actual bulging of the distended bowel occurred, as it was then more easy to cut down upon it and find it. He had kept a child under observation for ten days before bulging had occurred, when the operation was performed.

The Society then adjourned.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, June 4.

W. S. Playfair, M.D., F.R.C.P., President, in the Chair.

Adjourned Discussion on the Use of the Forceps, and its Alternatives in Lingering Labour.

At this meeting the discussion on the use of the forceps was continued, and again adjourned till the meeting in July.

Dr. Edis: In moving the adjournment of the discussion, I feel sure I but express the wish of many present that we should have a still greater length of time devoted to the consideration of a subject so ably and so exhaustively introduced by one whom we are all pleased to honour. The subject itself is of great importance, not only to us as a profession, but to the public at large, and to countless thousands of children yet unborn, whose prospects of existence depend upon the management of their mothers during their entrance into this world. The last published accounts of the Registrar-General for 1876 tell us that in England alone over 4000 mothers succumbed to the accidents

or diseases incidental to childbirth, to say nothing of another thousand who died after childbirth from various diseases not referred either to childbirth or to metria in the abstract. This is no great fatality for one year, for during the last thirty years—from 1847 to 1876—an average of 3500 per annum have, alas! gone over to the major part by accidents and diseases of childbirth; and, therefore, any consideration that we can give to this subject I am sure will not be thrown away. When we consider that we are dealing, not with the statistics of any severe disease of whose bearings we know little or nothing, but with the carrying out of a mere physiological function at the time the powers of life are presumed to be in full working order, and where, in the majority of instances, it is under skilled supervision, I think we must reproach ourselves somewhat that the mortality still keeps up to the extent that it does. The triumph of modern surgery is its conservatism, that of medicine its preventive aspect, and unquestionably the direction in which we must labour to bring obstetrics up to a corresponding footing is to endeavour to avert the dangers and difficulties likely to beset us, and not so much to rely upon our treatment of those actual dangers when they have been allowed to come into existence. The question, then, before us is the prevention and management of lingering labour, especially with reference to the employment of the forceps and its alternatives. Let us take them in the order in which Dr. Barnes himself has given them. And first we take expectancy. Now, expectancy is all very well, but unfortunately we leave too much to our patient, and too little to ourselves. How often does it happen, when we are summoned to the lying-in room, we find, instead of our patient having been put into proper training, as is usual in the case of a race or any muscular effort which one might be called upon to go through—how often do we find her in this state: that her sleep for a long while past has been disturbed, that her digestion has been interfered with, the functions of the body not properly performed: and yet we expect that patient to go through what is after all a very trying process. But, supposing we have taken some little pains to see that our patient is brought into a proper state to go through labour, then I contend much may be done in seeing that she does not expend her powers fruitlessly. How often do we find that hour after hour and day after day goes by, and still our patient is in the agonies of childbearing. Unfortunately, it seems to me, the practice of obstetrics appears to engender in the minds of many a tendency to trust implicitly to nature—to wait and watch to see what will come of it. We prescribe largely, as has been said, the tincture of time instead of applying the essence of others' experience, and very frequently allow our patient to get into such a condition that all our efforts are fruitless to rescue her. Therefore, in taking up a subject like this, I think our attention should not be altogether limited to the question of what by many is considered a *dernier ressort*. I consider myself that the forceps is an aid to labour, to supplement the defective arrangements of nature, if we may so say, and that we have no business to treat it as the *ultima ratio*, as it were, which is looked upon with such great dread, or was until recently. If forceps were only used judiciously, and when the occasion properly demands it, I feel sure that many would not only sanction it, but look forward to its help in their time of difficulty. Expectancy, as I say, may be carried too far. The moment we find the least evidence of flagging power, of any cessation of pains, any intermittence in the regular beat, or any acceleration of the patient's pulse, or any general evidence of the patient having had more than she can fairly compass, I think we are bound in duty to assist the patient, and not to allow her to go on until she is in powerless labour. Then the question will arise, What shall be done? There are many simple expedients that I fear are too frequently overlooked. Dr. Matthews Duncan has shown us that, under ordinary circumstances, the mere propelling force of labour is about forty pounds; and in any extraordinary case of labour, where unusual effort is made, the propulsion exercised by the uterus or by the abdominal muscles, with the voluntary efforts that the patient herself can make, does not exceed eighty pounds. Now, I think, as our President has so ably pointed out in his late systematic treatise, we have within our power a very simple expedient by placing the patient in any position—in the ordinary obstetric position on the left side or on her back, or in any position,—that by pressure upon the uterus externally we can very frequently apply an equal if not a greater pressure than that which nature herself is expending upon the process. We can in this way exert a pressure of from sixty to one hundred pounds. This can be tested by a spring balance, and determined as a simple matter. I think in many cases we may assist our patient very materially by exercising a certain amount of compression. Then, in too many cases, I feel sure the binder is too much neglected. I often suggest to a patient, "I think we will have a binder," and sometimes both nurse and patient seem to think that one is doing something very extraordinary. I appeal to those present whether in their individual experience they are in the habit of applying the binder to patients before the child is expelled. Then, supposing this simple means fails, and we have taken care that the patient is not utterly exhausted from want of nourishment or occasional rest, by giving her an hour or two's sleep, then, having exhausted those means, I think the question will naturally arise, "Shall we give her ergot or apply the forceps?" For myself I consider ergot not only an uncertain but a very treacherous remedy. In many instances it exerts a power far greater than we had the intention of giving, and by doing that we are simply encouraging the very dangers we are so anxious to escape—that is, rupture of the uterus, the tearing of the soft parts, injury to the mother, or death of the child, or actual compression of the uterus; and I think after the nervous force that supplies the uterus has been expended for many hours in contracting the uterus, and when the powers begin to flag, it is very unphilosophical of us to attempt to stimulate it; it is far better for us to supply some extra force. That can be done, without any attempt to stimulate the already overtaxed and overworked muscular fibres, by the application of forceps. The thing is as simple as possible. Unfortunately the education at the present day, or up to the present day, has been so neglected in this department that many men do not feel themselves competent to apply forceps, and therefore give ergot. I think this obstetric education is at the root of a great deal of misunderstanding as regards the utility of the forceps. Now we will go on a little further. "The chief contest turns upon the use of the forceps in the second order of cases. Does lingering labour occur so as to entail danger to mother and child during the first stage of labour?" I believe, in conjunction with many who are called consultants, that we can see things from a standpoint that others look at from a totally different bearing. I can answer this question unhesitatingly in the affirmative, that lingering labour does occur so as to entail danger to the patient. Not long since I was asked to see a patient in consultation who had been allowed to go on for three consecutive days and nights in labour. The practitioner's explanation was that the os was not dilated, and when I explained to him that the membranes had ruptured sixteen hours after the commencement of labour, he saw the difficulty at once. I succeeded in delivering the patient, and could have done so, in all probability, some two or three days or nights previously. Dr. Barnes asks: "Is the application of the forceps ever necessary or useful before the full dilatation of the cervix uteri?" This is the most important of all, and I wrote to Dr. Johnston asking him if he would entrust me with any views he might have bearing on this part of the question. From his letters to me I have extracted a few remarks which I think are worth recording. He says: "I beg leave to say, in answer to the first query, I consider that the forceps are necessary and useful before the os is fully dilated, in order to avoid danger to the mother, in cases where the liquor amnii has escaped at the commencement of labour, which would otherwise accrue by the pressure of the child's head upon the cervix, particularly when it is retained at the brim, and more so where, through any cause, there may be delay. This danger may also occur in cases where, although the membranes are unruptured, the waters remain above and the fœtus descends upon the cervix. In such cases the forceps is equally necessary, as by its timely use you prevent the liability to inflammation and sloughing, and, mayhap, complete separation of the cervix from the body of the uterus, and death, as in one instance occurred with myself, and was the reason which induced me to adopt the method. The danger to the child, particularly when the liquor amnii has escaped, is from the frequent uterine action of the labour pains producing compression of the placenta to such a degree as to prevent the circulation of blood through the organ, and this causes the death of the fœtus. Another

reason for the timely aid of the forceps is in cases of extremely nervous, delicate females, so ill able to bear the exhaustion and fatigue of the labour pains (even though they may not be protracted to any lengthened period) and from which they so slowly and with such difficulty are brought to convalescence. In such cases the early application of the forceps is attended with the most beneficial results, as I have frequently experienced. These, among others, are the principal reasons why I advocate the measure. I may add that since the expiration of my mastership of the Rotunda Lying-in Hospital in 1875, I have performed the operation in several instances under the foregoing circumstances, and have every reason to say that the more I have done so the more am I convinced of the great advantage I have derived from the practice." I do not hesitate to read these remarks, coming as they do from such an important authority, although I believe Dr. Johnston is represented here by one of his late assistants, whom I hope we shall have the pleasure of hearing shortly; and I think also it is only fair to Dr. Johnston that they should be read, especially as his name has been called in question. He says further: "On looking over Dr. Barnes's paper on the use of the forceps when the os is undilated, I would wish to draw attention to a few of his observations. First, I perceive, when speaking of the application of the blades, he says 'this is generally not very difficult.' Now, fearing that this might lead the casual reader to think lightly of the proceeding, I should wish that it be distinctly understood that although there may be no difficulty, still the greatest care should be taken and nicety observed in the introduction of the blades, lest the point may slip outside the os, and be pushed into the posterior *cul-de-sac* and through the peritoneum, thus causing considerable injury, attended with the most dangerous consequences. Secondly, in his allusion to traction, he says, 'if the os is dilatable.' I may state that under no other circumstances is the operation justifiable. When there is not that danger, which he states, 'of dragging down the whole uterus and child,' in any way, we always found the os gradually yield under the gentle traction which, until it is expanded, should only be employed. In no instance of the 169 cases recorded did such an occurrence take place. Thirdly, speaking of the length of time occupied in the delivery of the child being 'an hour or more,' I have only to say that in our cases the duration of the operation did not extend beyond twenty to thirty minutes, except in one instance (that of a case of deformity from an exostosis at the brim), when it lasted three-quarters of an hour, in a woman in her ninth pregnancy. The child, a female, weighed 7 lb. 12 oz., was born alive and lived, in whose head there was a depression of the left parietal bone three inches and a half by one and three-quarter inches in breadth, and three-eighths of an inch in depth. Both mother and child went out well on the twelfth day. Fourthly, he mentions the amount of bruising of the soft parts and tearing of the os uteri. Now, I can say that in our practice there was none, if I except the case of sloughing of the vagina mentioned in the reports, and which was caused by the too frequent examinations made during labour before the operation. And as to the tearing of the os, in all the cases which died, on post-mortem examination the os was found not more bruised than what would have occurred in primiparæ during ordinary labour. Fifthly, in his remarks as to the 'increased amount of suffering during the dilatation,' I beg to say that we avoided it by (as was our invariable rule) putting the patient under the influence of chloroform before proceeding to operate. And with regard to the 'liability to retention of the placenta,' we had only two instances, one from morbid adhesions and one from irregular contraction; and as to its 'predisposing to the danger of post-partum hæmorrhage,' the number of cases in the 169 recorded where post-partum hæmorrhage followed amounted to four, but they were of so trifling a nature that two were quite convalescent and able to go out on the eighth day, one on the ninth, and one on the tenth day. This last was in delicate health on her admission, so that I consider it must be allowed that in our practice, at least, there was not that predisposition. I have merely to say with what pleasure I have read Dr. Barnes's paper, and cannot conclude without expressing my gratitude to him for having taken such a considerate and rational view of the practice, feeling certain that in course of time the early use of the forceps in skilful hands, so far from it being attended with danger, will be proved to be of the greatest advantage in saving the life both of mother and child." It is only a very few years since I brought before the Society my own views on the subject of forceps, therefore I will not occupy your time any further, seeing that we have with us several eminent Fellows who honour us by their presence, and will, I hope, take part in the discussion. I trust, however, that the question will not be discussed entirely upon the forceps itself, but that we shall consider the alternatives both as regards prevention and the management of lingering labour when it has been allowed to occur.

Dr. Lombe Atthill (Master of the Rotunda Hospital, Dublin): It is with very considerable diffidence that I take any part in this discussion, for several reasons. The principal one is, that my views are so very much in accordance with those which have been already so ably and clearly put before you by my friend Dr. Barnes that I really have very little to add; but, sir, I felt that the repeated and pressing invitations which have been kindly given me by your secretaries and by Fellows of this Society should be responded to. Occupying as I do the position of Master of the Rotunda Hospital, the greatest school of clinical midwifery in this kingdom, I felt it was my duty to state what our practice was, and what my experience in the question under discussion is. Since I was appointed in November, 1875, we have had about 4000 patients delivered in the Hospital. The exact number up to May 1 last delivered in the Hospital during my mastership was 3958. Of those patients, 279 were delivered with the forceps—in round numbers one in fourteen. In our extern maternity, during the same period, we had 2486 deliveries, of whom eighty-five were delivered with the forceps, or one in twenty-nine. You will remark that our deliveries by the forceps in the Hospital are just double those in the extern maternity. But, sir, in estimating the inference to be deduced from these figures, it is necessary to bear in mind of what class our intern patients are composed. In the first instance, a very large majority of them are primiparous; and I need not say that in cases of primiparæ the forceps are more frequently used. Next, we have a number of patients who seek admission because they are cases of difficulty. Admission to the lying-in wards of the Rotunda Hospital is absolutely free. The consequence is, if a woman has been a long time in labour, and becomes alarmed at her labour being tedious, she may herself seek admission, and is at once admitted. Again, patients are sent in to us by general practitioners and by the poor-law medical officers simply because they are cases of difficulty. Moreover, from time to time patients are admitted from the provinces simply because their previous labours have been difficult or dangerous. Now, what the exact proportion of patients coming under this class is, we cannot say with certainty; but suppose that only some twenty are admitted in the year, even that number would considerably modify the inference to be deduced from the figures I have given you. I make these remarks because I consider the proportion of one in fourteen is rather large if taken on an area of general practice, and it is my wish, if I can, to prevent the undue use of forceps in cases in which they are not absolutely necessary. But, sir, if any aid is necessary to midwifery, I feel that the forceps is superior to any other. With respect to the administration of ergot, it is absolutely given up in the Rotunda—I may say prohibited, because we do not allow it to be given in the extern maternity any more than in the Hospital. With respect to the compression of the abdomen, that is a practice which I must say I consider at least unscientific, and calculated to be very injurious. As to the introduction of the fingers in the rectum with a view of expelling the head, it is a proceeding calculated to injure the soft parts of the mother; it is most irksome to her, and I suppose equally irksome to the practitioner himself. But on this point—that is, the use the forceps when the head is low in the pelvis—I think that there is nearly a unanimity of opinion, as far as I can judge from reading the discussion which has taken place in this Society. The real question at issue is, whether the use of the forceps is justifiable in cases in which the os is not fully dilated. Now, I do not think it is possible that any practitioner of experience who has thought over this subject would say that the forceps should not be used because the os is not fully dilated. I use it, but in as few cases as possible. When the head is low in the pelvis and the os fully dilated, we have no hesitation in applying forceps, and, I believe, rightly so; but when the os is not

fully dilated, no matter whether the head is above the brim or, as is sometimes the case when a fœtus is small, when the head is low in the pelvis, I object to use forceps unless the condition of the mother is such as, in my opinion, warrants its use. As an illustration, I will mention a case which occurred just before I left Dublin. A woman had been six hours in labour with her first child. The waters were five or six hours evacuated; the os nearly fully dilated, but not quite; the head just at the brim; the os soft and dilatable; the patient getting exhausted and restless, saying, "Oh, how tired I am!" the pulse risen in two hours from 80 to 105. In this case I applied the long forceps (and I may here say the forceps we invariably use are those known as Dr. Barnes's double-curved forceps). I delivered the patient, with the greatest facility, of a living child, both mother and child being now perfectly well. I am, however, satisfied that a certain number of practitioners under-estimate the danger which may occur from too early use of the forceps before the os is fully dilated, and I believe that is due to the fact that they do not distinguish between the two very different classes of cases with which they have to deal. In some cases the os is so soft and easily dilatable that delivery is effected with the greatest possible ease and safety. In some cases it appears to me that to talk of the os not being fully dilated is really hardly correct. Over and over again I have watched a case in which the os could be distinctly felt. Keep your finger in contact with the os uteri, and as the pain comes on it will all but disappear; but if the pain is inefficient the head will speedily recede as the pain goes off, and the os contract to the same condition as before. I have watched such cases a considerable length of time, and these are those cases in which one is tempted simply to apply forceps—a perfectly safe proceeding, but a most unjustifiable one; but it is far different with another class of cases. I think we are too much in the habit of talking of the "os uteri being dilated," or "undilated," as if the os were a mere rim, to dilate which all difficulty was over. But in point of fact we should in most cases speak of the "cervix" rather than of the "os uteri": the whole lower segment of the uterus has to dilate during labour, and it is this undilated cervix which often opposes us. I have more than once applied the long forceps when I thought I had to deal with the os only, and found that my efforts to deliver were opposed by the condition of the cervix. The whole uterus descended as traction was being made, till the lip of the os appeared at the very ostium vaginæ. These were cases in which delivery had become imperative; but consider the pressure to which the cervix must have been subjected between the child's head and the pelvic wall before delivery could be effected, and how great was the danger of laceration of the cervix. This induces me to avoid the use of the forceps before the os is fully dilated in all cases in which I can do so; but, on the other hand, if a case occurs in my practice in which I believe it imperative to deliver the woman before the os is fully dilated, I unhesitatingly have recourse to the use of the forceps, notwithstanding that the os uteri is not fully dilated. I believe that practice is safer than the practice of version, and I say that with a certain degree of confidence from a not very limited experience. I know the difficulty which I have experienced more than once in endeavouring to bring down the head through an undilated cervix, which has tightly grasped the fœtus round the neck, and I have no hesitation in saying I prefer the forceps to version under such circumstances as those. I think it ought not to be forgotten that in a certain number of these cases we are obliged to use forceps simply because the brim is slightly contracted. In many cases a slight contraction of brim is not distinguishable by an ordinary digital examination, nor can you make it out unless you pass the whole hand into the vagina. In those cases the os never fully dilates, the head never comes down fully on the os, and I am perfectly satisfied in a certain proportion of cases in which these forceps are applied before the os is fully dilated that non-dilatation is due to imperfect contraction of the uterus. With your permission—and perhaps practice is more important than precept—I will read the details of two or three cases which have come under my care during the last year. They are taken from the report of the Rotunda Hospital, which has not yet been published, and will, I think, throw some light on the treatment of such cases as those which we are at present considering:—"Case 1: E. C., aged twenty-three, was admitted into hospital at 3 a.m. on May 11, having been about twenty hours in labour under the care of a midwife. The membranes had ruptured the previous day, and the patient seemed much exhausted from protracted efforts at 'bearing down.' The os was about half dilated, and very rigid; a large scalp tumour could be felt on the fœtal head; the vagina was hot and dry. Warm baths, chloral, and opium were tried repeatedly during the day. At 10 p.m., the patient having been chloroformed, the forceps were applied; os three-fourths dilated. The cervix offered considerable resistance, and some blood flowed with the first efforts at traction. A small thrombus formed at the posterior fourchette as the head was coming down upon the perineum. Two incisions were made laterally in the perineum to avoid the danger of laceration. The child was still-born. Convalescence was uninterrupted, and the patient went out on the eighth day." "Case 2: A. D., aged twenty-six, unmarried. Labour commenced on May 15; the waters were discharged the same day. Came into hospital on the 16th, having been twelve hours in labour. The os was found to be the size of a shilling, and very rigid. All the ordinary means of relaxing it were employed, but with very little effect. At midnight on the 17th (third day since escape of liquor amnii) the os was about the size of a florin, still very rigid; the vagina hot; tongue coated; pulse rapid; and the patient in great distress of mind. Chloroform was administered, and she was kept under its influence for twelve hours. At noon the following day (18th) the forceps were applied and locked. No traction was applied for half an hour afterwards, as it was hoped the excentric pressure of the blades would expand the cervix sufficiently for the passage of the head. In fifteen minutes more it was drawn through the cervix, and was soon delivered without further difficulty. The entire time which elapsed from the application of the instruments until the birth of the child was fifty-five minutes. The child was born alive, and lived for thirty-six hours afterwards. 19th, 7 p.m.: Patient has suddenly become deeply jaundiced, groaning and complaining of general distress, but no pain; respiration rapid; lochia suppressed; no milk. The perineal laceration, which extends half-way to the anus, is destitute of granulations and covered with a white membrane; the edges red and œdematous, and the discharge thin and irritating, excoriating the inner side of the thighs; labia œdematous. 10 p.m.: Vomiting green matter; semi-comatose, with retention of urine. 20th: Comatose; breathing quieter; pulse 110. 21st: Profuse black vomiting, several pints of fluid being ejected. Coma very profound, with stertorous breathing. Death on third day. The autopsy revealed arborescent injection of the peritoneum, with deposit of recent lymph, rupture of cervix uteri extending to peritoneum, diphtheritic membrane on internal surface of uterus, and adhesion of left pleura." That is the only case, I should say, in which I have ever had rupture of the cervix from the use of the forceps, and I think it clearly proves it is a danger which is not to be forgotten. "Case 3: T. O'N., aged nineteen, a primipara. Labour commenced about 4 p.m. on June 8; she did not, however, come into hospital until noon the next day. 9th: On admission, the os was found to be about the size of a sixpenny bit, and the head could be felt through it, the waters having previously escaped. Her pains were apparently very severe, but had not much effect on the os, which felt hard and rigid. She passed a very restless night, in spite of an anodyne draught. 10th: Os was about the size of a florin, still hard and undilatable. The day and night were spent very much as those preceding had been. On the morning of the 11th, very little progress having been made, chloroform was administered, and the forceps adjusted and locked, but so firmly and rigidly did the cervix surround the blades that it was not thought safe to employ traction, and they were accordingly removed. Chloroform was withdrawn. The patient was again placed in a warm bath, the water of which was injected into the vagina. After a time matters assumed a more favourable aspect: the cervix softened and began to dilate; about 6 p.m. it was retracted over the head, and the child was shortly afterwards expelled alive by the natural efforts." These cases are to me exceedingly interesting and instructive, especially the last. It was the only occasion I can remember in which, after applying the forceps, I did not complete delivery; but I felt amply rewarded by the satisfactory termination of the case. It is very well worth bearing in mind that that patient's child was born alive, in contradistinction

to the first of the cases, in which the child was dead after the use of the forceps. In conclusion, I have to say our practice is this:—We use the forceps freely when the head is low and the os fully dilated. We use the forceps when the os is not fully dilated, but with the greatest possible hesitation, and with a full conviction that such a practice is not absolutely safe. I may add, I do not think that much infantile life is saved by the use of the forceps before the os is fully dilated. Children are born alive to live for a few hours, but the great majority, in my experience, die within a few hours after protracted efforts to extricate them. Of course, I am now alluding to those cases in which there is some difficulty of extraction—not to those of which I have already spoken, in which the os is so soft and so nearly dilated that to speak of it as not being dilated is really, perhaps, erroneous.

(To be continued.)

OBITUARY.

TILBURY FOX, M.D. Lond., F.R.C.P. Lond.

The profession at large will share in the feeling of great regret with which we announce the death of Tilbury Fox, M.D., F.R.C.P. Only a short six weeks ago the profession had to lament the sudden death of Dr. Murchison from disease of the heart, at the early age of forty-eight; and now we have to record the equally sudden death of Dr. Tilbury Fox from the same malady, and at a still earlier age.

Tilbury Fox, like Dr. Murchison, was, as it were, born into the medical profession, having been one of the sons of Dr. Luther Owen Fox, of Broughton, Winchester. Born in 1836, he entered the medical school of University College in 1853; and working steadily and hard under such teachers as Walshe, Jenner, Garrod, Quain, Erichsen, and others, he passed through a brilliant career as a student. At his first examination for the M.B. (Lond.) degree, he took honours in anatomy and physiology; and at the second, in 1857, honours in surgery, and the gold medal and scholarship in medicine. In the practical and clinical study of the profession he had the advantages of serving as House-Surgeon to Richard Quain, and House-Physician to Sir William Jenner, in University College Hospital, and afterwards as Resident House-Surgeon at the Lambeth Lying-in Hospital. In 1858 he took the M.D. degree; and, like many good men before him, not having determined, at that period of his career, what line of practice to pursue, settled at first in Bayswater with a view to general practice. Finally, however, he decided upon aiming at consulting practice, and appears to have first selected what is now called gynæcology as his special field of work, as he became Physician-Accoucheur to the Farringdon General Dispensary, and wrote papers on Puerperal Fever and Phlegmasia Dolens, which were published, we believe, in vols. ii. and iii. of the *Transactions of the Obstetrical Society*. How early he began to make any special study of diseases of the skin we do not know; but when he published, in 1863, his first work on this class of maladies, viz., his work on "Skin Diseases of Parasitic Origin," he was still Physician-Accoucheur to the Farringdon Dispensary and Lying-in Charity. The publication of this work was probably, however, his announcement to the profession that he had given up obstetrical practice, and intended to pursue the study and practice of dermatology, for in 1864 he published the first edition of his work on "Skin Diseases: their Description, Pathology, Diagnosis, and Treatment; with a Copious Formulary"; on the title-page of which he was designated as "Senior Physician to St. John's Hospital for Skin Diseases, and Physician to the Farringdon General Dispensary." In the same year, we understand, he travelled in the East with the late Earl of Hopetoun. During these travels he suffered severely from fever—probably rheumatic,—and returned home very much out of health; and it may be suspected that this illness laid the foundations of the disease from which he died. Shortly after his return home he wrote on cholera and on the dermatology of Egypt, and from this time devoted himself entirely and indefatigably to the study of disease of the skin, and with what complete success is well known. He became not long afterwards Physician to the Department for Skin Diseases at Charing-cross Hospital; and later succeeded the late Dr. Hillier as Physician to the same department in University College Hospital, which appointment he held at the time of his death. He was a Fellow of University College, and in 1869-70 held the office of Lettsomian Lecturer, Medical Society of London, and the lectures he delivered in that capacity "On Eczema, and incidentally the Influence of Constitutional Conditions in Skin Diseases," were afterwards published. Dr. Tilbury Fox was a man of distinguished energy and industry, working with his whole heart and powers at whatever he undertook. It would not be possible to give here even a bare list of the many papers and clinical lectures that he contributed to the medical journals at home and to the *American Journal of Syphilis and Dermatology*. Besides the works already mentioned, he prepared, together with Dr. T. Farquhar, for the India Office, a scheme for obtaining a better knowledge of the endemic skin diseases of the East; and he wrote, with Dr. Farquhar, a work "On certain Endemic Skin and other Diseases of India and Hot Climates generally," including notes on pellagra and some other maladies by Dr. Vandyke Carter—a book containing much original and valuable work, and which was published under the sanction of the Secretary of State for India. His chief work on Skin Diseases, already mentioned, has passed through three editions, and at the time of his death he was engaged in preparing the fourth edition of it for the press. This work has gradually grown in size and in value, and is, as is well known, copiously and beautifully illustrated. Dr. Fox was also the author of the magnificent "Atlas of Skin Diseases, with Descriptive Text, and Notes upon Treatment," published by Messrs. Churchill. Further, in 1877 Dr. Fox published, in conjunction with his brother, Mr. T. C. Fox, a good and useful "Epitome of Skin Diseases, with Formulæ," for students and practitioners, which has already reached at least a second edition.

Tilbury Fox wisely adopted, from the first, Willan's arrangement as the basis of his classification of skin diseases, as affording the nearest approach as yet possible to a strictly natural or scientific classification; and his writings early attracted attention for their practical character and value. But he aimed at teaching dermatology scientifically, labouring with the view of helping to make it take its legitimate rank in medical science, and in our medical schools, beside the obstetric, ophthalmic, and other departments, and declaring that "the physician must be possessed of all that general medicine can teach before he can become the successful dermatologist." He succeeded in advancing our knowledge of diseases of the skin in general, and especially of the skin diseases of parasitic origin; and he was rewarded by a distinguished position as an authority in the specialty he had chosen, and by a large, rapidly increasing, and valuable practice.

At University College he was a good teacher and lecturer, and had formed a large clinique, which was visited by numbers of foreigners; and the excellent and complete establishment of baths at University College Hospital was created chiefly, we believe, through his personal exertions. It will be remembered also that he entered, with his usual energy and determination, into the dispute about the admission of women to the degrees of his University; and that he led with marked ability and success as a speaker the opposition offered by the graduates in Convocation to the high-handed proceedings of the Senate of the University with respect to the admission of women to the degrees in medicine only.

He had known for some six years that he had aortic disease of the heart, and was impressed by the belief that he had not long to live. Of late he had got decidedly worse, becoming increasingly subject to attacks of angina; and Dr. Murchison's sudden death had greatly affected him, leading him to make arrangements for the end, which he felt assured could not be far off. In the first days of June, feeling and looking very weary and worn, he went with Mrs. Fox to Paris for a few days' holiday; but, even when there, he partly occupied himself in preparing the heads of the address he was to deliver at the approaching meeting of the British Medical Association, as President of the new Sub-section of Dermatology, and was greatly pleased by this, as he termed it, first public recognition of the special department of the science and art of medicine to which he had devoted all his powers. On June 6 he was unusually well; but at two o'clock on the morning of Saturday, the 7th, he woke with severe angina, exclaiming that he was dying. A few moments of comparative ease followed, and then he quietly died, at the early age of forty-three.

JOHN E. GROSS, M.R.C.S. Eng., L.S.A.

This gentleman died recently at his residence in Church-street, Gibraltar. He had been in delicate health for several years, suffering from chronic bronchitis and renal disease. About a month before his death he caught a severe cold, and was compelled to keep to his room. But notwithstanding all care he gradually became worse, and at last died, at the early age of forty-four, from the effects of chronic renal disease. Mr. Gross studied his profession at St. Bartholomew's College and Hospital, where he was for some time Resident Midwifery Assistant. He was admitted a Member of the Royal College of Surgeons and Licentiate of the Society of Apothecaries in 1857. For many years he held the appointment of Surgeon to the Convict Establishment at Gibraltar, and on the closing of that establishment in 1874 he settled in private practice in that city. He was much respected by his colleagues and friends; but on account of his delicate health he was obliged to lead a very retired life, and confined himself to consulting medical practice.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following Members of the College having undergone the necessary examinations for the fellowship at the half-yearly meetings terminating on the 31st ult., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council yesterday, the 12th inst., were admitted Fellows of the College, viz.:—

Andrews, William Stratford, Castle-street, Dover, diploma of membership dated May 23, 1878, student of University College Hospital.
Cathcart, Charles Walker, M.A., M.B. and C.M. Edin., Carlton-terrace, Edinburgh, of the Edinburgh School.
Cheyne, William Watson, M.B. Edin., Old Cavendish-street, of the Edinburgh School.
Clarke, William Bruce, M.B. Oxon., North Wootton, Lynn, May 23, 1877, of St. Bartholomew's Hospital.
Footner, John Bulkley, Romsey, Hants, January 21, 1875, of King's College Hospital.
Juler, Henry Edward, L.S.A., Paddington, May 7, 1867, of St. Mary's Hospital.
Lang, William, Exeter, January 23, 1874, of the London Hospital.
Morgan, John, L.R.C.P. Lond., Hereford-road, Bayswater, November 11, 1860, of the Bristol and Guy's Hospitals.
Wherry, George Edward, B.A. and M.B. Cantab., Trumpington-street, Cambridge, July 23, 1873, of the Cambridge and St. Thomas's Hospitals.

Messrs. Cathcart and Cheyne were not Members of the College. Three candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months.

Apothecaries' Hall, London.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, June 5:—

Hoets, Alton Kingsley, 150, Adelaide-road, N.W.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Cook, John William Cross, London Hospital.
Payne, John Woollard, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

Rennie, S. J., M.R.C.S. Eng., L.R.C.P. Lond., and L.M.—House-Surgeon to the Ashton-under-Lyne District Infirmary, *vice* R. Law, M.B., resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

Admiralty.—Inspector-General of Hospitals and Fleets on the Retired List, Henry Jones Domville, C.B., M.D., to be Honorary Surgeon to her Majesty, *vice* Dr. Mackay, deceased.
Militia Medical Department.—Surgeon-Major John Pleydell Wilton (Royal South Gloucester Militia) resigns his commission.

BIRTHS.

Burn.—On May 5, at Hingoli, India, the wife of Surgeon-Major G. A. Burn, 4th Cavalry, Hyderabad Contingent, of a son.
Garrett.—On June 5, at Kenmare House, Walsall, the wife of Charles Frederick Garrett, M.R.C.S. Eng., of a son.
Phillips.—On June 4, at New Ferry Park, Cheshire, the wife of Edward J. M. Phillips, M.R.C.S., L.D.S., of a son.

MARRIAGES.

Bernard—Thackeray.—At Prittlewell Church, Essex, on June 5, Francis R. Bernard, M.B., to Mary Thackeray, only daughter of the Rev. Fredk. Thackeray, M.A., of The Royal-terrace, Southend, and Vicar of Shopland.
Cosgrave—Bullen.—On June 5, in Temple Cowley Church, Oxon, R. MacDowel Cosgrave, M.D., of Colchester, to Anna, second daughter of the Rev. William Crofts Bullen, of Liverpool, and Ballythomas, co. Cork.
Deane—Fisher.—On June 4, at Sowerby, Yorks, John Deane, M.R.C.S., L.R.C.P. Edin., of 42, Albion-road, Stoke Newington, to Alice, elder daughter of the late Rev. John Fisher, of Cossington Hall, Leicestershire.
Fox—Tylor.—On June 5, at Manchester, R. Hingston Fox, M.R.C.S. Eng., of 4, Alexandra-villas, Finsbury-park, London, to Elizabeth, third daughter of Charles Tylor, of Manchester, late of Stoke Newington.
Hill—Morris.—On June 4, at Hayes, Kent, Arthur, third son of Lieut.-General G. Mytton Hill, Bengal Staff Corps, of Lee, Kent, to Catherine Emily, eldest daughter of Thomas Morris, M.D., of Hayes, Kent.
Lancaster—Botibol.—On June 5, at Greenwich, H. Francis Lancaster, M.R.C.S., L.R.C.P. Lond., of 247, Lewisham, High-road, S.E., to Lucia Court, daughter of the late P. Botibol, Esq.
Leeson—Lewis.—On June 10, at Kensington, John Rudd Leeson, M.B., to Margaret Anne, youngest daughter of the late Rev. J. P. Lewis, of Diss.
Morison—Smith.—On June 5, at St. Helier's, Jersey, John Morison, M.D., of La Motte, Jersey, to Marie Margaret, eldest daughter of the late Cecil Smith, Esq., of her Majesty's Consular Service.
Powell—Farrow.—On June 5, at Mundham, Arthur Ernest Powell, M.R.C.S., L.R.C.P., of Bury's Hall, Holme Hale, to Mary Elizabeth, only child of Jonathan Farrow, Esq., of Mundham House, Norfolk.

DEATHS.

Beaumont, Thomas Mills, F.R.C.S. Eng., at Knaresborough, on June 4, aged 67.
Bushell, Francis Henry, only surviving son of S. W. Bushell, M.D., of the British Legation, Peking, at Southampton, on June 10, aged 2 years and 4 months.
Fox, Tilbury, M.D., of 14, Harley-street, Cavendish-square, very suddenly, while on a visit to Paris, on June 7, aged 48.
Higginbotham, Edmond, M.D., of Bruton, Somerset, on June 2, aged 44.
McCarogher, Jane, wife of Joseph McCarogher, M.D., at Chichester, on June 5, in her 75th year.
Paxton, John, M.D., late of Kilmarnock, Ayrshire, at Oakleigh, Sutton, Surrey, on June 6, aged 67.
Stuart, John, L.R.C.S. Ire., Surgeon-Major, late of the Royal Engineers, at Reading, on June 3, aged 50.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Hospital for Women, Soho-square.—Assistant-Physician. Candidates must be graduates in medicine of some recognised university, and Members of the Royal College of Physicians, London, or must become so within twelve months of their appointment. Applications to the Secretary on or before July 8.

Royal Isle of Wight Infirmary, Ryde.—House-Surgeon. Candidates must be legally qualified. Applications, with testimonials, to the Secretary, not later than June 23.

Samaritan Free Hospital for Women and Children, Lower Seymour-street, Portman-square, W.—Physician, Out-Patient's Department. Candidates must be graduates of a British university, or, if graduates of a foreign university, Members of the Royal College of Physicians of England, duly registered, and not practising pharmacy. Applications, with testimonials, to the Secretary, on or before June 26.

Surrey Dispensary, Great Dover-street, S.E.—Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of England, and registered; they must attend at the Dispensary on Tuesday, June 24, at 6 p.m., and produce their testimonials and other necessary qualifications.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Faringdon Union.—Mr. James Knill has resigned the Second Faringdon District; area 11,621; population 2582; salary £60 per annum.
Huddersfield Union.—Mr. William Pinck has resigned the New Mill District; area 7697; population 6021; salary £30 per annum.
Tonbridge Union.—Mr. M. Monckton has resigned the First District; area 5617; population 19,806; salary £130 per annum.
Wincanton Union.—The Bruton District is vacant; area 13,611; population 3969; salary £100 per annum.

APPOINTMENTS.

Castle Ward Union.—Jacob H. Bartlett, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Stamfordham District.
Fylde Union.—John Winn, L.R.C.S.I., L.K. & Q.C.P.I., to the Poulton District.
Louth Union.—Charles T. Ennals, M.R.C.S. Eng., L.S.A., to the Burwell District.
Northallerton Union.—George Taylor, B.M. and M.C. Univ. Aber., to the Borrowby District.
Pickering Union.—James F. Witz, L.R.C.S. Edin., L.R.C.P. Edin., to the Lastingham District.
Portsea Island Union.—Lysander Maybury, M.D., M.C., M.R.C.S. Eng., L.S.A., to the Railway District.
Redruth Union.—Edward S. Angove, M.R.C.S. Eng., L.R.C.P. Edin., to the Camborne District.
Thirsk Union.—Henry Longford, L.K. & Q.C.P.I., L.R.C.S.I., to the Knayton District.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The Association will hold its eighth session at Montpellier, commencing on August 28 and continuing for eight days. The President is M. Bardoux, Deputy for Puy-de-Dôme, and late Minister of Public Instruction, and Prof. Gariel is Secretary to the Council. Applications are to be addressed to 76, Rue de Rennes, Paris.

DEATH FROM MINUTE DOSE OF STRYCHNIA.—A student of the laboratory of the Ecole de Pharmacie relates in the *Union Méd.*, June 3, the fact that a cat belonging to the laboratory died in a few minutes after some convulsions, having eaten a small bird which had been employed in an experiment with strychnia. Still, Prof. Jeanjean had only deposited in the corner of the eye of the bird scarcely a milligramme of the acetate of strychnia!

INTERNATIONAL CONGRESS OF MEDICAL SCIENCE.—The sixth congress is to be held at Amsterdam from September 7 to 13, inclusive. Prof. Donders is the President of the Committee of Organisation, and Dr. Guye, of Amsterdam (to whom all communications respecting the Congress are to be addressed), is the Secretary. The French language is to be employed at the general meetings of the Congress, and either French or German at the meetings of sections; but members will be allowed to use other languages, and their addresses may then be translated into French.—*Lyon Méd.*, June 8.

JABORANDI IN OBSTINATE HICCOUGH.—Dr. Ortille, of Lille, communicates to the *Bull. de Thérapeutique* (May 30) the case of a woman, aged fifty-six, who came under his care for hiccough which had lasted for seven months. The hiccough was almost continuous, at the rate of thirty or forty times a minute, and was accompanied by vomiting. Occasionally there were intervals of five or ten minutes. Various remedies had been tried in vain, and now a decoction of four grammes of the leaves and stalks of jaborandi was prescribed in two doses, to be taken with an interval of a quarter of an hour. The usual sweating and transpiration were produced, as was some vomiting; and in two hours the hiccough had ceased. This was on April 10, and a recent account of the woman states that she has remained exempt from any return.

PRURIGO FORMICANS.—Dr. Hillairet, lecturing at the St. Louis Hospital (*Rév. Méd.*, May 3), on a case of prurigo formicans, occurring in a youth of twenty who had been tormented with it since he was six years of age, observed that he could not agree with Professors Bazin and Hardy in believing that this inveterate form of prurigo is curable. In all the cases which he has met with that have commenced at an early period of life, every means that has been tried has failed in effecting a cure, although temporary alleviation may be obtained. The treatment which he has found most successful in attaining this latter object, although a painful and disagreeable one, succeeds in giving relief, which may last two or three months. It is that employed for the rapid treatment of itch. First, the whole of the body is thoroughly washed with "black soap," and immediately afterwards a prolonged bath is taken. On leaving the bath the patient is thoroughly rubbed with sulphur ointment. Next day the same treatment is repeated. It is then suspended for two days, when it is again put into force for the last time.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN MAY, 1879.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen as Nitrates, etc.	Ammonia.		Hardness. (Clarke's Scale.)	
				Saline.	Organic.	Before Boiling.	After Boiling.
Thames Water Companies.	Grs.	Grs.	Grs.	Grs.	Grs.	Degs.	Degs.
Grand Junction ...	21·11	0·067	0·141	0·000	0·006	14·3	3·7
West Middlesex...	21·00	0·070	0·135	0·000	0·006	14·3	3·7
Southwark and Vauxhall ...	21·30	0·069	0·111	0·000	0·006	13·2	2·3
Chelsea	20·30	0·065	0·135	0·000	0·006	14·3	2·3
Lambeth	20·90	0·066	0·135	0·000	0·007	14·3	4·6
Other Companies.							
Kent	27·70	0·004	0·295	0·000	0·004	17·6	6·0
New River ...	20·70	0·060	0·135	0·000	0·004	13·7	2·3
East London ...	23·00	0·053	0·105	0·000	0·006	14·7	4·6

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours.

The water was found to be clear and nearly colourless in all cases.

MR. R. RICHARDSON, L.R.C.P.E., L.F.P.S.G., F.G.S., has been presented with a handsome silver salver, and tea and coffee service, on the twenty-fifth anniversary of his residence in Rhayader, Radnorshire, in recognition of his public and professional services.

MUSÉUM D'HISTOIRE NATURELLE DE PARIS.—The candidates for the chair of General Physiology of Claude Bernard were M. Bouley, of the Institut, Inspector-General of Veterinary Schools; M. Armand Moreau, and M. Jousset de Bellesme, both former pupils of Claude Bernard; and M. Rouget, Professor at the Faculty of Medicine of Montpellier. The professors of the Museum, who have the right of classing the candidates, have submitted to the Minister of Public Instruction M. Bouley's name on the first line, and that of M. Moreau on the second, not mentioning the other candidates.—*Progrès Méd.*, May 31.

THE following interesting extract is from the *Chinese Customs Gazette*. Dr. R. A. Jamieson, M.A., M.R.C.S., of Shanghai, writing on Chinese operative midwifery, says:—"An urgent request for assistance was sent to the Gutzlaff Hospital on the afternoon of July 15, on behalf of a woman who had been in labour since the morning of the 11th. I found the room where she was lying full of men and women, and a multitude of candles and incense-sticks burning. Overpowering the perfume of the incense, however, a smell of gangrene pervaded the room, and indeed the whole house. On turning out the spectators I found the woman with an uncountable and hardly perceptible pulse, but the abdomen painless on pressure. The vagina and rectum formed one indescribable cloaca, with black, ragged, swollen borders; the perineum had altogether disappeared, but the extent to which the recto-vaginal septum in its natural condition had been destroyed could hardly be ascertained, the tumefaction was so great. The child's head was arrested where the perineum would have been had it not been torn away, and a loop of cord (of course pulseless) was perceptible in the middle of the gangrenous mass. The friends explained to me that on the night of the 13th, a midwife who had been in attendance since the beginning, seeing that the child was arrested, tore the parts with her hands in order to facilitate its exit, but finding no progress made by the following morning, deserted the case. I should think, however, that some cutting or tearing instrument had been used. Having with great difficulty found the meatus, I drew off a large basinful (at least three pints) of urine, and then easily delivered with the forceps. A gush of fetid fluid followed the child's body; the womb contracted firmly, expelling the placenta. Having applied a light bandage to the abdomen, and cloths wrung out of hot water to the external parts, I gave thirty drops of Battley's sedative in an ounce of brandy, and ordered soup and brandy-and-water to be administered frequently. The woman, as might have been expected, died before night, and on inquiry I found that immediately on my departure a Chinese doctor was summoned, who countermanded the fomentations and forbade the soup and brandy. There was no hæmorrhage subsequent to the delivery. The firmness with which the uterus contracts, and the persistency with which it remains contracted, while a woman is sinking from nervous exhaustion, or from nervous exhaustion combined, as in this case, with blood poisoning, are very remarkable. A case occurred many years ago in my practice, where a lady, after long-continued mental and bodily fatigue, miscarried about the sixth month, and sank steadily from the moment of delivery, to die thirty hours afterwards. No pains were spared to recall her failing energies; transfusion was employed, but her nervous system refused to react to any stimulus. At the same time the uterus remained perfectly contracted, so that neither before nor after death was there any escape of blood. Five years since, when writing on the subject of obstetric medicine among the Chinese,(a) I published some statistics to prove that in a Chinese woman the physiological processes of utero-gestation and parturition are so closely surrounded by the dangers arising from no-management and mismanagement that pregnancy becomes a pathological condition but one-half less formidable than typhus fever in England. Such a case as that just detailed goes far to support this or any similar conclusion. There can be no reasonable doubt that the timely application of the forceps would have saved both mother and child."

(a) *Customs Medical Reports*, iii., 82.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

The Case of Thomas Millership.—Dr. Joseph Rogers writes to us that he has received letters of warm sympathy with, and approval of his estimate of, the merits of this case, from Dr. Roberts, Dr. E. Long Fox, and other medical men; and he asks us to insert the following list of additional sums received up to this time:—

	£	s.	d.
Dr. Vacher, Birkenhead	2	2	0
Dr. Birt, Stourbridge	1	1	0
J. F. Palmer, Esq., King's-road, Chelsea	0	5	0
Dr. Beddoe, Clifton...	0	5	0
Dr. R. Barnes, London	2	2	0
Dr. E. Long Fox, Clifton	3	3	0
Mr. S. Burrows, Withersidge	2	2	0
Dr. Tuxford, Boston	1	1	0
Dr. A. Tuxford, Boston	1	1	0

Other sums have been promised, which will be reported when received.

*** We are requested to insert the following note:—"William Peter Powell, M.R.C.S. Eng.—The friends of this gentleman, especially his mother, are very anxious to know his present residence. He is believed to be in either Australia or New Zealand, but nothing has been heard of him since July, 1872. Communications may be addressed to Mrs. Mercy Ocoock Powell, 10, Great George-square, Liverpool."

Opiates and the Working Classes.—Referring to the use of opiates by the working classes, we find attention is also beginning to be attracted in the United States to the great increase in the consumption of opium by mechanics; and there, as here, it is attributed to the fact of the drug being substituted for stimulants. It has been ascertained that on the sudden disuse of intoxicating beverages after an habitual use of them for a considerable time, the drunkard has had recourse to opium, in a variety of forms, in their stead.

Apparently a Forlorn Hope.—The report read at the fourth annual meeting of the Society for the Total Abolition and Utter Suppression of Vivisection, lately held, stated that they were still as far as ever from one of the original objects of the Society—namely, the repeal of the Act 39 and 40 Vict., cap. 77. The Committee feared that a long period must now elapse before the law rendering torture legal for the first time in England would be erased and obliterated from the statute-books of the realm.

A Danger in Postage-Stamps.—Dr. Hassall states that he has discovered that a danger of disease, if nothing worse, is present in postage-stamps. He has analysed a number of penny stamps, and found in all of them "lead in large quantity, derived doubtless from the colouring of the stamps." The Post-office authorities ought, Dr. Hassall thinks, to discontinue the use of the present penny stamps as soon as possible; in which we entirely concur, if red lead is employed in colouring them.

"New Smoking Mixtures": a Warning.—A case has come into court showing the adulteration of tobacco on a large scale. The first instance was discovered at Gainsborough, where a seizure was made of what was called "tobacco," which on analysis proved to consist chiefly of "camomile flowers, dyed with logwood and sweetened." The traders on whose premises it was found simply contended that they had obtained the mixture in the same condition from certain tobacco merchants at Birmingham. The Inland Revenue authorities, acting on this information, went to the Birmingham firm, whose entire stock was seized and submitted to analysis, which again showed that the adulterant in question formed a large proportion of the compound. Hereupon legal proceedings were immediately taken to recover the penalties provided by law for such offences. The Bench in the Gainsborough prosecution inflicted the minimum fine of £50, being satisfied that the adulteration was unknown to the vendors.

A Deserved Reproof.—Dr. J. A. Harrison, the Medical Officer of Health of the Local Board at Haslingden, in his last report draws attention to the many nuisances in the town which had repeatedly been brought under the notice of the committees, but nothing had been done to remove the evils complained of. "At the present time," he says, "I happen to be in danger of having some of my household poisoned with sewer-gas, through the drain in the cellar being blocked up. This matter was brought under the notice of the Nuisance and Highways Committee ten days ago, yet no steps are being taken to relieve us." Moreover, there is a house in the town "which is flooded with sewage-water, but, according to the present state of affairs, it must wait the Highways Committee meeting before any steps can be taken to put it right." Dr. Harrison, in conclusion, remarks "that there was something radically wrong in the way the business of the Board was conducted." A member, on looking over the book containing a list of notices received, found "that *a number* of notices to abate nuisances, etc., had been served *two years ago*, but had never been taken notice of from that time to the present." The nuisance inspector, in answer to an inquiry of the Board, said "this statement was correct." It was ultimately announced "that the Committee intended to make a fresh start." The Medical Officer's home-speaking seemed to considerably perturb the equanimity of some of the members of the Board.

Colliery Casualties: Superseding the Suspension of a Certificate.—The verdict of the jury touching the cause of death of the six men and boys killed at the Dinas pit, Glamorganshire, should not escape attention, on account of its involving a well deserved censure on the colliery owners, by employing and placing a man in a position of responsibility for which he was incompetent, and whose certificate had been previously suspended in consequence. The verdict was as follows:—"We find that the death of John Griffiths and William Jenkins occurred through an explosion of gas at the Dinas pit on January 13 last, and that the explosion was accidental; and we believe, on the evidence adduced, that it occurred through a sudden outburst of gas in or near Morris's heading. At the same time we strongly censure the course adopted by the colliery authorities in placing John Clubb nominally as overman, but practically as part manager, after his certificate had been suspended through incompetency in conducting the management of the said colliery." The jury thus endorsed the censure by the Government inspector of the colliery authorities.

Urban and Rural Sanitary Works.—A new infirmary for 400 beds is about to be erected by the Guardians of the Croydon Union. The pavilion principle is to be adopted. The site covers an area of about eight acres.——The Town Council of Leeds have decided by a large majority—thirty-two against eighteen—not to proceed with the erection of the proposed public washhouses.——Two members of the Burnley Corporation applied to Sir Ughtred Kay-Shuttleworth, M.P., to rent a piece of land for recreation purposes, when he at once promised them ten acres for the nominal sum of £1 per annum; practically a gift of the land to the town for an indefinite period.——A letter from Mr. F. Thompson has been referred to the Works Committee of the Metropolitan Board of Works, suggesting that a permanent awning or glass roof should be erected to cover in the greater part of Leicester-square, and stating that, should the Board consider such a scheme desirable, he was prepared to submit plans, and would bear the entire expense of it.——The new workhouse and asylum which has been erected at Smithson by the Greenock Parochial Board at a cost of about £100,000 has just been opened.——The Metropolitan Board of Works has agreed to advance the following loans to local authorities—namely, to the Guardians of Marylebone, £40,000, towards the cost of the infirmary in course of erection at Notting-hill; the Guardians of Holborn, £25,000, for building the infirmary at Highgate; and to the Rotherhithe Commissioners of Baths and Washhouses, £1500, for purchasing the leasehold interest in ground on which it is proposed to erect baths and washhouses.——A public meeting has been held at Sheffield to protest against the enclosure of Malthy Common by Lord Scarborough. A Committee of the House of Commons has reported in favour of the enclosure, but the inhabitants of Sheffield and Rotherham feel that they will be prevented using the common. A petition against the enclosure was adopted.

A Workhouse Sick-Ward.—Some strange revelations as to the management of the sick-ward at the workhouse at Stroud were made at an inquest lately held there touching the death of an old man who had met with an accident and been taken there and placed in the sick-ward, and who died during the night. It appears that the nurse thought the deceased "all right at eight o'clock at night, but at eight o'clock the next morning she found he was dead." It is the custom at this workhouse to lock the sick-ward at eight at night, and leave it in charge of an old man, who has no bell or other means of communicating with anyone for twelve hours. Moreover, it was the opinion of the master of the workhouse that he is not "fit to be trusted with a key," although the sole charge of fifteen sick persons were entrusted to his care for the whole night. This old warder told the jury that the deceased "was took for death between one and two," that he could do nothing for him, but he "woke up the rest of the sick" to see him die. Many hours elapsed before any official came near the ward to ascertain the facts of the case. The verdict of the jury was that the deceased died from the effects of the accident, adding that the sick-ward should not be locked up in the way stated, but be accessible to the workhouse nurse. The Coroner, in some apt remarks, warned the workhouse authorities as to the duty of the master and nurse, especially in respect to reporting to the medical officer the death of any inmate without loss of time.

F.R.C.S. Hon.—If you will read the notice sent to you it will be seen that if any Fellow nominates at any one election any greater number of candidates than there are vacancies, his voting-paper will be void. As a rule, members of the Council do not sign the recommendation.

Medical Officers of Insurance Companies.—It is suggested to life insurance companies by the *Plumber and Sanitary Engineer*, America, that instead of merely hammering at a man's chest to find if he has a tendency to any disease, it would be well for the medical examiner of life insurance companies to inquire if he has not got a cesspool leading into his well, or untrapped pipes beneath his basins and closets. Persons living in the midst of contagious influences no doubt find little trouble in getting a heavy policy on their lives. If insurance officers would give their attention to this subject, a mutual advantage would be gained. The companies would, most probably, diminish their losses; and if houses were rated as "hazardous" the occupiers would take measures to find a remedy for the difficulty, and the general public would also be benefited.

Thomas Guy.—The following gentlemen candidates for election at the last annual meeting of the Fellows, have been again brought forward this year, viz.:—Mr. Wood, who polled 81 votes; Mr. Power, 78; and Mr. Bryant, 62. The number of Fellows who voted amounted to 307.

Dr. Harris.—The Fellows' festival will take place as usual on the day of election, and at the Albion Tavern. A metropolitan surgeon on this occasion will take the chair—Mr. John Gay. Mr. Lowne, the honorary secretary, will supply you with the desired information. The gentleman mentioned will no doubt be elected. Mr. Lister is not a candidate.

COMMUNICATIONS have been received from—

Mr. D. Colquhoun, London; Mr. John Chatto, London; Dr. G. E. Herman, London; Mr. Edward Bellamy, London; Mr. W. Spencer Watson, London; Mr. T. M. Stone, London; Dr. William Boulting, Ludlow, Shropshire; Dr. Nield, London; Dr. B. Foster, Birmingham; Mr. N. Smart, Folkestone; Registrar of Apothecaries' Hall, London; Mr. W. H. Crowther, Liverpool; Dr. Lucas, Agra; Dr. Lediard, London; Mr. H. Courtenay Fox, London; Dr. C. Meymott Tidy, London; Registrar-General, Edinburgh; Dr. Norman Chevers, London; Dr. J. W. Moore, Dublin; Dr. J. M. Bruce, London; Mr. Samuel Thompson, London; Mr. J. W. Hinings, Rhayader; Dr. Rogers, London; Dr. Sanson, London.

BOOKS AND PAMPHLETS RECEIVED—

Observations on the Contagion of Enteric Fever, translated from the French of the late M. Piedvache, of Dinan, by Alexander Collie, M.D.—T. Spencer Cobbold, M.D., Parasites: a Treatise on the Entozoa of Man and Animals—Henry Calderwood, LL.D., The Relations of Mind and Brain—T. S. Clouston, M.D., An Asylum or Hospital Home for 200 Patients, with Plans, etc.—W. Gimson Gimson, M.D., M.R.C.S., Vivisections and Painful Experiments on Living Animals: their Unjustifiability—R. A. Macfie, F.R.S.E. (of Dreghorn), Copyright and Patents for Inventions—Alexander Harvey, M.A., M.D., First Lines of Therapeutics.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Prize Paper—Centralblatt für Gynäkologie—Night and Day—Practitioner—Archives of Otology—Archives of Ophthalmology—Neurological Contributions—North Carolina Medical Journal—Students' Journal and Hospital Gazette.

APPOINTMENTS FOR THE WEEK.

June 14. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

16. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Prof. Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

17. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Statistical Society, 7¾ p.m. Dr. Guy, "On Tabular Analysis." Also, if time permits, Dr. Cornish (Sanitary Commissioner of Madras), Extracts from a paper "On the Influence of Famine on the Growth of Population."

18. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Royal College of Surgeons of England, 4 p.m. Prof. Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

20. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Royal College of Surgeons of England, 4 p.m. Prof. Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 7, 1879.

BIRTHS.

Births of Boys, 1082; Girls, 1053; Total, 2135.
Average of 10 corresponding years 1869-78, 2175·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	719	632	1351
Average of the ten years 1869-78	691·1	634·7	1325·8
Average corrected to increased population ...	...	...	1419
Deaths of people aged 80 and upwards ...	...	...	38

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561369	4	10	5	4	7	...	2	2	3
North ...	751729	...	15	5	6	6	...	...	...	3
Central ...	324369	...	10	1	1	1	...	1	...	1
East	639111	...	13	2	2	15	...	1	...	2
South	987692	7	27	13	4	12	2	4	2	4
Total	3264260	11	75	26	17	41	2	8	4	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·542 in.
Mean temperature	54·7°
Highest point of thermometer	69·2°
Lowest point of thermometer	41·3°
Mean dew-point temperature	49·5°
General direction of wind	S.W.
Whole amount of rain in the week	1·71 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 7, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending June 7.	Deaths Registered during the week ending June 7.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3620868	48·0	2135	1351	69·2	41·3	54·7	12·61	1·71	4·34
Brighton	105608	44·9	60	33	67·7	42·4	54·9	12·72	2·20	5·59
Portsmouth ...	131821	29·4	53	33	...	...	...	...	...	...
Norwich	85222	11·4	52	33	65·5	43·0	52·0	11·11	0·65	1·65
Plymouth	74293	53·3	30	21	62·5	41·0	52·2	11·22	1·63	4·14
Bristol	209947	47·2	103	80	68·4	43·5	53·7	12·06	1·29	3·28
Wolverhampton ...	75100	22·1	51	25	69·6	38·0	50·1	10·06	1·38	3·51
Birmingham ...	388884	46·3	279	158	...	...	...	...	...	...
Leicester	125622	39·8	83	53	71·5	39·5	52·7	11·50	1·47	3·73
Nottingham ...	169396	17·0	85	64	71·5	36·2	51·1	10·62	0·99	2·51
Liverpool	538338	103·8	341	217	64·9	43·4	50·8	10·45	0·94	2·39
Manchester ...	361819	84·3	177	153	...	...	...	...	...	...
Salford	177849	34·4	98	63	...	...	...	...	...	...
Oldham	111318	23·9	68	50	...	...	...	...	...	...
Bradford	191046	26·5	74	85	65·1	42·0	49·1	9·50	0·65	1·65
Leeds	311860	14·5	199	126	64·0	41·0	49·8	9·89	0·46	1·17
Sheffield	297138	15·1	200	98	66·0	36·7	49·4	9·66	1·54	3·91
Hull	146347	40·3	93	47	64·0	39·0	48·4	9·11	1·53	3·89
Sunderland ...	114575	41·4	78	39	61·0	42·0	49·4	9·66	0·44	1·12
Newcastle-on-Tyne	146948	27·4	74	58	...	...	...	...	...	...
Edinburgh	226075	53·9	144	77	57·9	37·0	48·6	9·23	1·25	3·17
Glasgow	578158	95·8	332	230	62·5	39·7	50·8	10·45	0·32	0·81
Dublin	314666	31·3	207	243	64·9	37·0	52·4	11·33	0·79	2·01
Total of 23 Towns in United Kingdom	8502896	38·6	5016	3335	71·5	38·2	51·2	10·67	1·13	2·87

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·54 in. The lowest reading was 29·29 in. on Tuesday morning, and the highest 29·76 in. on Wednesday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON HYPERÆSTHESIA OF THE EYE.

By JONATHAN HUTCHINSON, F.R.C.S.,
Senior-Surgeon to the London Hospital and to the Hospital for Skin Diseases: Consulting-Surgeon to Moorfields Ophthalmic Hospital; Professor of Anatomy and Surgery to the Royal College of Surgeons.

GENTLEMEN,—There is a class of cases, by no means small, in which the eye becomes almost useless, and a source of great discomfort to its possessor, although there is no disease to be discovered in it. Complaint is made that any attempt to read or work makes the eye ache, that all light is annoying and all artificial light intolerable; and sometimes the aching persists although complete rest is secured and all strong light avoided. You examine with the ophthalmoscope, and find nothing abnormal, excepting that the retinal veins are almost always full. Naturally, you search for some error of refraction or some weakness of the internal recti, and in a certain number, but only a small minority, in my experience, some definite cause of this kind is discovered. I by no means deny that, with adequate zeal, you may usually make out some slight hypermetropia, myopia, or astigmatism, but your carefully selected glasses will give the patient no relief. He will complain, on the contrary, that their glitter hurts his eyes and makes them ache the more. Tinted glasses give him some relief, but he is worse than ever when they are off. Often, in proof that the irritability is not wholly due to defective refraction or difficult adjustment, we have the fact that it has come on rather suddenly in those who formerly had strong and quiet eyes, and sometimes, though not so often, its complete disappearance supports the same view.

To the condition of eye to which I refer the term hyperæsthesia of the retina is usually given, and to some extent no doubt it is applicable. I doubt, however, whether it really covers the whole ground, and whether in many cases the retina is exclusively at fault. The condition is very distinct from mere intolerance of light, and the patients will often allow of ophthalmoscopic examination without discomfort. In many cases the condition is, besides, aggravated by sleep—a state which we may suppose likely to soothe rather than otherwise any primary susceptibility of nerve-tissue. Even as regards intolerance of light, we know that is often connected rather with sources of irritation existing in parts supplied by the fifth nerve—the cornea and ciliary region—than in the retina itself. Nor are retinal inflammations usually attended by much intolerance. I prefer, therefore, to speak of hyperæsthesia of the *eye*—eyeache, or irritable eyes. Now, the chief interest in connexion with this subject is in the investigation of causes, for if we can understand them we shall make a definite gain as regards both treatment and prevention. In the cases which I shall relate to you special attention will be given to causes, and I shall do my best to assign to different symptoms their proper places as indicative of different causes and pathological conditions. It is admitted in the beginning that the cases are not exactly alike; although they agree in main features, yet in some one symptom preponderates, and in some another, and it is highly probable that various causes often combine in varying proportions to produce the gross result. Let me briefly give some of the more important of possible causes.

First we have errors in refraction. These are so obvious as causes of ocular fatigue and irritability that I shall not do more than allude to them. Everyone knows that in hypermetropia and presbyopia especially, the eyes under conditions of overwork are likely to become painful, and that such conditions are usually relieved by the appropriate glasses. It is very important in all cases of eyeache to carefully examine the state of refraction, as the amount of irritability may sometimes be such as to mislead the less careful practitioner into the belief that it must imply real disease.(a) On the other hand, it is true that even when the refraction is defective, if the nerve-tone be good it is usually borne without inducing irritability, and that thus even in such cases it is necessary to inquire carefully whether there may not be other contributory causes. Even after the error of refraction is compensated, the eye may persist in aching, and it is a great error under such circumstances to insist that the patient shall continue the glasses, which, although quite appropriate, still give him annoyance. Those cases in which irritability from other causes is complicated with defects in refraction, which previously gave no trouble, and are really an unimportant element, are very common, and they are some of the most troublesome.

Secondly, amongst the causes of hyperæsthesia let me mention former and often long past attacks of inflammation. In case after case in which in early adult life persistent irritability has supervened, I have found that either slight corneal haze revealed the fact of former ulceration, or, failing this, that the patient gave the history of a former attack of ophthalmia. In such cases, often during an interval of many years between the attack of ophthalmia and the occurrence of irritability, the patient has been wholly free from annoyance and able to bear both work and light. The original attack may have been in childhood, and no inconvenience may have resulted till adult life, and then without any relapse of external inflammation. Almost always in such cases there is the history that intolerance of light was a marked symptom in the original attack. It would seem that whenever this symptom has once been present for some time it leaves the nerves of the part altered and liable to take on renewed irritability on the intervention of some constitutional predisposing cause.

Thirdly, the influence of overwork and of work under unsuitable conditions must be mentioned as a powerful exciting cause of hyperæsthesia. It may be suspected, however, that overwork alone, or exposure to gaslight or work on white paper or on bright colours, and by night instead of day, is rarely efficient to produce irritability if its subject be in robust nerve-health. A printer's reader working all night in a hot room by gaslight, revising newspaper proofs, may read himself blind from acquired myopia, with disease at the yellow spot, and never experience the least abnormal susceptibility. Some further influence is needed to help to that result.

Fourthly, then, we have to discuss the constitutional state, which is fundamental, which helps all the other causes, and by the aid of which they produce the result, and which is in many cases the sole and efficient influence to which the irritability is due. For without doubt some of the most severe and definite examples of ocular hyperæsthesia occur to those who have never overworked their eyes, who have no defect of refraction, and who have never suffered any prior attack of inflammation. In almost all these cases there is present some appreciable failure in nerve-tone, and very often this failure is to be traced to some depressing cause. Often some emotional shock has been experienced, and not unfrequently the age and social condition of the patient are such as to make us suspect that the sexual system may have had its share in reducing the vigour of the circulation. I suspect that we ought to give much more prominence than has hitherto been done to the occurrence of irregularities in the circulation under loss of nerve-tone, and perhaps in an especial degree to passive venous congestions. It may, indeed, be plausibly suggested that over-fulness of the retinal and choroidal veins is one of the commonest pathological conditions in these cases of eyeache. I shall discuss this hypothesis in more detail when we come to consider certain cases which I have to mention. Meanwhile, let me say that a turgid state of the retinal veins is often the only deviation from the normal state which the ophthalmoscope can detect, and that the kind of headache present and the causes by which the symptoms are aggravated are precisely such as would accord with the theory of venous turgescence as the immediate cause. We shall still have to ask what induces the imperfection in the venous circulation.

It must be clearly understood that these cases of ocular hyperæsthesia are not exactly alike in symptoms. In some fatigue and irritability especially follow use, in others exposure to light is the irritant most complained of, whilst in others eyeache independent either of exertion or exposure to light is the prominent feature. By the preponderance of one or other of these three symptoms we may often make a conjecture as to the probable cause. If the annoyance is most felt after work, we suspect defect of refraction or insufficiency of the internal recti; if exposure to light takes the lead, we should examine the cornea and lids to see if there be

(a) Mr. Brudenell Carter has recorded some instructive cases on this point.

not some slight evidence of past or present disease in them; whilst if the eyeache is almost constant and apparently causeless, we may infer that probably the circulation is feeble and the veins too full. In most cases these three symptoms are combined in varying degrees of severity. A question which will often give a clue to the case is, "How are your eyes when you first wake?" If the reply is that they feel gritty and uncomfortable and are bloodshot, then the circulation is at fault, for irritability due to accommodation defects is usually relieved by sleep and is worse in the later part of the day. It is also important to inquire as to cold feet and as to any change which may have been recently experienced in liability to general chilliness.

Let me now mention to you a few illustrative facts. A highly accomplished clergyman, residing in a small country town, has been my patient, at different times, for the last twenty years, on account of irritability of the eyes. He has had meibomian cysts and styes innumerable, and not unfrequently several at the same time, so that the whole edge of his eyelids would be involved in inflammation. When these were worse than usually his eyes generally became irritable, and he would often have to wear protectors. He never had, however, any ulceration of cornea or any special form of ophthalmia. At length the case culminated in hyperæsthesia of the eyes, and for nearly a year he was quite unable to do anything by artificial light, and obliged to restrict himself in the daytime to no more writing or reading than was unavoidable. At this time there was no conjunctival inflammation whatever. At length, under the influence of tonics, the eye-douche, and long residence at the seaside, he quite recovered, and he can now use his eyes without discomfort.

Now, in addition to the evidence afforded by the occurrence of styes as to deficient nerve-tone, I have several other important facts to mention bearing upon the state of his nervous system. In early life he was long laid up with an attack of spinal disease, and ever since he has been a sort of valetudinarian, complaining much of his back, and needing long holidays. He is now about fifty-five, single, and absolutely continent. Although a very intellectual man, he is decidedly effeminate and emotional. His state is, indeed, an excellent illustration of the condition in which a general susceptibility of the whole nervous system manifests itself chiefly in the practical derangement of one organ. Most of the cases of hyperæsthesia of the eye are met with under similar conditions. Students, celibates, and I think especially clergymen, are liable to be its subjects. The following letter from a gentleman who at the time he wrote it was about twenty-seven, well describes a typical case, in which, in spite of treatment, the suffering continued through eight years. I am sorry that I am not even now able to say that its writer is well. During the time that he remained under my observation he did not make much improvement, although he had the advantage of residence at the seaside and sea-bathing.

"My eyes were strong as a child; at about seventeen years of age they began to show sensitiveness to the heat from a fire, and a year or two afterwards reading by candlelight seemed to strain them. I was accustomed to read a considerable time before breakfast—one winter for three or four hours—with a paraffin lamp, without taking food of any kind. I was suffering from general debility and lassitude. About Christmas, 1851, when I was nearly twenty-one, I had a severe bilious attack. At the same time my eyes grew rapidly worse—so much so, that for three years from that time I could neither face fire nor candle, and rarely read one page without feeling considerable strain. Looking at a few photographs or being in a large building had the same effect. The sensation was as if one of the strings at the back of the eye were being strained; if continued, almost as if the eyes were being pulled out; and the general depression afterwards was very considerable. There was a painful dryness of the eyes. I occasionally suffered from a severe nervous headache. In January, 1852, I went to Mr. B., who pronounced it extreme sensitiveness, but said he did not apprehend any blindness; he prescribed the use of Carpenter and Wesley's eye-douche several times a day, and a lotion for the evening, with tonics, which I had some difficulty in taking. In the course of the next year and a half he prescribed other lotions, and blisters behind the ears; at the end of that time I went to Mr. C., who prescribed vapourising with strong spirits, a lotion to rub over the eyebrow, and a tonic which suited me better than any I had taken heretofore. In about a year's time I was able to read a little, and in January, 1855, I went to Oxford. During the three years I remained there my eyes continued much the same; on the whole I was able to use them for two or three hours a day with care, using Mr. C.'s vapourising most of the time. At Christmas, 1857, I was ordained, and from that time there has been a gradual decline. I have generally used the douche which Mr. B. prescribed in the morning, but of late years have found it too much for me during the day. I have taken tonics from time to time, never very long without. Of late I have found increased sensitiveness to light, and a return of the dryness. I have been unable now for eight years to face a fire, have worn smoke-tinted spectacles out of doors, and carried an umbrella all the summer."

A gentleman, aged twenty-four, who had suffered for three months from very troublesome hyperæsthesia had long before that been obliged to wear tinted glasses in bright light. He was languid and feeble, and had been especially out of tone during the last year, in consequence, he thought, of residence in a relaxing part of Devonshire. He had formerly suffered much from nocturnal emissions, but not so much of late. He could see perfectly well, but could not bear to read for more than a few minutes. In the open air, provided there was neither sunlight nor strong wind, his eyes were quite comfortable. In him, as in the first case I mentioned, inflammation of the eyelids had preceded the irritability.

A lady was brought to me some years ago by Dr. Meaburn Bright, in whom hyperæsthesia of the eyes was associated with other indications of a peculiar state of the nervous system. She was forty-eight, but still menstruated. She had a family, but had been a widow some years when I saw her. She was of highly nervous organisation, very energetic, and never in the least hysterical. Artificial light was her great dread, and she alleged that she had once been made quite ill by exposure to bright cliffs. Her sight was perfect, but presbyopia was commencing, and she had been supplied with +20 in light blue tint before she came to me. Although they helped her to read they made her eyes ache more, and she could not use them. In addition to this persistent susceptibility as regards both light and work, she suffered from occasional attacks of congestion and heat in the eyes. These attacks usually lasted a week or ten days, were but little helped by any lotion, and seldom involved both eyes at once. Her eyes were usually worse on waking, and she was often annoyed by cold feet. She had had several very peculiar fits, in which she fell very suddenly, but without either fainting or loss of consciousness. Once, she said, she fell so suddenly and retained consciousness so perfectly that she heard her head strike on the hard road.

A gentleman, aged thirty-nine, who came to me in 1872 from a south-coast town, had formerly suffered from great sleeplessness. He always had cold feet, although he considered himself in good health. His vision was perfect, but for some months he had been obliged to desist from all reading on account of eyeache. The ophthalmoscope discovered nothing but turgid retinal veins. It may be of some interest, in connexion with the suggestion that these cases are examples of constitutional rather than of local peculiarity, to ask whether it is common to find any analogous conditions in other organs. When these cases present themselves, the patient's suffering occurs usually in the eye alone. He is not troubled with irritability or pain in any other viscera at the same time. Yet I believe that we may find very close analogies in other parts. Some forms of what is known as spinal irritability are probably of this kind, in which the aching is in the back itself, and is evoked under conditions very parallel with those which bring on eyeache. In the first case which I mentioned, the gentleman who was its subject had, years before, suffered for long from "spinal disease" exactly of this vague character, which, although it kept him to his couch for months, never amounted to more than irritability.

There are cases of ovarian-ache which still more closely resemble—if we make due allowance for difference of organ—the cases in which the eye suffers; and they again find in the male sex a precise parallel in aching testis. It would be a misnomer to call such cases neuralgia, since the condition is one of discomfort, quiet ache, and of reflex disturbance, rather than of the acute and severe pain which is usually implied by the latter term. When the ovary is affected, it is almost always in unmarried women, and often in those who

have experienced some disappointment, now and then when masturbation is not out of question. An aching pain is experienced in one or other iliac fossa, seldom in both at once, which makes all exertion impossible. The pain comes and goes, and is aggravated by all forms of emotional excitement. It is relieved by rest in bed. It is often attended by or causes backache, and it may cause vomiting. It is always a cause of depression of spirits, and is described as a kind of ache which, although not very severe, is still very hard to bear. The liability to it may persist for months or years, and then wholly disappear. Tonics, cold bathing, and bromide of potassium appear to be most beneficial.

When the testis is attacked in men the affected organ feels hard, firm, and heavy, as if the tunica albuginea were contracted. The natural soft elasticity of the organ is lost, and it hangs like lead. The patient complains that it feels cold and that it aches intolerably; often there is varicocele, and almost always a relaxed scrotum. The faintest suspicion of sexual excitement aggravates it, and so also does any kind of emotional anxiety wholly unconnected with the sexual function. It will last for months, then disappear, and then again return. It is always better in the recumbent position, and the use of a suspender is absolutely essential to comfort. Those who suffer from this form of testis-ache are usually, as regards general health and tone, very closely similar to those who experience ocular hyperæsthesia; but the two conditions never, as far as I have seen, happen at the same time to the same person. It would appear that the unstable state of the nervous system expresses itself (relieves itself, so to speak) by causing hyperæsthesia in one part, which, when caused, suffices to protect the rest. Probably in each instance the organ attacked is one which in the individual has been specially taxed or weakened, as in the case of the eye we especially note the influence of overwork and of exposure to artificial light, and of previous attacks of inflammation.] I have known in several cases a liability to this form of "neuralgia testis" last for years, and then wholly disappear. In a few cases it has occurred to married men apparently in good health; but more usually it is met with in celibates who are out of tone. In one case, in a married man in whom it had been very troublesome, abstinence for three months and a country holiday rid him of his trouble, but a single act of intercourse on returning to his wife made him as bad as ever.

Sometimes it is not the ovary or testis which suffers, but some adjacent part—the prostate, the coccyx, the sphincter ani, or the bladder. Cases of causeless bladder-ache are occasionally met with in young men, which exactly correspond with what I have been describing, are unaccompanied by any local disease, and may yet last for years.

Probably also we might find analogous conditions in the other organs of special sense. In the skin they are common, and some of the forms of pruriginous irritability are probably connected rather with general want of tone than with any real disease in the affected parts.

A case somewhat remarkable on account of the absence of prior disease of the eye or eyelids, or any other indications of nervous exhaustion, occurred in the person of a young divine much interested in the pursuit of natural science. This gentleman had been living for some months in London in order to study, and had been reading late, and using optical instruments by artificial light diligently. He was a tall, pale-complexioned man of thirty, single, a total abstainer as regards stimulants, tobacco, and sexual intercourse. The sexual system gave him, he assured me, no trouble, and had never done so at any period of his life. He had never suffered from emissions oftener than once a month. Yet his circulation was feeble, his hands habitually cool or cold, and his pulse wanting greatly in tone. He knew of no derangement in his general health, excepting that he was more than usually susceptible to fatigue, and said that the museum stairs made his knees ache. It was under these conditions that Mr. P. began to suffer from ocular irritability. His right eye failed first, and he found that any use of it by artificial light caused aching in it and pain in the side of the nose. The pain in the nose began on the side of the bridge, and passed down towards the tip. Whenever it came on he was obliged to put aside his book. This inconvenience was at first noticed only by artificial light, but it soon extended to daylight. He was obliged to give up the use of optical instruments; next, to read only by daylight; next, to avoid reading altogether; and lastly, to shun all lighted rooms, both public and private, and sit all the evening in his own apartment in the dark. At one period he was so susceptible that even to sit with a friend through the evening with a candle would cause him neuralgia in the eyes and face, and keep him awake all night. Yet neither eyes nor eyelids were in the least congested, and his power of vision was perfect.

Of course we examined Mr. P. carefully as regards his refraction, though—as might be inferred from the fact that he was even more susceptible to light than to work—there was but little reason to suspect that any refraction defect could explain his trouble. He proved to be hypermetropic a twenty-second, and no inefficiency of the internal recti could be discovered. Glasses to correct this were given him, and he wore them patiently for some time, his own impression being, however, that they increased rather than diminished his inconvenience. At my suggestion, in order to escape all fallacies, he consulted my colleague Mr. Couper, who investigated the state of refraction with his usual care. In the first instance it had been suspected that the symptoms might be due to spasm of accommodation, and atropine had been used. After every occasion of employment of atropine the eyes remained rather more irritable than before. There was a good deal of complaint of neuralgic pain in various parts of the face in this case, but it was almost always thought to be evoked through the eyes.

Now, although Mr. P. would not admit that he recognised any want of tone in himself, and although I confess I have not much to adduce in the form of proof, yet I had, and still have, my suspicions that his case came into the common category in which hyperæsthesia of one part is permitted and favoured by defective tone of the whole. He did not look jolly; and his asserted entire quietude of the sexual system might perhaps imply a low condition of animal vigour. He told me that he had tried beer for a month, and had thought his eyes better, and had then changed back to milk. I advised that he should resort to beer again, and that he should take tonics and try a sea-voyage. At the same time I encouraged him by the assurance that I had never known a case of this form of hyperæsthesia which did not recover, and that it never ended in what he dreaded, "amaurosis."

A case in most of its features closely similar to the preceding was under my care at the same time. A gentleman, aged thirty, who had been closely engaged in an artistic pursuit, had much overworked his eyes by gaslight. This, however, never seemed to hurt him until about three years ago, when he found a degree of susceptibility to gas coming on, which gradually increased until he was obliged to wear tinted glasses all day long, and even on cloudy days to abstain entirely from reading, and do as little as possible with his pencil. Yet he had perfect vision, or almost so, both for near and distance. He had been sent to me by a distinguished specialist in one of our provincial capitals, by whom — 30 had been recommended; but I really could not make out that he needed these or any other kind of glass. Never at any time had he experienced any inflammation of the eyes or eyelids. His eyes were bright, not in the least congested, and he had no tinea. His one symptom was aching and pain in the eyeballs, produced by exposure to light or by use of the eyes. It was chiefly in his right eye. It was never severe enough to keep him awake at night; and was indeed always relieved by shutting the eyes, and especially by going to sleep. When he consulted me he had for nearly two years almost entirely abstained from reading; and he said that more than ten minutes' reading was impossible to him.

Now, Mr. T., our patient, was florid and healthy-looking, and his living depended upon his profession, and he was not in the least likely to feign or exaggerate his inability. To what cause could we attribute his hyperæsthesia? Was he out of tone and in any respect in ill-health? He said that he could eat well, slept all night, and was not aware of any degree of failure of health. He did not suffer from cold feet, but I noticed that his hands were mottled and somewhat livid from feeble circulation. There was something in the tone of his voice which did not suggest vigour. I found that he had been married three years, and that his wife had never conceived. The date of his marriage coincided with that which he assigned for the failure of his eyes. They had been, he recollected, a little irritable in gaslight even before his marriage, but chiefly they had failed after it.

I asked him if he had any suspicion that married life had not suited his health, and he at once replied that he had all along suspected that the failure of his eyes had been connected with it. Yet he did not admit that in other respects he had experienced any very noticeable ill-results. He had had neither headache, backache, nor lassitude. It appeared that prior to marriage he had led an absolutely continent life, and that he had always been a total abstainer from stimulants. You will notice how closely in these details his narrative fits with the preceding one. To complete the case I must tell you that he never smoked, that he was liable to palpitation of the heart, and that once in his life he had fainted away. It is scarcely necessary to say what I recommended in the way of treatment. He was to take wine regularly, to go away from his wife for a month, and to use sea-bathing, and on his return to accustom himself to extreme moderation in sexual matters.

In considering such cases as these one cannot but be struck with the fact that there is exceedingly little to be proved in the way of defective tone. Had the eyes remained good neither of these gentlemen would have recognised any departure from good health.

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING THE

TREATMENT OF FIBROIDS OF THE UTERUS BY ERGOT.

By G. ERNEST HERMAN, M.R.C.P.,
Assistant Obstetric Physician to the London Hospital.

(*Continued from page 616.*)

Case 6.—Fibroid of Uterus—Menorrhagia—Dysmenorrhœa—Relief to Symptoms following the use of Ergot.

S. D., aged forty-one, needlewoman, widow, came to the obstetric out-patient department of the London Hospital on May 2, 1877. Her history was as follows:—Up to her last confinement she had enjoyed good health; had had no previous illness. She first menstruated at eighteen, and had always been regular, the flow being rather copious, and lasting five days, but not being attended with any pain until the last three years. She was married at twenty-four, and had had nine children, but no miscarriages. Her labours were quick, but were always followed by much flooding, and the hæmorrhage generally lasted for a month afterwards. This hæmorrhage had usually obliged her to keep her bed for three weeks, and made her feel very weak afterwards. Her last child was born three years and a half ago; she suckled it three months. Ever since the last confinement she had just before the menstrual period, and during the first three days of the flow, felt weak, and suffered from pain across the lower part of the stomach and down both thighs, in character like that of labour—not continuous, but "off and on," and so severe that it used to lay her up. The flow had lasted seven or eight days, and during the last six months had much increased in quantity. She had had no inter-menstrual pain or hæmorrhage. For two years she had suffered from leucorrhœa. For six months she had been troubled with palpitation and shortness of breath on exertion, especially at the menstrual period. She had been a widow for twelve months, and during that time had lived badly, not usually getting meat oftener than once a week.

She was a woman of masculine features and build; long lips, wide palate, broad chest, small extremities. She was well nourished, indeed rather fat, but decidedly anæmic. On examination the uterus was found to be larger than normal, the body being enlarged out of proportion to the cervix; the increase in size being greatest from before backwards, and seemingly due to a bulging anteriorly. No distinct nodules could be felt, but the shape of the organ did not seem quite symmetrical. The sound entered three inches and a half. The uterus was freely movable. There were no physical signs of disease in any other organ. She was given ext. ergotæ liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., three times a day

On August 15 she said that at her last menstrual period the quantity was not more than had been usual with her before her last confinement. She had very little pain, although this was still more than before her confinement.

On September 26 she said the quantity lost did not exceed what was usual. The pain was less, although still a little more than was customary with her. She was told to leave off treatment, and report herself in three months.

January 2, 1878.—The quantity not increased; the pain less. Thinks herself quite well.

April 3.—Catamenia regular, much the same as before marriage. Still a little pain at the period, though less than formerly. Complains of feeling weak. Is not able to live well, getting meat only once a week.

Case 7.—Fibroid of Uterus—Hæmorrhage—Leucorrhœa—Pain—Relief to Hæmorrhage following the administration of Ergot.

M. B., aged thirty-nine, engine-fitter's wife, came to the obstetric out-patient department of the London Hospital on March 17, 1877. She said that until her present illness she had always enjoyed vigorous health. She had always been in comfortable circumstances, and had had no previous ailment of any kind. She first menstruated between the ages of twelve and thirteen. Previous to marriage the catamenia were irregular as to time, and very variable as to quantity, but the flow had never been accompanied with pain. She was married at eighteen; she had had eleven children, the last five months before coming to the hospital. All her labours had been easy, except the last three, which were "lingering"; none of them were accompanied with much hæmorrhage, except the last, after which loss of blood persisted for six or seven weeks. Her present ill-health dated from this last confinement. Ever since then she had suffered from pain in the back and in the left iliac and hypochondriac regions—a pain which came and went without apparent cause; some days absent, and some days so severe as to make her "fit for nothing"; not relieved by lying down. There was also a feeling of "heat all over the stomach," and occasional pruritus. Menstruation had since the confinement been much more copious than before, the flow lasting more than a week, and being followed for a few days by a brownish discharge like the lochia; the period was not attended with any increase of pain. Between the menstrual periods there was leucorrhœa. There had never been any urinary or rectal trouble.

She was a big, stout, florid brunette, with broad chest, masculine build and features; not at all anæmic, and very well nourished, indeed fat. By abdominal examination nothing could be discovered, on account of her obesity. Per vaginam, the cervix was found short, the os externum wide. To the right of the uterus was felt a rounded tumour, apparently about the size of a small orange, very hard, and presenting irregular rounded nodules, movable, and moving with the uterus. The sound entered three inches and a half. She was given ext. erg. liq. ʒss., mag. sulph. ʒj., acid. sulph. dil. ℥v., dec. cinch. ad ʒj., three times a day. She took this for a little more than two months. During this time the menstrual hæmorrhage diminished to the normal quantity; the pain was on the whole better, but returned occasionally. She then left off the ergot, owing to her being away from London for a time, and she then consulted a medical man, who gave her a mixture of potassium bromide and quinine. This was followed by improvement as to the pain, but the catamenia began to be again more copious than usual.

On December 4 she began to take ext. ergot. liq. ʒss., spt. amm. arom. ℥xx., aq. ad ʒj., three times daily. She took this until March 12, 1878. It was then noted that the catamenia were regular, and less copious than formerly. She still experienced pain in the back on exertion, and had leucorrhœa, though much less than before. She also had a "strange chilly feeling" in the left side. The tumour appeared to be much the same. She was told to leave off treatment. She remained very well until June, when she had for a fortnight the old pain in the left iliac region.

September 24.—It was noted that her general health was much better. Were it not for the pain in the left side on exertion she would think herself quite well. The catamenia were regular, and not more than usual in quantity. On examination the tumour seemed to be much the same.

Case 8.—Fibroid of Uterus—Hæmorrhage—Relief to Hæmorrhage following the administration of Ergot.

A. G., aged forty-nine, fishmonger's wife, came to the obstetric out-patient department of the London Hospital on June 15, 1878. I unfortunately have not very full notes o

her case. She said she had had ten children and three miscarriages, the last confinement having been ten years before coming to the hospital. Her complaints were, that for two or three years her belly had been getting bigger, and that for two months she had had constant vaginal hæmorrhage. Until two months before attendance, menstruation had been regular, but she had suffered from a white discharge in the intervals. She was very fat. On abdominal palpation an irregularly rounded tumour could be felt reaching to halfway between the umbilicus and the ensiform cartilage. The vagina was found elongated. The cervix uteri was drawn so high up that it could with difficulty be felt, but it moved with the tumour. The sound entered until its handle was at the vaginal orifice, and it therefore could not be pushed further without putting the patient to much discomfort. She was given ext. erg. liq. ℥ss., spt. amm. arom. ℥xx., aq. ad ℥j., three times daily.

June 29.—She thought the hæmorrhage had been less since taking the medicine.

September 4.—Had not lost any blood since the last note.

January 28, 1879.—In answer to an inquiry, she again attended. She left off coming to the hospital after the last note was made, on account of a bad leg. She lost some blood at the end of September, the flow lasting eight or nine days and being copious. She had another hæmorrhage, of about the same duration and quantity, just before Christmas. The tumour reached to about the same point. The cervix uteri was so high that it could not be felt. A bougie entered eleven inches and a half from the vaginal orifice.

Case 9.—Fibroids of Uterus—Hæmorrhage—Pain—Relief to Symptoms following the administration of Ergot.

A. J., aged fifty-one, porter's wife, came to the obstetric outpatient department of the London Hospital on November 17, 1877. She gave the following history:—She had never enjoyed very good health. For the last twenty-four years had worked very hard as a dressmaker, often sitting up at night. She had often been in want, but not during the last six years. At one time (she had forgotten the date) she suffered from a skin disease on her elbows and knees, which was once all over her, "like a leper"; for this she was treated with arseni and got better. Since the age of twenty she had been subject to headaches, brought on by any exertion. For the last twenty-five years she had been subject at times to hysterics. Fifteen years before coming to hospital she was ill for three months with "liver"; but she could not mention any more definite symptoms than cough and loss of appetite. Eight years ago she had a bad sore throat which lasted two weeks. About the same time she had a fall, after which she was in bed a week. From this she dated her present illness. For two years after the fall she had a pain in the left side, and then a pain in the right side. The latter had continued to the time of her coming to the hospital. When in pain she had been in the habit of taking stimulants. She first menstruated between the ages of fourteen and fifteen, and was regular until her marriage, the flow lasting eight days, being copious, and attended with much pain, but not enough to lay her up. She married at the age of twenty. Twelve months after marriage she had a copious hæmorrhage, which was preceded by three months' amenorrhœa. This was believed to be a miscarriage, but no doctor attended. She was never again pregnant. After this the catamenia became irregular, coming on at intervals of from six weeks to two months, the quantity being increased, and the pain worse. She became a widow when aged twenty-nine, and was married again when aged forty. During widowhood menstruation was more regular. She said she had been getting ill ever since the above-mentioned fall, eight years ago. Ever since then the catamenia had been getting excessive in quantity, and the least excitement or nervousness would bring on hæmorrhage. During the last twelve months the bleeding had lasted from six to eight weeks at a time. A "gnawing, scraping pain," referred to the right hypochondriac region, usually came on from a day to a week before the hæmorrhage, and lasted during its continuance. In the intervals between the losses of blood she had a pinkish-white, ill-smelling discharge. For twelve months she had suffered from lumbar pain, coming on if she sat long. For six months she had been losing flesh. She complained also of fulness after meals, flatulence, and nausea, with vomiting of watery fluid on rising in the morning, and of nervousness. She was not apparently much wasted, but was somewhat anæmic. There were no signs of disease in heart or lungs, except a few bronchial râles. Superficial pressure over any part of the abdomen produced manifestations of pain and contraction of the abdominal muscles. Per vaginam, the os uteri was found to be high up and far back. A hard, bossy tumour was felt through the anterior vaginal wall, continuous with the cervix. By bimanual manipulation this could be felt to move with the cervix, and to reach to within an inch of the umbilicus. She was given ext. erg. liq. ℥ss., spt. amm. arom. ℥xx., aq. ad ℥j., three times daily. She took this until March 26, 1878. She then said that during the last three months the hæmorrhage had not been so copious, and the pain was much better, but she felt low and weak. Upon physical examination the tumour seemed much the same. She was told to leave off medicine, and come in three months' time.

On July 24 she said that the menses were still profuse, but less so than formerly; her pains were better, and she felt stronger. She thought herself on the whole a great deal better. The tumour seemed much the same.

Case 10.—Fibroids of Uterus—Hæmorrhages—Leucorrhœa—Relief to Hæmorrhage following the use of Ergot.

A. B., aged fifty, waterproofer, came to the obstetric out-patient department of the London Hospital on October 10, 1877. Her history was the following:—She had never enjoyed vigorous health. She first menstruated between twelve and thirteen; the catamenia had always been regular, and, until the present illness, lasted three or four days only, were not copious, and not attended with pain. She was married when aged seventeen, and after two miscarriages, each in the fourth month of pregnancy, she had a child when aged twenty; the labour and recovery were good. Her husband died when she was between thirty-two and thirty-three, and she was married again at thirty-eight, but she had not since been pregnant. Her second husband died when she was aged forty-three; he had for some time previously been "crippled with rheumatic gout," and therefore the patient had had to work very hard, both before and after his death. She ascribed her illness to "overwork and anxiety." For four or five years before coming to the hospital she had suffered from a white or yellow discharge, and for the same time from an occasional feeling of numbness in the left side, as if she were going to lose the use of her limbs. Until twelve months before coming to hospital menstruation was the same as before marriage; during this period the flow had been getting more copious; it now lasted seven days, but was regular as to time. There was a feeling of bearing-down during the period, but no pain. She had no pain in the inter-menstrual period. Five weeks before attendance she had suffered from "rheumatism" in the left elbow, and since then had been in bed for two weeks with what was called "nervous fever." She had no appetite and was getting thin. She was thin, worn, and languid-looking; rather dirty; and about her body were spots having the characters of ecthyma. The fundus uteri could not be felt by abdominal palpation. Per vaginam the cervix was found to be thick, and the uterine body bent forward. On bimanual examination the uterus was ascertained to be generally somewhat enlarged; from the left side of the fundus a hard rounded nodule, about the size of a small walnut, could be felt jutting out; and about halfway down on the right side another nodule could be felt, about the same size, but not so projecting. The uterus was quite movable. The cervix was very slightly eroded, and presented some yellow spots indicating occluded glands. She complained of a slight cough, and the expiration at the lung apices was slightly prolonged. Her temperature was 99°. She was given ext. erg. liq. ℥ss., spt. amm. arom. ℥xx., mag. sulph. ℥j., aq. ad ℥j., three times daily.

December 29.—She said she had been much better since treatment. During the last ten weeks she had only menstruated once, this being seven weeks ago; the flow was scanty. The leucorrhœa was better. She had gained flesh.

March 2, 1878.—She left off taking medicine about a fortnight after the last note. She last menstruated three weeks ago, copiously, but not so much as she had done before coming to the hospital. Leucorrhœa better. Condition of uterus much the same. Patient says she feels very much better.

June 1.—Catamenia regular since last attendance; not more copious than usual. Appetite good; bowels regular. Leucorrhœa still present.

12th.—Complains of much vaginal discharge. Uterus seems to me rather larger than formerly; there is a distinct outgrowth, rounded and hard, from the left side of its body. Much yellow acid secretion in vagina.

Shortly after this the patient was again married. She came to me on September 18. She said that after marriage till September 16 she had had amenorrhœa, and she had thought that her stomach swelled. Then flooding came on, and had continued since. She was given an ergot mixture, and advised to consult a medical man in the place she now lived in, as it was a long distance from town. I have not seen or heard of her since.

Case 11.—*Fibroid of Uterus Fixed by Adhesions—Dysmenorrhœa—Sterility—A Previous Incision of the Cervix followed by no Benefit, but rather Aggravation of Symptoms—Marked Relief following the use of Ergot.*

M. A. G., aged thirty-two, engineer's wife, came under my care as an out-patient at the London Hospital on March 25, 1876. Her history was the following:—She first menstruated at eighteen. The catamenia had always been regular, the flow lasting three days, and being very scanty and pale, but accompanied with severe pain in back, abdomen, and down thighs, on first day only. She had been married sixteen years, but was never pregnant. Except for the painful menstruation, she had enjoyed good health until the present illness. This came on at Easter, 1875, when, while walking, she was suddenly attacked with severe pain in the lower part of the abdomen, right iliac region, and down right thigh, and she shivered. The pain was so great that she could not walk. A medical man attended her, and a few days afterwards she was seen by a physician, who told her that she had a fibroid tumour. This pain did not abate. The menses became rather more abundant, lasting a week, but were never profuse. She never needed more than eight or nine napkins during the whole of the period. In the intervals between the menstrual periods she suffered from a copious yellow discharge. These symptoms continued for six months, at the end of which time she went into a hospital. The cervix was here incised and dilated with tents, and she was told that she had a fibroid tumour. She remained in the hospital a month. After this treatment the catamenia diminished somewhat in quantity, but her pain got worse.

When she came under my care she complained of a constant thick yellow discharge from the vagina; also of a constant "gnawing and gathering" pain felt in the hypogastrium, back, and down the right leg, which she described as "shooting, and drawing her up." This pain was so severe as to make her get up at night and walk about the room crying. The bowels were confined, and there was much pain on defæcation. During menstruation the pain was so severe as to oblige her to lie in bed with her knees drawn up. On examination a large, hard, fixed mass could be felt filling the upper part of the pelvis. To the right of the median line it could be felt above the pubes. The cervix was small, hard, pointing backwards, and had evidently been incised bilaterally. The sound could not be passed more than one inch and a half. She was given various kinds and combinations of tonics and aperients, with morphia suppositories to be used when in pain; and this treatment she continued, without other than temporary amelioration in her symptoms, until February 14, 1877. She was then given ext. erg. liq. ℥ss. three times a day.

May 23.—It was noted that she had taken the ergot regularly since the last note. She considered herself very much better. Her pain was less; though she still used the suppositories she did not need so many of them. Formerly the pains in her legs were so severe that she had to get people to rub them; this was not so now.

December 5.—She had continued the use of ergot. The pains were much better.

January 9, 1878.—Pain in the legs is now her only complaint; were it not for this she would think herself well. The yellow discharge has ceased.

November 16.—Now complains only of pain down the right leg, and in the right side of the abdomen; this usually comes on about 2 p.m., after the morning's exertion. She now only uses one morphia suppository per day; she has formerly been obliged to use three, and to take laudanum beside. Catamenia regular, not so much pain as before operation.

March 5, 1879.—So far as can be judged, from recollection of its size, the pelvic mass appears smaller than formerly; but at so long an interval it is difficult to remember what were its exact dimensions.

NOTES ON SURGERY IN SPAIN.

By RICHARD BALLOTA TAYLOR, L.R.C.P.,
Fellow of the Spanish Medico-Chirurgical Academy.

Although ovariotomy may have taken root in Spain later than in certain other continental nations, there are ample proofs that now the practicability and the advantages of the operation are once fully recognised, Spanish surgeons will not be the least successful and enterprising operators.

In a former communication I stated that several ovariotomies had been of late successfully performed in this country. My present remarks are not so much to make known the favourable termination of another case of the kind, as to give publicity to a novel method of dealing with the pedicle, originated and practised with the best result by Dr. Fred. Rubio of Madrid, the first surgeon who performed ovariotomy in Spain. The object proposed by the author is twofold. In the first place, he aims at obviating the inconveniences attending the weight and bulk of a metallic clamp, without risking the perils of secondary hæmorrhage incident to the ordinary ligature. The other—and to my mind the most important—feature of the method is its applicability to cases in which neither clamp nor ordinary ligature can be resorted to. For sake of illustration we will conceive three different sets of cases—one in which the pedicle is long, another in which the pedicle is short, and another in which there is practically no pedicle.

In the first set of cases Dr. Rubio secures the pedicle by means of an india-rubber tubing of a thickness proportionate to that of the pedicle, tightly applied after the manner of an Esmarch bandage, and fastened by a knot. Above this knot as many spiral turns of the same tubing are made as may be necessary to allow the pedicle, thus enveloped, to protrude about an inch and a half from the outer wound; these latter turns must, however, be less tightly applied than the former one, and the two ends are then tied firmly together. The protruding portion of the pedicle, with its india-rubber covering, is now wrapped in an antiseptic dressing and transfixed, to prevent its escaping into the abdomen, by two stout silver nickel-coated needles. The india-rubber contracts with the heat of the body, constriction of the pedicle is secured, and all fear of hæmorrhage is removed; the pedicle becomes gradually detached, and falls off in from ten to twenty days.

We will now take the case of a pedicle too short to admit either a clamp or the simple means just described. Bearing in mind that the cyst of an ovarian tumour is but the expansion (so to say) of the pedicle itself, the author proceeds to the formation of an artificial pedicle of a convenient length. This he executes in the following manner: he first applies provisionally a sort of Esmarch bandage upwards in the direction of the tumour, then makes a series of longitudinal incisions in the pedicular expansion, forming a kind of strips, separates them one from another, and scrapes their inner surface in such a manner as to leave nothing but the serous and fibrous membranes. Alternate strips of the artificial pedicle thus prepared are now cut away, and below the digitations which are left an india-rubber tubing is firmly tied on; the artificial portion of the pedicle is dealt with as in the former case, by which means all traction and secondary hæmorrhage are most effectually avoided.

In the case of an ovarian tumour in which there is no natural pedicle, the proceedings are similar to those of the last category, excepting that the provisional and preliminary ligature has to be applied near the uterus, and that the strips which are to form the artificial pedicle must be longer. In these latter order of instances the pedicle is of necessity left within the abdomen, but as the caoutchouc tubing is perfectly innocuous it gives no further trouble.

Dr. Rubio's procedures were lately put to the test. A large multilocular cyst, with partly liquid and partly gelatinous contents, was removed on March 7: it was very intimately adherent to the omentum and abdominal parietes; less so to the intestines and lower surface of liver. The parietal adhesions were, on the right side, so firm that, notwithstanding the utmost care and perseverance, small

portions had to be left attached to the peritoneum. The operation, as well as the two subsequent dressings, was conducted on strictly antiseptic principles; the pedicle came away on the 28th, and the patient left her bed on the 29th. From the day following the operation the patient's state began to be satisfactory; she took solid food on the third day, and her temperature ranged from 98·8° to 100·4°.

Santillana.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

A CASE OF DISSEMINATED SCLEROSIS.

(Under the care of Dr. BRISTOWE.)

ANNIE B., aged thirteen, was admitted on May 12, 1879. Her father and mother were stated to be alive and healthy. She had three sisters, all living and healthy. She stated that she herself had always enjoyed good health. She had had measles, but never either whooping-cough or scarlet fever. About two years ago her legs began to feel weak and trembled, and while she was running her knees gave way, and she fell down and cut herself. About a month after this, while walking in her sleep she fell downstairs and struck her head. She stated that she had never walked in her sleep before the attacks of trembling commenced, but had done so three times since. She complained also of pain in the back, which continued until the end of the first year of her illness; then incontinence of urine appeared, the pain in the back still remaining. She was then an in-patient, at a hospital for some time, and subsequently an out-patient, but with no good result. When admitted, she had been out of hospital for about six months, during which time she thought the trembling of the legs and hands had got rather better, as also did the pain in the back, but the incontinence became worse. There had been no appearance of catamenia. An internal squint was first noticed about six months before admission, which seems to have improved since.

On admission, patient was a well-developed, well-nourished child; the head was large, the forehead prominent, and she looked older than her age. There was no tenderness or curvature down the spine, and nothing abnormal was noted about the urethra, at which part she had complained of some discomfort. As she sat up in bed, the head and upper part of the body were seen to be subject to slight involuntary rhythmical tremors; similar tremblings were also observed in both hands, especially the left, when she raised them to the mouth or carried a glass of water to the lips; the lips and tongue also trembled in speaking, as did the legs in walking. She was able to put the feet down firmly, and there was no dragging of either leg; she could stand firmly with feet together and eyes shut. The patellar reflex was exaggerated to a marked extent. She walked with difficulty, keeping her legs wide apart, and moving them with uncertainty, and tending to lose her equilibrium at the moment of turning. But there was no incoördination or dragging; and, although there was loss of power, there was no wasting and no loss of sensation. The enunciation was a little indistinct, and she said herself that her voice seemed to shake a little. There was no loss of memory; she could read sentences; repeated the Lord's Prayer accurately and fast, and the words were fairly distinct. When answering questions, speech was sometimes slow, and she said it was often a trouble to her to talk because the words did not seem to come. In writing, a little tremulousness was shown in some of the letters, and she said she did not write so fast as formerly because of her hand shaking. There was convergent strabismus of the eyes and slight nystagmus. She stated that she sometimes saw double, but that her eyesight was good. She had occasional vertigo when walking, and at these times if she did not sit down she would fall. Her mental condition seemed good; she laughed or cried very easily, and her disposition seemed happy. The lungs and heart were normal; the pulse was 132, soft, small, and compressible. The urine was passed involuntarily during sleep, and during the day she had sudden and frequent calls, which, if not immediately obeyed, resulted in incontinence. There was no pain accompanying micturition. In other respects patient seemed fairly normal. The eyes were subsequently examined by Mr. Nettleship, who considered the strabismus due to hypermetropia, and ordered + 20 glasses to be worn. The case was originally sent to the hospital as one of chorea, but observation showed that the symptoms were not those of that disease. On several occasions it was noticed that in walking her legs became crossed, and she then fell at once. The other symptoms have undergone no alteration, and patient remains in the hospital (June 14) under observation. No purely medicinal treatment has been adopted.

PARAPLEGIA FROM CARIES OF THE SPINE.

(Under the care of Dr. BRISTOWE.)

Eliz. M., aged twenty-three years, was admitted on March 26. Her family history presented no noticeable features. She had always been healthy until about two years and a half ago, when she went to the Cancer Hospital for some disease of the right breast, where a scar was visible on admission. About the autumn of last year she suffered from a cold and had troublesome cough with expectoration. She had occasional pain between the shoulders, but never in the lower dorsal or lumbar region. The cough lasted for about a month, and she then noticed that her legs were often cold, and that there was occasional tingling in them, with loss of power and tendency to rigidity. For three months before admission she had been confined to bed, and about a month afterwards she had some incontinence of urine which lasted for about two weeks. At the same time there was incontinence of fæces, which has persisted more or less. On admission, patient was a well-nourished woman, apparently healthy, and on being questioned she stated that her back was straight, and that she was not aware of anything being wrong in that part. On examination, however, there was found to be a marked angular curvature in the region of the lower dorsal spine, the eighth, ninth, and tenth dorsal spinous processes being especially prominent. There was neither pain nor tenderness along the spinous processes. There was complete loss of power over the lower extremities, with rigidity and occasional tremors. The legs sometimes became flexed at the knees, and then she had no power of extending them. Tremors could be excited by flexing the ankles, and could also be stopped when present by a similar proceeding. Reflex movements were marked and sensation was impaired in both limbs. This impairment was slightly more marked on the right side than on the left. Sensation was always referred to the middle of the foot, whether the foot or leg was touched. There was no apparent atrophy of the limbs. The bowels were somewhat confined, and had to be regulated by medicine; there was occasional incontinence, when the motions were loose. The urine, which was normal, was passed about twice a day, and there was occasional loss of control over the bladder. The tongue was clean and dry; the heart and lungs were healthy; the temperature was normal.

April 7.—The bowels have been open daily, and the general condition is unaltered.

22nd.—Patient thinks that her legs feel worse; they are more helpless, and she says they are like a dead weight. They have not trembled so much lately.

May 10.—She has complained recently of severe pain all down the legs, chiefly in the right. She has had similar pains, but less severe, for some time.

15th.—She has had pain in both legs, like the pricking of pins, and has had feelings as if fluid were trickling down the legs.

20th.—She is beginning to have some voluntary power over the muscles of the paralysed extremities. She can move the left great toe, and some of the other toes of both feet.

June 2.—The faradic current was used this morning. The muscles of the left leg responded to a slight current, especially the extensor longus pollicis and the tibialis anticus. The action of the extensor communis digitorum was not so good; the quadriceps extensor of the thigh and the biceps acted well. There was no action of the muscles of the right leg beyond a slight quivering until the strength of the current was increased.

3rd.—The legs faradised again. There was apparently

not so much difference between the muscular contractility of the two limbs. Patient thinks that the legs extend after the usual flexion with more ease than heretofore.

11th.—There is still some rigidity of the limbs, but sensation is perfect, and the power of movement is gradually returning.

In remarking on this case, Dr. Bristowe pointed out that there had been at no time any rigors, rise of temperature, or pain indicating that inflammatory action was going on in the region of the dorsal vertebræ, and that it was not until a physical examination had been made that it was discovered that the paraplegia was due to caries of the spine and angular curvature, with consequent pressure on the cord. He had seen several similar cases, in one of which a psoas abscess subsequently appeared, and sensation and movement were quite re-established. In this case the patient was going on satisfactorily, and the cord was resuming its functions, and there was no evidence of any collection of pus about the spine.

CENTRAL LONDON SICK ASYLUM,

CLEVELAND-STREET, W.

DIFFUSED ANEURISM OF ABDOMINAL AORTA.

(Under the care of Dr. LEDIARD.)

JAMES M., aged twenty-eight, formerly a printer, latterly a hawker, and for six years in the Militia, was admitted on October 15, 1878. He stated that his mother died of a decline at forty-three, and his father died suddenly at fifty-four from "the rupture of a bloodvessel." Patient has always lived in London, but being in the "Reserve," was ordered to the "Curragh" last April, up to which time he had always had good health. Is married, and has one healthy child. Denies syphilis, and there is no trace of any. Whilst in Ireland the weather was wet; he had two blankets only, and thinks he got cold. He was off duty for a few days for rest in the Military Hospital in July, and at that time he had pains in the left side and round the body. He never sustained any injury. He came home in August, and has not been able to work since, having been troubled with a great feeling of weakness and a desire to micturate frequently. He used to be well nourished, but has lost flesh now for two months. He used to have a good colour. He has had neither cough nor dyspnœa, but he has been parched with thirst.

On examination, patient is thin, pale, and very anæmic; pupils equal and natural; tongue moist, pale, and a little furred; no pyrexia; there is some dyspnœa; chest-walls are very emaciated, but the lungs are healthy; pulse 133. Heart's action feeble; no murmur present; at apex the first sound only is heard. Urine muddy with urates, and contains no albumen. A firm, inelastic, immovable tumour is felt on the left side of the abdomen; it is continuous with the spleen, extending as far as the left groin, advancing as far forwards as the navel; percussion over it is quite dull; its surface is smooth, and there is no tenderness over it. The liver is of natural size, and the rest of the abdomen is resonant. Microscopical examination of the blood shows large quantities of white cells in very unusual proportion, and the blood is watery. On the evening of admission he complained of inability to pass water. On using a catheter, the bladder was found to be by no means full, and apparently quite healthy. He had frequent subsequent attacks of dysuria.

Ophthalmoscopic examination showed no hæmorrhages or neuritis; the fundus was pale and the arteries were healthy. His sight was good.

October 19.—He is more feeble, and there is some cough. There are distended veins over the left side of the abdomen, and an arborescent appearance of the cutaneous veins over the left iliac region. The catheter end, when passed, cannot be depressed as usual, apparently owing to some obstruction in the pelvis, above the bladder. There is greater pallor and parching, some sickness, and the stools are offensive. There is further œdema of the abdominal wall on the left side on deep pressure, but none of the lower extremities. Urine contains uric acid plentifully.

21st.—There is widely spread discolouration in the left groin, over the left hip-joint, and over the left loin from the ribs to the sacrum. There is now pulsation over the entire tumour, which is seen as well as felt; it is best marked below the ribs on the left side. A faint systolic murmur is heard over the tumour. Patient is sallow.

27th.—A double murmur is faintly heard in the left loin. He complains of powerlessness of the left leg from the knee downwards, with stiffness and cramp. The tumour has increased considerably, and now bulges forwards and extends beyond the middle line to the right of the navel. It was punctured with a fine silver exploring-needle, but nothing came away but a drop of dark blood, which shewed no increase of white cells.

29th.—He is slightly jaundiced. Tumour is very prominent. Opium was given to relieve pain in the abdomen. There followed offensive diarrhœa; and he died exhausted on the 31st, though somewhat suddenly at the end.

On post-mortem examination, several pounds of recently extravasated blood were found in the peritoneum, and, on clearing them away, an enormous mass of clot was found forming a tumour behind the peritoneum on the left side of the abdomen, and occupying the limits denoted during life. The sigmoid flexure was displaced forwards, and lay over the tumour, having narrowly escaped the puncture of the exploring-needle, which had, however, done no mischief. On turning the clots out, an aneurism of the abdominal aorta was found the size of the fist, and situated just below the diaphragm. Two vertebræ were eroded, and the sac had ruptured on its left side, behind the peritoneum, the patient having slowly bled to death in this manner; the final hæmorrhage into the peritoneum being occasioned by the fingers of an examiner bursting the thin peritoneum—a circumstance which shows how carefully a large diffused aneurism should be handled. The left femoral vein was found to contain a thrombus, partly ante- and partly post-mortem. There was no peritonitis present. The liver was healthy, but very pale; spleen small and friable; heart and lungs perfectly healthy. The aorta immediately above the aneurism was healthy, but there was commencing atheroma about the arch. The left kidney was very much flattened, but the ureter was intact. Besides the large tumour formed of blood-clot, blood had passed down into the pelvis behind the peritoneum in all directions.

Remarks (by Dr. Lediard).—I have been unable to find much written on the subject of diffused abdominal aneurism, and should be inclined to believe that these cases are not commonly met with. All authors allude to aneurisms of the abdominal aorta becoming diffused, but the symptoms have not been dwelt upon. That these cases are not always easy to diagnose is evident, for in the fifth volume of Russell Reynolds' "System" I find it stated that the relation between a diffused aneurism and vascular cancer is sometimes very close. Again, the symptoms of a diffused aneurism appear to be by no means constant. Dr. Coupland records a case, in the twenty-sixth volume of the *Transactions of the Pathological Society*, in which there was neither undue pulsation nor bruit noted. It would appear that a very large number of abdominal aneurisms rupture (77 per cent., Sibson), the greater number doing so either into the peritoneum or behind it. Dr. Sibson gives 22 of the above percentage as bursting into the left hypochondrium behind the peritoneum, but he goes on to say, "I exclude from these rupturing behind the peritoneum four cases that presented enormous diffused aneurismal sacs extending to Poupart's ligament and lasting for months."(a)

USURPATION OF A PHYSICIAN'S NAME.—An action has been brought by Dr. X., a Lyons hospital physician, against a *pharmacien* for having advertised his name and titles in a recommendation of a preparation, termed after the *pharmacien* "Quina-Abrec." This preparation the physician declared he had never even heard of; and yet he has had to submit to the degradation of having had his name advertised in the newspapers as recommending its use. The reply of the *pharmacien*, that another physician of a similar name to Dr. X. was intended, was pronounced a subterfuge, as on examination of the advertisement it became evident that it really intended to indicate the Lyons hospital physician under cover of his namesake. Abrec, the *pharmacien*, as soon as the action was brought, published a rectification; but as this was deemed insufficient, as only adding to the publicity of the remedy, without benefiting the complainant, the *pharmacien* was condemned to pay all the expenses and 300 fr. damages.

(a) Sibson's "Medical Anatomy."

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Medical Times and Gazette.

SATURDAY, JUNE 21, 1879.

THE ARMY MEDICAL DEPARTMENT.

It is now more than a year since the unpopularity of the Army Medical Department reached such a pitch, notwithstanding the issue of rapidly successive new Warrants in the hope of attracting candidates, that the then Secretary of State for War, Mr. Hardy, came to the conclusion that it was useless to go on inviting candidates to come forward for the Service. He was compelled to admit, though most reluctantly, that the latest panacea (the short-service system) had failed to attract eligible candidates for service as surgeons in her Majesty's Army, and he stopped the half-yearly entrance-examinations as far as that Service is concerned. Next he appointed a War Office Committee to inquire into the subject, and to report on the measures to be adopted in order to attract eligible candidates in sufficient number. That Committee reported many months ago, and made a number of recommendations with the view of attaining the desired end. But no action has yet been taken on this report, though we have been for some months at war. A large number of civil surgeons have had to be engaged and sent out to supplement the military and naval surgeons with our troops in South Africa. And in consequence of the large number of military medical officers who have been sent to the Cape, the various home stations have been almost drained, and civilian, militia, and volunteer surgeons are being employed to take care of the sick at Fort Pitt Hospital, Chatham, and other stations. It is marvellous that till Monday last all this was allowed to go on without any inquiries being made in Parliament on the subject; but at last the state of the Army Medical Department has attracted attention in the House of Commons. On Monday night the House went into Committee of Supply, and proceeded with the consideration of the Army Estimates. On reaching the vote of £266,200 for medical establishments and services, Lord Elcho made some observations relating to the provision made for the sick and wounded in South Africa; and Dr. Lush took the opportunity of expressing the hope that the Secretary of State for War, seeing the difficulty of providing properly qualified medical officers for the Army, would carefully consider the whole subject with the view of providing properly educated men for the Service, rather than repelling them from entering it. These remarks drew from Colonel Stanley information which is, in some points, satisfactory. He said that it did not seem likely that in this war a large number of wounded would be brought to the station hospitals, but that the hospital accommodation already provided was far in excess of anything contemplated short of two or three general actions of very large dimensions. The hospitals were fully equipped, and there had been no demand whatever for further medical comforts. A considerable credit had been sent out by the National Aid Society to the Consul-General at the Cape, but the amount drawn had been very small indeed, and had been expended for not strictly medical comforts, but for tobacco "or something of that sort." Connected with the Medical Department proper there are, we learn, at present 58 officers at the Cape, 7 on the passage, and 13 under orders—in all, 78 naval and military surgeons; of civil surgeons, exclusive of those employed locally, 38 there, and 2 on the passage; of the Army Medical Corps, 8 there, and 1 on the passage; of non-commissioned officers, 275 there, and 128 on the passage; and within the last few days, though no demand had been made, Colonel Stanley had placed under orders one lady superintendent and six nurses. He believed, he said, that no army in the field had ever had its medical wants so far met in proportion to its strength. It is satisfactory to be thus assured that our soldiers in the field are fully provided with medical officers and medical comforts; but it is far from satisfactory to know that such provision could not have been made by the Army Medical Department alone. As regards the future of the Army Medical Department, Colonel Stanley's statement leaves much to be desired. He observed that it was a matter of considerable delicacy and intricacy to revise the conditions of the Medical Service, but that, speaking generally, he might say that it was his intention, as far as possible, to carry out the recommendations of the War Office Committee which affected the pay and status of the medical officers. But the recommendation that certain medical bodies should have the power of nominating candidates for the Service had given him considerable trouble. He thought it might be wise to invite the help of the medical bodies, but it was difficult to lay down the conditions under which such aid should be given, and he expressed a hope that the honourable members for Salisbury and Edinburgh University would confer with him upon the subject. He observed that the proposal had been regarded as a return to the system of nomination, and an abandonment of competition, but that in fact competition had ceased when there were more vacancies than candidates. He expressed himself as very anxious to give effect as soon as possible to some improvement in the Service, and with that object he had obtained the permission of the Exchequer to include a rather larger sum this year in the Estimates, on account of the important addition which he hoped would be promulgated to the Medical Service before the close of the year. We have thus obtained some important information as to when a new Medical Warrant is likely to be issued, and as to its probable character. But it must be observed that, looking at the state of the Service, the gallant Secretary of War is taking a terribly long time in considering how to improve matters; and that if he does not go, in points regarding the status of the medical officers, beyond the recommendations of the War Office Committee, there does not seem to be any great likelihood that the new Warrant

will be satisfactory and successful. We are glad to learn, however, that he had decided that the sick-leave allowed to medical officers shall be extended from six months to a year; and that, under the new Warrant, employment will be open in some cases to medical officers on half-pay.

HOSPITAL GOVERNMENT.—No. II.

In the number of this journal issued on February 8 we gave some reasons for thinking it to the advantage of a large hospital to have a properly paid medical superintendent. We alluded to the feeling which exists in many quarters against such an appointment, and we expressed an opinion that much of it was simply because a medical man is, in such a position, so much more efficient than a layman, that, if injudicious, he can do very much more harm. We purpose now to consider some of the principles by which the acting head of a hospital, whether a medical man or a layman, should be guided, and some of the mistakes into which he may fall, and against which he should be on his guard. We speak of "the superintendent," but our remarks apply to the managers of hospitals, whether a committee or one officer. We say nothing of the all important qualifications for such an office which will occur to everyone. We assume that the person in question is an educated man, with both the tone and feeling of a gentleman, and the industry and method of a man of business, and that he habitually puts before him the welfare of the institution as his single aim. But it is possible for such a man, with the best intentions and the utmost zeal, to make grave errors; and, therefore, we think it worth while to point out some into which he may fall.

Such an officer has many different duties to perform. Some of them are simply those of a steward, and a committee will do wisely to burden him as little as they can with petty work of this kind. It is in the higher departments of the hospital, and more especially in dealing with its indispensable and most valuable servants, its medical staff, that knowledge, judgment, and tact will be called for. A medical staff properly selected and rightly dealt with by the authorities will make the cares of the governor light; while from the opposite state of things, endless difficulties will arise.

The great rule for a hospital superintendent should be that which Mr. Herbert Spencer lays down as the principle of good government: he should beware of over-legislation, but he should enforce the fulfilment of contracts. Attention to this broad generalisation will save him from two opposite errors, which beset him as a kind of Scylla and Charybdis: the fault of needless and therefore improper interference on the one hand, and that of laxity of discipline, and consequent disorder and neglects on the other.

Undue interference, over-legislation, is the fault to which energy and zeal are prone. The superintendent—young perhaps, new to his work, anxious to improve things, and sanguine of being able to make them better, is prone to seek remedies for admitted faults, in the remodelling of systems, an increased stringency and minuteness of rules, the creation of new officials, and the like drastic remedies. He should remember that change is in itself an evil: that those who have daily to go through certain duties find out for themselves the best way to do them: that the law of custom is stronger than any command upon paper: and that it is easier to destroy than to build up. Further, that the higher the work, the more certain it is that the person best able to do it also knows better than anyone else how it can be best done, and the bolder is he who should attempt to teach this to the doer. Now, the medical staff of our great hospitals is formed of men who are admitted to be the leaders of their profession; at each vacancy the best man that can be found is appointed, and to them other medical men look for help in cases of difficulty. If such men do not understand how medical work can be best done, who does? To tell such officers in what way they are to do this and that, to hamper them with restrictions and with unnecessary routine, is to assume a function for which no committee is competent. The true policy is, to allow officers of such capacity and importance the utmost liberty, the amplest opportunity, and to refuse nothing that they think really necessary; conditioning their freedom only by the principle which we shall shortly insist on—that of the fulfilment of contracts. Over-legislation irritates, hinders work, and produces a feeling of disquiet, a want of confidence, which goes far to prevent the beneficial effect of change, to say nothing of the fact that such changes are usually unwise.

But, while over-legislation is bad, undue laxity of rule is equally mischievous. There is only one way in which a hospital can keep the confidence of the public, and that is, by doing its work in a manner which will stand the most searching criticism. The way to make a hospital successful, is not by the publication of accounts of tens of thousands of out-patients seen, or lists of operations performed, to say that no urgent case is ever turned away, to boast of the smallness of the cost per bed, to vaunt illustrious names on the staff. It is an imposition upon the public to lead them to think that a great man, whose name appears on the staff, may take charge of the patient they send, if in reality that gentleman does not attend regularly, and his patients are left in charge of a recently qualified student. Equally is it a sham to show large figures indicating out-patients seen, if they have really been disposed of at forty-five seconds per patient, or where visits are recorded as new patients.

Each officer of a hospital, in accepting his appointment, enters into a virtual contract with those who appoint him, to perform certain duties; and that contract ought to be kept. The superintendent should leave to each the utmost liberty (compatible with order) to do his work in his own way, but he should rigidly insist on its being done. No one should be allowed to hold an office the work of which he does not or cannot do. It may be, and often is, the highest wisdom not to part with valuable servants who are no longer able to do what they once could. But in such cases the contract should be revised and altered; for if anyone be allowed to systematically neglect to fulfil the duties he was appointed to do, the higher that person is, the worse the precedent. The attention of the public has recently been called, in an article written with the best intentions, but with imperfect knowledge, to what the writer of it considers the improper extent to which, in some hospitals, patients are left in the hands of students. We are not concerned here with the truth or otherwise of the instances he gives. We use his charges as an illustration of what we mean. If qualified officers have been appointed to take charge of patients, it is the business of the superintendent to see that they do it. He should firmly check any tendency on their part to delegate their duties to those below them in professional standing. If success in practice, and consequently increasing private engagements, prevent an officer from properly doing his hospital work, either that officer should make way for some one who can and will do the work, or else the distribution of duty among the staff should be so altered that no more may fall to him than he can properly do. But to let an eminent man be in the false position of being nominally responsible for work which he actually cannot and does not do, is a bad and mischievous thing. As we have said, the evil done is in proportion to the eminence of the man who is put in this false position, for the force of example spreads downwards.

There is another mistake against which a hospital superin-

tendent should be watchful. It is that of making his rule too much of a personal matter: of letting neglect of duty be condoned by an apology to himself: of making disregard of his own instructions a graver thing than infraction of written laws: of seeming to wish to magnify his personal position. He should merge self in the institution; putting the welfare of the patients and the sound working of the hospital before everything. If by neglect a patient has been injured, how can an apology to the superintendent undo that? And on the other hand, a rude speech injures no one but he who makes it. Of course a superintendent must assert himself; he must be firm, and make his authority respected. But he should not make brusque behaviour to himself a graver thing than a piece of carelessness from which a patient has suffered

It would be easy to specify in detail many mistakes which might be made; but that is not our object. We have pointed out general principles which we believe cover most of them, and which we think are at least worth consideration by hospital managers.

COLONIAL MEDICAL REGISTRATION.

A REACTION-WAVE against free trade and in favour of protective duties appears to have set in strongly in some countries of late. Even reciprocity is looked at askance in some quarters, and the change of opinions threatens to affect the practice of our profession, as well as trade. We have been trying to establish reciprocity of registration between the colonies and the mother-country, and to establish the recognition of foreign diplomas and degrees of known value in medicine as admissible to the Medical Register in this country; but in France and one of our colonies the movement has been in the opposite direction. As regards France, it will be remembered that the principle of M. Roger Marvaise's Bill, which, tersely stated, may be said to be that civilised governments should refuse any reciprocity of medical qualifications, was approved of last year by the Commission appointed to report upon it to the Chamber of Deputies; and the representations made by our Government against that principle have, so far as we know, failed to produce any great effect, though we believe no progress has been made with the Bill of late. Then as to our colonies: during the last session of the General Medical Council a letter was received from Mr. Baldwin, a registered practitioner of the United Kingdom, stating that having been refused registration in Ontario, he had tested the legality of the refusal in the law courts, and had obtained a rule *nisi* in the Court of Common Pleas. This rule was served on the counsel for the Council of the College of Physicians and Surgeons of Ontario, and they had advised the Council to register Mr. Baldwin without delay, as he was unquestionably entitled to registration without examination, in virtue of his English registration. He had therefore gained his point; but he informed the General Medical Council that the Ontario Council, feeling that it was a grievance that United Kingdom registered practitioners should have the right of practising in any English colony upon payment of the registration fees, if any, required in such colonies, were endeavouring to get an Ontario Medical Act Amendment Bill passed, to provide that, in cases where British physicians sought registration in Ontario, $400 should be charged instead of the customary fee of $10; and the Bill for that purpose had been read a first time in the Ontario Legislature. Such an enactment would be almost prohibitive, and not only might be followed by further restrictions, but might lead the other provinces of the Dominion of Canada, and our other colonies, to require British practitioners to pass an examination in all branches of medicine; or perhaps to impose absolutely prohibitive registration fees. The General Medical Council therefore requested the President to bring Mr. Baldwin's communication under notice of the Colonial Office, "as alleging an endeavour to introduce into the colony a system of differential registration fees, to the disadvantage of legally qualified practitioners from the mother-country." A correspondence on the subject has since passed between the Colonial Office, the Lord President of the Privy Council, the Governor-General of Canada, some of the medical authorities in Ontario, Mr. Jenkyns of the Office of the Parliamentary Counsel (England), and the President of the Medical Council, from which we may learn what the Canadian grievance is, and, further, that the Governor-General "pressingly commends it to the attention of her Majesty's Government." It appears that the Ontario College of Physicians and Surgeons were incorporated in 1869 as a Central Examining Board, with sole power of granting licences to practise in the province of Ontario, and admitting to registration, and with the power of enforcing upon the various medical institutions in the province a standard of medical education. They say that the British North America Act, passed by the Imperial Parliament in 1867, to provide for the "federal union" of the provinces of Canada, enacted that the legislatures of the several provinces should have exclusive control over all civil rights, and that the provincial legislatures were especially authorised to make laws in relation to education; that, acting upon the supposed authority of this Act, the legislature of Ontario provided that it should be optional with the Council of the College to admit to registration (and so to the privileges of the medical profession) such persons as are duly registered in the Medical Register of Great Britain, upon such terms as the Council may deem expedient; and that the Council had demanded from all registered British practitioners (subsequent to July, 1870), applying to be registered in the province, that they should pass the examinations prescribed by the Council; and that the provisions of the Imperial Medical Act, and an amendment thereto passed in 1868, compel the College to admit to registration, without passing any examination whatever, all registered British practitioners. This last enactment the College declare to be very harmful, because practitioners in possession of only a single qualification in medicine or in surgery can get on the British Register; and because "a number of diseases are necessarily treated differently in Canada and in the United Kingdom, on account of differences, climatic and physical; so that, in the interests of the public, it is necessary for medical students and professional men to receive a practical medical education in Canada, or undergo an examination as to fitness to deal with such distinctive diseases." The College, therefore, have petitioned the Governor-General to submit their case to her Majesty's Government, and to recommend that those portions of the Imperial Medical Act which affect Canada, and interfere with the rights of self-government and self-legislation conferred upon her by the Act of 1867 may be repealed; and this prayer is concurred in by a Committee of the Privy Council of Canada, whose report on the matter was approved by the Governor-General, and forwarded by him, with an urgent recommendation for its serious consideration, to the Colonial Office at the end of March last.

We need not take the trouble to point out the absurdity of the argument, in the petition of the Ontario College, founded on the alleged differences of treatment required by the same diseases in Canada and in Great Britain. It will but provoke a smile, and lead readers to think that a case which required to be bolstered by such an argument must be a very weak one. *The* important consideration is, What is the law of the case? And this part of the Ontario petition has, we believe, been very completely answered in a legal opinion from the office of the Parliamentary counsel. This opinion states, we understand, that the petition is based on an entire mis-

apprehension of the law. It points out that the Act of 1878 (21 and 22 Vict., cap. 90), which was in force when the Ontario College was established, and when the Canadian Federation Act was passed, gave to practitioners registered in the Medical Register of the United Kingdom a right to practise throughout the Queen's dominions; and that the Act of 1868, 31 and 32 Vict., cap. 29, relaxed the law in favour of the colonies by allowing a colonial legislature to require registered United Kingdom practitioners to be registered in the colonial register, but preserved the rights of those practitioners by allowing them to claim registration as of right. If, therefore, the Ontario Legislature requires registered United Kingdom practitioners to be registered in Ontario, the Ontario Registrar is bound to register them; but otherwise the Ontario Registrar is not obliged to register them, although unable to prevent their practising without being registered. The writer also observes that the Privy Council of Canada have omitted to notice that when the Medical Act of 1858 passed the Ontario College did not exist; and that, for anything that appears, there may not have been at that date any licensing body whatever in the British North American Provinces; and he goes on to point out that the Act of 1868 does not compel a colony to register United Kingdom practitioners, but authorises a colonial legislature to do what under the Act of 1858 it could not do—namely, require a registered United Kingdom practitioner to be registered in the colony,—though at the same time, in order to preserve the right conferred by the Act of 1858, it was provided that such colony should be bound to register such a practitioner without further examination.

In replying, in April, to the Governor-General, the Colonial Secretary transmitted a letter from the General Medical Council on the legislation contemplated in Canada, and other papers, and observed that he joined in the hope expressed by the Lord President of the Council, that neither the Dominion Government nor the Provincial Government of Ontario would adopt any measures to impair the rights of medical men registered in this country to practise throughout the Queen's dominions; and he points out that there would naturally be much objection in this country to the imposition of unreasonable and prohibitive fees such as appear to be proposed, as it was never contemplated that the concession made by the Imperial Act of 1868 in favour of colonial authorities should be made the means of depriving practitioners registered in this country of the privileges they possess under the Act of 1858.

There the matter rests at present, we believe, though perhaps more information as to it may be communicated to the General Medical Council when they meet again in July. It seems very improbable that the Imperial Medical Act Amendment Bill now before Parliament will come again before the House of Commons this session; but should it do so, the attempt being made, in Canada, to interfere with the rights of registered United Kingdom practitioners there, will certainly not dispose the House to pass the provisions of the Bill in favour of colonial practitioners.

THE WEEK.

TOPICS OF THE DAY.

The trade which has been recently developed for the importation of fresh meat from America is not without its drawbacks, and it certainly is not satisfactory to learn that during the first week of the present month no less than fifty-one tons have been condemned and destroyed at the Central Meat Market as totally unfit for human food. At the last meeting of the City Commission of Sewers, Dr. Sedgwick Saunders, the Medical Officer of Health for the City, called attention to the circumstance, and commented upon the action of the Glasgow authorities, where the first cargo was landed, in sending suspicious meat to London, thus throwing on the London inspectors the responsibility of determining whether it was fit for human consumption, when it might without question have been condemned as soon as landed. The second instalment, landed at the London Docks, should also have been destroyed upon the spot. In this case the meat had become putrid through some failure in the freezing apparatus on board, and the total loss was said to represent a sum of nearly £10,000 sterling. Such portion of the two cargoes as escaped condemnation was in such poor condition that it sold at prices ranging from 2½d. to 3½d. per pound, and it seems almost doubtful whether meat of such a description should have been allowed to be offered for sale. This wholesale seizure is the more noticeable since, as a rule, only 1 per cent. of the meat annually consigned to the meat market in London is condemned as unfit for food.

An application made on the part of the Rev. Capel Cure, rector, and the churchwardens of the Vestry of St. George, Hanover-square, for a faculty or licence to build a mortuary-house with rooms attached, has been opposed by Lord George Paget and other parishioners. On the part of the Vestry it was stated that the building was required as a sanitary improvement, and that other parishes had obtained permission to build such places, with rooms for post-mortem examinations. By the Act 29 and 30 Vict., cap. 90, persons dying of infectious diseases could, for the public safety, be removed from houses; and there could be no doubt that public mortuaries were of great benefit in populated districts. It was proposed to build on a closed burial-ground, and there could be no possible objection to the place, as the workhouse and board-room were adjoining the burial-ground in Mount-street, Grosvenor-square. Several witnesses were called in support of the prayer of the petition, and Dr. Tidy gave evidence on the same side. Eventually, Dr. Tristram, the Chancellor of London, adjourned the hearing of the case.

The Thames Valley Drainage Scheme, after lying dormant for some time, has again been revived. The Works and Parliamentary Committee, to whom the Joint Board had referred the question, have determined to proceed with Colonel Haywood's scheme for carrying the sewage to East Molesey, and they now ask to be empowered to take the necessary steps to procure a provisional order. The City solicitor, Mr. Nelson, has been re-elected chairman of the Hampton Wick Local Board, and, at a recent meeting, he explained that although the Joint Board had failed in their endeavours to relieve the neighbourhood from a very awkward and dangerous state of affairs, they had the consolation of knowing that they had conscientiously discharged their duty to the best of their ability.

The forty-seventh annual congress of the British Medical Association will be opened on August 5 next at Cork. Dr. Falconer, of Bath, the present President, will resign office, and he will be succeeded by Professor Denis C. O'Connor, of Queen's College, Cork. The annual Address in Medicine will be delivered by Dr. Alfred Hudson, Regius Professor of Physic in the University of Dublin; the Address in Surgery by Mr. W. S. Savory, M.B., F.R.C.S., F.R.S.; and the Public Medicine Address by Dr. Andrew Fergus, President of the Faculty of Physicians and Surgeons of Glasgow. There will be general meetings for the discussion of matters relating to the government of the Association, and of State medicine questions dealing with matters of public interest; but the technical and professional questions will be dealt with in six sections: that of Medicine under the presidency of Dr. Andrew Clark, F.R.C.P., with Dr. J. Little and Dr. W. Townsend as vice-presidents; that of Surgery under Professor W. K. Tanner, with Mr. W. Mac Cormac

and Mr. J. Cooper Forster as vice-presidents; that of Obstetric Medicine under Dr. G. H. Kidd, with Dr. W. J. Cummins and Dr. A. Wiltshire as vice-presidents; that of Public Medicine under Dr. T. W. Grimshaw, with Dr. H. J. Littlejohn and Dr. C. Meymott Tidy as vice-presidents; that of Psychology under Dr. J. A. Eames, with Dr. Henry Rayner and Dr. Herbert C. Major as vice-presidents; and that of Physiology under Mr. Henry Power, with Professor J. J. Charles and Dr. R. J. Harvey as vice-presidents.

In accordance with the suggestion of the Works and General Purposes Committee of the Metropolitan Board of Works, that application should be made to Parliament for powers to pay the expenses incurred in promoting the two Bills last year for purchasing the rights of the London water companies, and amending the present system of water-supply, which expenses were disallowed on audit, Sir James M'Garel Hogg has introduced a Bill authorising the Board to defray "the expenses incurred by their order in the preparation and promotion of these Bills, and preliminary and incidental thereto." Notice of opposition to this Bill has also been given. If the vexed question of an amended water-supply for the metropolis is not at last satisfactorily settled, it will not be for the want of agitation on the subject: it is now announced that Cardinal Manning has inaugurated a movement among the temperance societies of London, with the object of memorialising the Government, on behalf of the working-class population, to induce the authorities to adopt some legislative measure to remedy the evils and dangers complained of under the present system of supply; and a large committee of representatives of the temperance societies has been formed under the presidency of his Eminence to carry out the movement.

In reporting to the Local Government Board on the sanitary condition of Penistone, where there have been recently serious outbreaks of scarlet and enteric fever, Dr. Thorne, the Board's inspector, describes the sanitary state of the town as lamentable. The water-supply is generally contaminated with sewage, the drainage is bad, and there is no efficient scavenging. Dr. Thorne recommends that steps should be taken by the local authority forthwith to remedy this state of affairs by providing an efficient water-supply, a system of sewerage, and generally a more effective sanitary administration of the district.

The Select Committee of the House of Commons appointed to consider the merits of the electric light and its application to general purposes as a luminary, concluded their labours last week. They report that the system has been sufficiently developed to allow it to be used, even economically, for public lighting, but not enough for the purpose of domestic consumption in houses. On the question of the right of municipalities to break up streets to enable wires to be laid down, the Committee recommend that there should be some legislation to make that right clear, as it has been impugned by a recent decision of the Court of Queen's Bench. They also express a hope that attention may again be called to the subject of electric lighting as it becomes from time to time improved.

At a recent sitting of the Court of Appeal, Lord Justice Bramwell referred to the case of Hill *v.* the Metropolitan District Asylum Authority, better known as the Hampstead Small-pox Hospital case. The hearing of the appeal had been fixed for Monday last, the 16th inst., when the appeal against the judgment was to have been heard together with the argument on the rule to show cause against a new trial order. His lordship expressed his opinion that there was no reason why the appeal should be brought on out of its proper order. The new trial rule will be argued at the same time as the appeal, and the case, therefore, will probably not be reached till after the long vacation. What with appeals, new trials, and the proverbial delays of the law, it seems somewhat doubtful whether the venerable plaintiff in this action will survive to see the final result of the litigation which he originally undertook.

The anniversary festival of the City Orthopædic Hospital, Hatton-garden, was held last week at the Freemasons' Tavern, Great Queen-street. The Earl of Aberdeen presided, and in the after-dinner speeches the claims of the charity on the public sympathy were strongly pressed. The report showed that the institution was founded in 1851, since which time it has treated gratuitously 32,659 cases of persons suffering from club-foot, contractions, or distortions of the limbs, curvature of the spine, and other bodily deformities. The number treated during the year 1878 was 1880, and the majority of these cases were those of children. The annual expenditure of the charity, which is entirely dependent on voluntary subscriptions and donations, has exceeded its receipts by an average of nearly £300 per annum during the last four years, though the utmost economy has been exercised to keep the expenses down to the lowest limit possible consistent with efficiency.

At a recent meeting of the Leicester Board of Guardians, an address to the Local Government Board was passed, stating that the Board was of opinion that it is unjust to enforce vaccination under penalties, and asking that steps may be taken to release them from the charge of intolerance in arraigning before the magistrates people, and especially the poor, who on conscientious grounds object to vaccination.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At the ordinary meeting of the Council of the Royal College of Surgeons held on the 12th inst., several important matters had to be considered, in addition to the transaction of much business of a routine character. The report, dated June 4, of the Erasmus Wilson Trust Committee was received, adopted, and ordered to be entered on the minutes of the meeting, and the Council authorised the issue of the memorandum, which will be found elsewhere in our columns, for the information of candidates. It will be seen, on reference to the memorandum, that it is founded upon, and carries out, the recommendations contained in the report of the President and Vice-Presidents of the College on the Erasmus Wilson Endowment, which we published in December last year (*Medical Times and Gazette*, vol. ii., page 718, 1878). The Council authorised the Committee to vary the concluding section of the memorandum in such manner as circumstances may from time to time require.

The petition from one hundred of the Fellows of the College, requesting the Council to alter the by-laws so as to enable the Fellows to vote by voting-papers or by proxy at the election of members of the Council, was read; and, as we anticipated in speaking of this petition, weeks ago, the Council decided that no alteration of the by-laws could alter the present mode of election, that being settled by the charter.

The report of the Committee appointed to consider the propriety of separate Examiners in Anatomy and Physiology at the primary examinations for the membership and fellowship was received. The report, which approved of such separation, was discussed at considerable length, and two divisions were taken on the subject. First, Dr. Humphry moved, and Mr. Erichsen seconded—"That anatomy and physiology be separated as subjects for examination, and that the next nomination of examiners be made on this principle; it being, however, understood that the examinations in anatomy may include questions on the mechanical use of any part referred to." Mr. Erasmus Wilson, seconded by Mr.

Curling, then moved as an amendment—"That all the words after the word 'principle' be omitted, as being redundant." The Council divided on the amendment, and, on the demand of Mr. Curling and Mr. Gay, the names of the members voting for and against it were ordered to be taken down and entered on the minutes. For the amendment were Sir James Paget and Messrs. Busk, Curling, Erichsen, Wilson, Wells, Haynes Walton, Marshall, Cooper Forster, Wheelhouse, Savory, and Lund; against it, Messrs. Le Gros Clark, Prescott Hewett, Holden, Critchett, Holmes, and Gay—twelve for, and six against. The original motion, omitting all the words after the word "principle," was then put, and, again on the demand of Messrs. Curling and Gay, the names of those voting for and against were directed to be entered on the minutes. For it were the President, Mr. Simon, Sir James Paget, Messrs. Busk, Curling, Erichsen, Humphry, Erasmus Wilson, Wells, Marshall, Haynes Walton, Cooper Forster, Wheelhouse, Savory, and Lund; against, Messrs. Le Gros Clark, Prescott Hewett, Birkett, Holden, Critchett, Holmes, and Gay. The motion was carried by fourteen votes to seven.

The meeting of the Council was then adjourned till the 19th inst. (yesterday), for the consideration of the remainder of the report from the Committee on Examinations, and the rest of the business.

ANNUAL REPORT OF THE METROPOLITAN BOARD OF WORKS.

THE usual annual report of the proceedings of the Metropolitan Board of Works for the year 1878 was presented from the Finance Committee at the last week's meetings. As may be imagined, when the different duties performed by the Board are taken into consideration, the report is a lengthy one, and it will be sufficient here to enumerate the items touched upon. Sewerage and drainage, which the Board was mainly established to carry out, are the first subjects reported upon, and a summary of the works undertaken and in progress during the year is given. Next, that most disputed point, the state of the Thames, is considered, and if we are to accept the results of the investigations made by the Board's engineers, as here given, we must perforce believe that the river is now less free from impurity than it was before the carrying out of the main drainage scheme, and that its present muddy condition is entirely due to the unprotected state of its banks, which are being gradually washed away through the neglect of proper action on the part of the Thames Conservators. The report goes on to explain the action taken by the Board to prevent the periodical overflows of the Thames, and announces that a private Bill will be introduced to enable it to deal with the matter without delay. The metropolitan improvements and the doings in connexion with the Artisans' and Labourers' Dwellings Act undertaken during the year are next enumerated, and then follows a history of the improvements effected in the organisation of the fire brigade, and a detail of the services rendered by it in 1878. A considerable space of the report is devoted to a consideration of the present state of the gas and water supply of the metropolis, and the steps that have been taken by the Board for their improvement. The only other item necessary to be mentioned is the statement of the steps taken by the Board under the Infant Life Protection Act; in twenty cases persons had been found infringing the provisions of this Act by keeping two or more infants under the age of one year in unregistered houses, but in thirteen of these the offence was shown to have arisen through ignorance or misunderstanding, and the matter was remedied without having recourse to a police-court. The motion that the report should be approved was duly seconded, and carried unanimously.

HOSPITAL SUNDAY IN THE METROPOLIS.

SUNDAY last, the 15th inst., having been appointed for the annual collection of the funds in aid of the metropolitan hospitals, sermons advocating the movement were delivered in many of the churches and chapels in and around London. The weather was unfortunately wet, which, no doubt, had some effect in lessening the numbers gathered together in the various edifices, and, so far as has been at present ascertained, the different sums paid in to the Society are rather below the average. Amongst the amounts already received are the following:—St. Michael's, Chester-square, £572 10s. 9d.; Westminster Abbey, £250; St. Paul's Cathedral, £114 15s. 6d.; St. Mark's, North Audley-street, £162 13s. 4d.; Kensington Parish Church, £238 13s. 2d.; Christ Church, Victoria-road, £198 7s. 1d.; the Temple Church, £188 2s. 5d.; Brompton Parish Church, £114; St. Stephen's, South Dulwich, £170; the Metropolitan Tabernacle (Mr. Spurgeon's), £186; Holy Trinity, Kilburn, £51 10s.; D. C. (a donation), £100; New Malden Parish Church, £53 1s. 6d.; Lewisham Congregational Church, £66; St. John's, Wilton-road, £83 19s. 8d.; Christ Church, Lee, £52 2s. 10d.; the Lock Hospital Chapel, £55 4s. 8d.; St. Peter's, Vere-street, £63 4s.; Park Chapel, Camden Town, £51 15s. 8d.; Christ Church, Highbury, £79 0s. 8d.; St. Paul's, Avenue-road, £62 2s. 7d.; Allhallows, City, £47 0s. 1d.; St. Paul's, Clapham, £41 4s. 7d.; St. Paul's, Vicarage-gardens, £46 1s. 1d.; St. Mary's, Stoke-Newington, £43 2s. 7d.; Trinity Presbyterian Church, Notting-hill, £41 18s.; St. Andrew's, Holborn, £45 12s. 9d.; Brunswick Chapel, £44 7s. 3d.; St. John the Evangelist, Wilton-road, S.W., £83 19s. 8d.; St. Jude's, South Kensington, £260 5s. 4d.; St. Peter's, Cranley-gardens, £239 9s. 4d.; Berkeley Chapel, Mayfair, £100; All Saints, Knightsbridge, £162 11s. 10d.; the Greek Church of St. Sophia, Bayswater, £105 12s.; St. Stephen's, South Kensington, £114 11s. 8d.; Marylebone Presbyterian Church, £110 15s. 2d.; St. Matthew's, Denmark-hill, £56 17s. 4d.; All Saints, Blackheath, £50; St. Margaret's, Lee, £75 12s.; St. Saviour's, Paddington, £53 0s. 4d.; Bloomsbury Chapel, £57 11s. 8d.; St. Nicholas, Chislehurst, £63 2s. 9d.; St. James's, Holloway, £78 13s. 5d.; St. Margaret's, Westminster, £77 17s. 2d.; St. Ann's, Soho, £93 11s. 6d.; Christ Church, Crouch-end, £40 15s. 3d.; St. James's, Garlickhithe, City, £50 8s. 6d.; Union Chapel, Islington, £97 17s. 8d.; St. Peter's, Brockley, £57 1s. 5d.; St. Matthew's, Upper Clapton, £56 19s. 1d.; Congregational Church, Grafton-square, Clapham, £85 1s. 3d. The box outside the Mansion House realised on Monday and Tuesday last £33 9s. 1d.; and the total amount received at the end of the first two days may be returned as just over £6000.

THE SELECT COMMITTEE ON THE MEDICAL ACT AMENDMENT BILL.

THE first meeting of this Committee, for the hearing of evidence, took place on Monday last, under the presidency of the Right Hon. W. E. Forster. The only witness examined that day was Dr. Acland, President of the General Medical Council. The first portion of his evidence referred to the present constitution of the Medical Council. He was of opinion that medical examinations might possibly have been more frequent at the universities but for the recent unsettled condition of medical politics in regard to the Conjoint Scheme and medical legislation generally. Some of the universities, as Oxford, gave only medical qualifications, while others gave surgical diplomas as well as medical. Mr. Forster asked the important question whether there was much difference in the character of the various examinations of the different licensing bodies, to which Dr. Acland gave a rather vague reply, in which he refrained from specifying any bodies whose

examinations are commonly regarded as of an inferior order. The next part of his evidence referred to the proposals for conjoint examinations. He mentioned that the Medical Council had given its sanction to the conjunction, for the purposes of examination, of the Royal College of Physicians of Edinburgh with the Royal College of Surgeons of Edinburgh, and with the Faculty of Physicians and Surgeons of Glasgow, and that such conjoint examinations had been conducted for nearly twenty years. A similar conjunction for examination purposes of the University of Dublin, the King and Queen's College of Physicians, and the Royal College of Surgeons in Ireland, had been sanctioned, but had never been carried out. Though a scheme for the general adoption of conjoint boards had been all but agreed upon, there were many difficulties which had not been got over. The scheme would require a very large number of examiners, and would involve the arrangement of numerous details, on any one of which the licensing bodies might raise objections. He was himself in favour of a Conjoint Scheme, but certain of the examining bodies did not approve of the proposal. With regard to the work of the Medical Council, it had been maintained by some, especially by those who wished to see certain of its members elected by the registered practitioners, that it ought to undertake much larger duties than had yet been assigned to it by the Act of Parliament. He thought the Council did its work satisfactorily, though it would be difficult to say of any administrative body that it would be impossible to improve it. They could not, certainly, find better men in the profession than the present members of the Council. Dr. Acland's examination was not finished when the Committee adjourned. The next meeting takes place to-day (Friday), when Mr. Simon is expected to give evidence after Dr. Acland.

THE PARKES MUSEUM OF HYGIENE.

THE Home Secretary will be influentially supported on June 28, when opening the Parkes Museum. Among others who will be present we may mention Earl Fortescue, Viscount Cranbrooke, Sir Thomas Watson, Professor Huxley, and the Mayors of Cambridge, Southampton, Salford, and Welshpool. The Museum comprises an area of 3500 square feet, independent of the library. This space will be quite filled by the day of opening, and the progress made justifies the assumption that the Committee will succeed in making the Museum a national institution of no mean importance. Communications may be addressed to the Curator, Mr. Mark H. Judge, University College, London, W.C.

AN IRISH ESTIMATE OF ARMY MEDICAL OFFICERS.

THE vote, in Supply, for the Army Medical Service was under discussion in the House on Monday night for nearly three hours, owing to the almost interminable criticisms by some of the Irish members; and the tone and spirit of some of their observations led to one of those angry scenes that are becoming painfully frequent in the House of Commons. Mr. Parnell, Mr. O'Shaughnessy, and some other members, inquired about the treatment of wounded Zulus in our hospitals, and hearing from Colonel Stanley that he could not recollect having seen in official documents any mention of a wounded Zulu in hospital, those gentlemen permitted themselves to make inferentially very serious allegations of inhumanity against our medical officers and troops. Their charges were altogether unauthenticated, but that made no difference to the gentlemen who thought it fair and decent to bring them forward; and Mr. Parnell hoped that the Secretary for War would take such steps in his communications with the authorities that there should be no possibility of any recurrence of the kind. Colonel Stanley gave a well-deserved severe rebuke to members who could give the least countenance to entirely unauthenticated accusations against the medical officers of the army; who could make assertions and decline to give proof of them, and then could ask him to send out instructions conveying a slur upon a great department. He refused altogether to be the means of either directly or indirectly throwing broadcast on a noble body of men the unfounded—he had almost said foul—aspersion referred to. In the end, Mr. O'Shaughnessy had the grace to apologise. He had been excited and betrayed into the use of language which he regretted. He really had not meant to impute inhumanity to the medical officers or the troops, and he begged pardon for having spoken as if he had intended to make such imputation.

THE EPHRAIM M'DOWELL MONUMENT.

THE *Louisville Medical News* of May 24 contains an account of the dedication of the monument to Dr. Ephraim M'Dowell, the first ovariotomist, which took place May 14 at Danville, Kentucky. The ceremony was a public one, at which the public authorities and a very numerous auditory attended; and the orations delivered certainly did not fall short in enthusiastic appreciation. In consequence of the death of Dr. Atlee, who had been chosen to deliver the dedicatory address, Prof. Gross delivered the oration, which is to be published separately, with his usual success. Dr. Lewis Sayre, as the President-elect of the American Medical Association, followed him, and among other strong expressions observed, "I venture here the prediction that in all time intelligent surgeons, either in person or in thought, from every part of the civilised globe will wander here to Danville to pay their respects and sense of obligation to the memory of Ephraim M'Dowell, who has contributed more to the alleviation of human suffering and the prolongation of human life than any other member of the medical profession in the nineteenth century." As a supplement to the ceremony, Dr. M'Dowell's *door-knocker* was presented to Prof. Gross, in commemoration of the address he had delivered, and in order that he might not go back empty-handed to Philadelphia; an eloquent address by Dr. Cowling accompanying the donation. Prof. Gross was fully equal to the occasion, declaring that "I take this emblem now offered me as the most valued gift of my life. It shall be received into my home as a household god, environed by all the memories of goodness and greatness to which your speaker has referred, and above all recalling this scene. Dying, I shall bequeath it, among my most important possessions, to the family that I may leave, or, in failing this, to be preserved in the archives of some society." Enthusiasm like this, with all its exaggerations, is not unpleasant to witness; but when Dr. Sayre remarks in his speech that "Dr. Thomas has declared that 40,000 years have already been added to the sum of human life by this one discovery of Ephraim M'Dowell," he provokes the observation that the recent skill and success with which the operation has been performed have rescued M'Dowell's name from the oblivion that threatened to surround it.

MURCHISON MEMORIALS.

A MEETING was held in the Materia Medica Class Room of the University of Edinburgh, on Friday, June 13, with the object of aiding the proposed memorial to Dr. Murchison. The chair was occupied by Sir Robert Christison, Bart. There were present Professors Douglas Maclagan, Turner, Sanders, Grainger Stewart, Rutherford, Fraser, ex-Professor Balfour, Drs. Dyce Duckworth, T. A. G. Balfour, etc. After some introductory remarks from the chairman, it was resolved, on the motion of Professor Maclagan, seconded by Professor Grainger Stewart—"That this meeting fully approves of the scheme that a memorial of the late Dr.

Murchison take the form of a scholarship in clinical medicine, to be awarded alternately by the Universities of Edinburgh and London, and pledges itself to co-operate heartily to promote its success." Professor Sanders supported the resolution, and paid a high tribute to Dr. Murchison's professional abilities and private character. On the motion of Professor Turner, a committee, consisting of Sir Robert Christison (convener), Dr. Peddie (President of the Royal College of Physicians), and Professors Sanders and Grainger Stewart, was appointed to promote the memorial in Scotland, and to act in conjunction with the London Committee. Dr. Dyce Duckworth explained the origin of the movement, and stated the steps which had been already taken in the matter.

The fund which is being collected at St. Thomas's Hospital for the purpose of raising a memorial to the late Dr. Murchison already amounts to £175. So large a sum having been raised, a wish has been expressed that a memorial should be instituted which shall have some practical utility. Amongst other schemes, that of founding a pathological laboratory has been suggested; but in order efficiently to carry out any such plan, a considerably larger sum will have to be collected than was at first contemplated.

HOW NOT TO DO IT.

If progress is the thing most desired as regards the Medical Bill now before the Commons, it would seem that the members of that House are determined to do their best to prevent it. A Select Committee, after long delay, has been appointed to consider the whole question of medical reform: they have begun their labours in a most serious fashion. But apparently there must be something wrong in the constitution of this Committee, though so carefully balanced, Liberal *versus* Conservative—for Mr. Callan moved, the other night, the appointment of two more members, viz., Mr. O'Leary and Mr. Maitland. We were, in point of fact, surprised that Mr. O'Leary (one of the few members of the House who take an active interest in medical affairs) was not originally nominated. He has occupied a good position in the Dublin medical world, and his opinion must be worth having. Of Mr. Maitland we know nothing. There are two of the name in the House, one sitting for a Scotch, another for a Welsh constituency: which is meant we do not know. But it is plain that if things go on at this rate, and if the answers are all of the type afforded by those of the President of the Medical Council, we may hope that the Committee will terminate its labours and send in its report shortly before, and the Bill be passed soon after, "the Greek Kalends."

THE MIDDLESEX COUNTY LUNATIC ASYLUM.

The Middlesex County Lunatic Asylum, at Colney Hatch, has not received during the past year so large an addition to its inmates as is shown by the returns of most other asylums, the average number of patients for the year having been 2078. The annual report for the year 1878, which is the twenty-eighth published, shows that the cost per head per week has been 9s. 7¼d., a sum which it is hoped will not be increased during the current year. The male department of the Asylum is under the medical superintendence of Dr. Edgar Sheppard, the female department being supervised by Mr. W. G. Marshall. The former gentleman, in his annual report, again calls attention "to the gigantic part which is played by alcoholic intemperance in the causation of insanity." Alcoholic excess, he says, is largely on the increase, and quite a moiety of the cases received may be directly or indirectly traced to this vice. Mr. Marshall remarks that although the bodily health of many of the female patients admitted was much impaired from maniacal excitement, epilepsy, and paralysis, the general condition of them as to cleanliness and bruises was of a more satisfactory character. He regrets, however, that several of the new patients were very far advanced in years, and appeared to be more fitted for workhouse infirmary wards than for a lunatic asylum; and the Committee of Visitors, in alluding to the same subject, call the special attention of their brother justices to the necessity of instituting inquiries whether patients of this class may not, with advantage to themselves, be retained in their respective workhouses before certifying for their removal to Colney Hatch.

SURGEON-MAJOR J. H. REYNOLDS, M.B., V.C.

The *London Gazette* of the 17th notifies that the Queen has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross on Surgeon-Major James Henry Reynolds, Army Medical Department, "for the conspicuous bravery, during the attack at Rorke's Drift on January 22 and 23, 1879, which he exhibited in his constant attention to the wounded under fire, and in his voluntarily conveying ammunition from the store to the defenders of the hospital, whereby he exposed himself to a cross-fire from the enemy both in going and returning." It is very satisfactory to be able at last to record that Surgeon-Major Reynolds has received this well-earned decoration, but it would have been in every respect better had the red-tapeisms of the distinctions between combatants and non-combatants not interfered so as to prevent his being gazetted to it along with the Rorke's Drift combatant Victoria Cross men two months ago. We formerly announced that the Honorary Fellowship of the King and Queen's College of Physicians in Ireland had been conferred on Surgeon-Major Reynolds.

THE DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.

The annual report of the Devonshire Hospital and Buxton Bath Charity for the year 1878 shows that notwithstanding the larger elements of expenditure, and certain adverse circumstances, such as the widely spread depression of trade, and the effect of the Paris Exhibition in taking people abroad who might otherwise have visited the locality, the financial position of the Hospital has been maintained. The receipts from annual and casual subscriptions have been somewhat in excess of those of the previous year, and the same has to be recorded of donations received at the Hospital; but there has been some decrease, as might have been expected, in the receipts obtained through the visitors to the hotels and lodging-houses of Buxton. The average number of patients daily resident in the Hospital throughout the year has been 104, and the average number of days in the Hospital per patient has been twenty-four. During the twenty years since the Hospital was opened there have been 26,106 patients under treatment, of which number 22,690 have been treated beneficially; and 2971, or about one-eighth of the whole, were not suffering from any of the forms of rheumatism, but were such cases as are ordinarily met with in hospitals. Altogether, 23,135 cases of rheumatism, embracing every conceivable variety of that obstinate disease, were extensively relieved by the remedial agency of the Buxton mineral waters.

THE NEW NORFOLK AND NORWICH HOSPITAL.

On Wednesday, the 17th inst., the Prince of Wales travelled to Norwich for the purpose of laying the foundation-stone of the new Norfolk and Norwich Hospital. He was received at the existing Hospital by the Earl of Leicester, the Bishop of Norwich, and the members of the building committee; and the Consulting and Senior Physicians and Surgeons were presented to him. With the proper and customary ceremonies the foundation-stone of the new buildings was then laid. In reply to the address presented

to the Prince on this occasion, his Royal Highness said:—"I beg to assure you, governors and promoters of this Hospital, of the great pleasure it has given me to be here to-day and to lay this foundation-stone. I sincerely wish this institution every possible success, and trust it may in every view do all that it can to alleviate the sufferings of those in this county who may require its assistance. In conclusion let me say that it has not only given me pleasure to be here to-day in the ancient city of Norwich, but I appear here also as a landed proprietor of the county of Norfolk, and I feel great pride in being one of the county." Before leaving, the Prince, attended by the Mayor and Sheriff, and conducted by Dr. Eade and Mr. Crosse, visited two small wards of the old Hospital, which were crowded with serious surgical cases. He also glanced at the pathological museum, and some other of the buildings of the present Hospital.

THE GENERAL MEDICAL COUNCIL.

We understand that the General Medical Council have been summoned to meet on Thursday, July 17, at 2 p.m. The term of office of the present President will expire on Friday, the 18th, and the election to the vacated chair must of course take place on that day. The Executive Committee will meet on Wednesday, the 16th, at noon, to prepare business for the Council.

MEDICAL PARLIAMENTARY AFFAIRS.

Sanitation in the Metropolis.—In the House of Commons, on Friday, June 13, on going into Supply, Mr. Baillie Cochrane called attention to the great increase in the local taxation of the metropolis, and commented upon the shortcomings of the vestries in respect of the sanitary administration of the metropolis. He moved for a Select Committee to inquire into the powers of the vestries and their management of the funds at their disposal. He alluded to the confused and conflicting jurisdictions under which the local affairs of the metropolis are administered, and directed particular attention to the waste of money in paving, watering, and scavenging the streets, to the defective gas and water supply, and to the insufficiency of the market accommodation. As a first step towards improvement, he suggested the appointment of Government officials to audit the accounts of the vestries. Mr. Hankey agreed that the management of the metropolis was objectionable, and advocated the establishment of a great central authority by the extension of the London Corporation. The control of the fire brigade, he thought, ought to be vested in the hands of the police. Mr. Sclater-Booth replied that this could not be done without an Act of Parliament. The vestries, he pointed out, acted under the Metropolis Management Act, which was a great improvement on the preceding state of things; and although the present state of things was susceptible of many practicable improvements, he was averse from the establishment of a great municipality which would be independent of Parliament and the Government. Sir A. Lusk defended the vestries, and insisted that London was better lighted and was remarkable for a lower death-rate than any other great town. Dr. Playfair suggested that the Government should take up the subject next year. Mr. Cross, while disclaiming the pledge to deal with the question which had been imputed to him, admitted its importance and that the vestries did not perform all their duties efficiently. The motion was then negatived without a division.

At a recent meeting of the Committee of the Leamington Provident Dispensary, Dr. James Thompson was elected Medical Officer in Ordinary for a term of five years, to fill the vacancy caused by the determination of J. Fenn Clark, Esq., and Dr. Thursfield not to seek re-election to their respective offices on the medical staff of the institution. The Committee further determined to elect Mr. Clark and Dr. Thursfield honorary consulting medical officers, in recognition of their services, which had extended over two terms of office, viz., ten years, thus securing for the future the permanent connexion of these gentlemen with the Dispensary, in the formation of which they had both so much interested themselves.

THE ERASMUS WILSON TRUST.

The following is the memorandum approved and adopted by the Council of the Royal College of Surgeons of England for publication:—

1. The special object of the Erasmus Wilson Trust is to promote the making of original researches in pathology by Members of the Royal College of Surgeons of England, and the publication of the results of such researches by lectures to be delivered in the College.

2. The annual income of the Trust is about £150; which income, or so much of it as shall become due under the conditions and regulations of the Trust, will be paid, year by year, by the Council of the College, in recognition of research and publication as aforesaid.

3. The Erasmus Wilson Trust Committee of the College receives and examines for the Council the applications of persons who desire to lecture under the Trust; and annually, towards the close of the calendar year, the Council receives from this Committee a report on such applications, and decides what lecture or lectures it will accept under the Trust for the respective ensuing year.

4. Any member of the College who shall have made any sufficiently important original investigation in pathology, and who, not having yet published the results of such investigation, shall be ready to make his first publication of them by means of a lecture or lectures at the College, will, unless he be a member of the Council of the College, be eligible as a candidate under the Trust.

5. Every person who desires to offer himself as a candidate under the Trust must do so by written application, describing the research which he has made, on the results of which he offers to lecture under the Trust, and the new knowledge which he believes himself able to establish in extension or correction of previous teaching in the same matter; and he must be prepared to support his application by personally furnishing to the Trust Committee such explanations or demonstrations as may be required.

6. Appointment by the Council to lecture under the Trust may in any year be of one person alone, or of two or of three persons, according as the Council, in view of the different candidatures for the year, may see fit; but the lectures to be given in any one year, whether by one person or by more, will not exceed three in number.

7. No appointment by the Council can extend beyond the lectures of a single year; but the fact of having lectured under the Trust will not disqualify for further appointment; and the Council reserves discretion to itself to repeat for any number of successive years (if in view of the successive new candidatures it shall so see fit) the appointment of the same person or persons.

8. If, at any period for appointment, the Council finds no applications which it deems acceptable, it will, for that turn, refrain from making any appointment under the Trust.

9. Each person appointed to lecture under the Trust will receive, in respect of the lecture or lectures which he delivers, an honorarium of five guineas per lecture, as customarily paid for other College lectures; and he will further receive, in respect of the research lectured on, such payment as the Council, having regard to the value of the research, and to the expense incurred for it, shall, after delivery of the lecture or lectures, see fit to award.

10. Applications with a view to lectures to be given in the coming year 1880 will be received by the Secretary of the College at any time in the month of October, 1879; but none can be received after the end of that month. In the meantime the Secretary will give to intending candidates any further explanations which they may need.

June 4, 1879. James Paget, Chairman.

The Use of Mr. Davy's Lever.—Mr. G. Cowell amputated at the right hip-joint, on the 17th inst., at the Westminster Hospital. The bleeding was controlled by Mr. Davy's lever, and the amount of blood lost was under one ounce. Seven amputations have now been performed by this method, and the total amount of blood lost in the seven cases is under fourteen ounces.

FROM ABROAD.

M. Fournier on Syphilitic Inoculation.

In a lecture upon this subject, delivered at the St. Louis (*Gaz. des Hop.*, April 8), M. Fournier delivered some observations, of which the following is an abstract:—

When a successful inoculation is made, a simple chancre, a special and pathognomonic lesion, is produced, which is easily recognisable at the end of twenty-four or forty-eight hours. It consists of a pustule which, when it has burst, leaves a hollow ulcer with abrupt and incised edges and a yellowish fundus, and is surrounded by an extensive aureola, which in a few days may attain considerable dimensions. In relation to diagnosis of syphilis, what is the assistance we derive from inoculation? It renders service to the surgeon by producing the two following results—(1) It enables him to differentiate a simple chancre from a venereal infecting chancre; and (2) to differentiate ulcerated syphilides from simple chancre.

1. *Inoculation serves to distinguish Simple Non-infecting Chancre from Syphilitic Chancre.*—This law reposes on these two considerations—(1) Syphilitic chancre cannot be inoculated on the subject of it; (2) simple chancre can always be inoculated on the subject of it—it is anti-inoculable. Simple chancre is a "strong pus," as it was formerly called, and takes invariably and indefinitely. Liebmann inoculated himself 2700 times with simple chancre, the last chancres being as positive as the first. In a great number of cases we are unable to diagnosticate the quality of a chancre. But the diagnosis of chancre is one concerning which patients are in great haste to be assured. Dismayed, they rush in indescribable anxiety to the surgeon, and desire to be informed at once, yes or no, whether they are the subjects of pox. Whenever, therefore, the objective signs do not suffice to inform the practitioner, inoculation will prove useful in giving precision to his diagnosis.

2. *Inoculation serves to distinguish Simple Chancre from certain Ulcerated Syphilides.*—Some ulcerated syphilides are located on the genital organs, and nowhere else; and then risk being mistaken for simple chancres, from the characters of which they are but slightly distinguished. Their differential diagnosis constitutes one of the greatest difficulties in the diagnosis of syphilis, and the question can only be settled by inoculation. Simple chancre will positively reply to inoculation, while the inoculation of syphilides will prove negative; so that, where there is doubt, inoculation should be performed. In some cases it may render the greatest service. A patient came from the country to consult me, who had been under treatment for more than two years for supposed simple chancres, ulceration having "decorticated" the corpus cavernosum. He absolutely denied having had syphilis, and refused inoculation or even an anti-syphilitic treatment. Returning two months later, the ravages of the phagedæna having increased, he consented to inoculation, which, practised on two successive occasions, proved negative, demonstrating the syphilitic nature of the ulcers. He underwent specific treatment, and the ulceration, which had lasted during twenty-eight months, and was continually extending, became arrested immediately, and in two months had undergone complete reparation, the recovery confirming the diagnosis.

Such are the results which are furnished by inoculation, but it supplies no others, and more need not be sought from it. It will remain mute if we seek for the differentiation of the accidents of the primary period from those of the tertiary period of syphilis. The pus derived from the ulcers of either of these periods will always furnish only negative results. But, even so restrained, the results of inoculation have their value, and more than this cannot be exacted.

Practice, Surveillance, and Treatment of Inoculation.—1. First of all, an absolute precept must be laid down. Inoculation must never be practised except in the interest of the patient. It is morally indispensable that it should never be resorted to unless a practical necessity for it exists. It should never degenerate into an experiment *in anima vili*. If it is a mere question of pure science, the practitioner should experiment upon himself, and not upon his patients. 2. Inoculation should only be practised when a serious indication exists, the importance of which renders the operation legitimate. It should be known, in fact, that inoculation is attended with some danger—the danger, in fact, of a simple chancre which may take on an ulcerative and extensive form, and lead to detachment, lymphangitis, erysipelas, and even phagedæna. No doubt such cases are rare, but they are authentic. I have seen and opened, several times, buboes in the axilla consequent on inoculations practised on the arm; and an example is recorded of phagedæna invading the integument of the thigh, and even placing the patient's life in peril. The practitioner is responsible for the inoculation and the chancre with its consequences that may ensue; and this he should never forget. Unfortunate inoculations have placed some practitioners in most uncomfortable and painful positions. As a general rule, therefore, we must be discreet in its application, only resorting to it when a serious indication authorises its employment. 3. Inoculation should never be done except with the full and free consent of the patient, who ought to be informed of what we are about to do, the intention of the procedure, and even the dangers that may attend it. I formally condemn inoculations "by surprise," practised on unconscious patients, thus transformed into subjects of experiment. Medical dignity prohibits such unjustifiable procedures. 4. Where should inoculation be performed? The choice of the region is of no great importance, but preference may be given to that of the deltoid. For the upper extremity being less exposed than the lower to fatigue, the danger of bubo is less; the cicatrix is covered by the dress, and, being in the vicinity of the vaccine cicatrices, its nature is not observable. 5. A sharp and grooved vaccine lancet is the best instrument for inoculation, being very superior to the needle, pin, etc. Charged with pus from the doubtful ulcer, without scratching or causing bleeding, the lancet is passed into the skin to the depth of one or two millimetres at the most. It should be directed horizontally, parallel to the surface of the skin, as without this precaution it may penetrate too deeply, becoming dangerous and yet less demonstrative. The inoculation should be protected by covering it with a watch-glass, which is fastened on by several circular strips of diachylon. In this way the pustule is allowed its full development without risk of irritation. When a simple chancre is the result of the inoculation it must be treated and healed as rapidly as possible, bringing it to an end while still small. The best means for this purpose is the application of Ricord's carbo-sulphuric paste, made of such proportions of carbon and sulphuric acid as to allow the mixture to attain the consistence of blacking-paste. A small portion is applied to the chancre and kept on its place by wadding. The paste produces a black crust adherent to the tissues, which slowly dries in two or three weeks. It is very rare for this cauterisation to fail in its object. Inoculation, thus practised and treated, is an inoffensive practice, exempt from danger, and one that is authorised for the establishment of the diagnosis, and consequently the prognosis, in doubtful cases.

Albuminuria in the Apparently Healthy.

Dr. Munn, Assistant Medical Director to the United States Life Insurance Company, New York, communicates a paper to the *New York Med. Record* (March 29), with the object of showing that albuminuria is a far more frequent occurrence than it is supposed to be by the profession. Many of the American life assurance companies, he says, for several years past have required examinations of the urine to be made when the amount assured was large, or the prior history or present appearance of the patient gave reason to suspect kidney disease. As so large a number as nearly 10 per cent. of all the deaths of policyholders in Dr. Munn's company occurred from Bright's disease, it was determined in 1877 to examine the urine of as many applicants as possible, in order to ascertain in what percentage of them the urine was abnormal; and so many cases of albuminuria were thus discovered that an examination of the urine was ordered in future to be made in every case. It was found that, in order to detect albuminuria in its early stages, many precautions had to be observed in the examination of the urine.

"For our purposes it was necessary to distinguish albuminuria in its incipiency, and to do this special precautions were taken. It was found that after having boiled urine, and added to it nitric acid, albumen, even though present in considerable quantity, might easily be overlooked if the test-tube were not perfectly bright and clean, or if it were not held in a light perfectly shaded. It is not sufficient to

hold the tube before a dark background, as the light from the window or burner dazzles the eye: it is necessary that the light enter the room through a comparatively small opening, and that it fall upon the test-tube, allowing the eye of the observer to rest upon a background entirely dark. After many experiments, the following plan has been found to answer the purpose fully:—I have placed immediately below the window-glass, and extending up to it, a large square of black pasteboard. The dark window-shade is then drawn down to meet the upper margin of this pasteboard, and carried out about a foot at the bottom. Immediately under this the test-tube is held. By this method nothing but reflected light meets the eye. If anyone will place, in a perfectly clean test-tube, urine containing a considerable quantity of albumen, boil the upper portion, incline the tube to an angle of 45°, allow two or three drops of nitric acid to trickle down to the bottom, hold it before an open window or unshaded burner, and afterwards place it in light reflected as described above, he will lose his faith in tests for albumen as ordinarily undertaken. It is important that the acid should be carefully added drop by drop while the tube is in the reflected light, as in this manner the test is far more delicate. It has also appeared that albumen in a urine alkaline, neutral, or even faintly acid, will not be readily detected. It must be distinctly acid; and when it is not, should be rendered so by the addition of acetic acid, and thoroughly well shaken before boiling. Unless this precaution be taken, albumen will be overlooked in many cases. It is also necessary for the urine to stand quietly in the test-tube at least five minutes after the nitric acid is added; at the expiration of which time, if no cloudiness appear, it may safely be pronounced non-albuminous."

Dr. Munn furnishes a table of twenty-four cases in which albuminuria was found in persons apparently in perfect health, and in whom its presence constituted the sole ground of rejection, these cases forming 11 per cent. of examined applicants. Half the number of these were under forty-five years of age. In nearly half the number there was excessive weight; and in nearly all the pulse was rapid. In testing the urine it is necessary to recollect that early morning specimens frequently contain no albumen, which is found in those voided at a later period of the day.

The Actual Cautery.

Dr. Post read at the Medical Society of the State of New York a paper (reprinted in the *New York Medical Record*, March 29) "On some of the Surgical Uses of the Actual Cautery," in which he observes that although the remedy has often been abused, he feels satisfied that in appropriate cases it is of great value in relieving severe and protracted suffering, arresting the progress of disease, preventing extensive disorganisation of important parts, and averting fatal results of morbid action. Encouraged by what he had observed in Germany as to its employment in chronic diseases of joints, he has for a long period employed it in these affections, and with such advantage as to induce him to extend its use to other diseases, characterised by obstinate, severe, and disorganising inflammation, or by severe and protracted pain, not yielding to other treatment. He enumerates some of the principal therapeutical uses of the actual cautery as follows:—

1. *As a Hæmostatic.*—Even now, when the ligature has for the most part superseded its use in arresting hæmorrhage, there are many cases in which the application of the ligature is so difficult or dangerous that it may be advantageously substituted. In some situations, as in the fauces, the vagina, and the rectum, it is our principal reliance for the arrest of hæmorrhage. Certain precautions are, however, required in using it as a hæmostatic. (1.) Before applying it the hæmorrhage should be temporarily arrested, as its application to a surface actually bleeding is an uncertain measure. (2.) It should be heated to a dull red heat, and its application should not be prolonged. If used at a white heat it may destroy the coats of the vessels more rapidly than it coagulates the blood, and the hæmorrhage may be thus increased. When at a red heat, for the same reason, it must not be pressed too firmly or too long against the tissues.

2. The actual cautery is employed for vascular tumours, constringing the vessels, coagulating the blood, and exciting plastic exudations; and for this purpose it may be used in a variety of forms. In the treatment of superficial *telangiectasis*, involving the arterial capillaries of the skin, the solar rays concentrated to a focus upon the vascular surface by means of a lens will accomplish the object speedily, without any breach of the surface, and without the formation of a scar. The flame of a blowpipe may also be cautiously directed upon the surface of the growth. But the most common treatment is that by cauterising needles, which should be blunt at the point, heated to a dull red heat, and applied at a great number of points. Dr. Post has often used with advantage Dr. Thorp's instrument, consisting of six metallic needles set in a frame at a distance of one-sixteenth to one-eighth of an inch apart. In subcutaneous venous telangiectasis, where the arterial capillaries of the skin are not involved, the skin may be dissected from a portion of the surface of the tumour, and a small globular cautery passed in—the disfiguring cicatrix being thus avoided.

3. It may be employed for the removal of growths in the fauces, vagina, or rectum, when excision would be attended with danger of uncontrollable hæmorrhage. Here the galvanic cautery is most advantageous, care being taken not to apply a high degree of heat, or to penetrate the tissues too rapidly.

4. The interior of a morbid growth greatly distending the vagina may be destroyed by repeatedly plunging into it a heated cautery-iron, thus reducing its bulk, and making it possible to extract it through the vulva.

5. "The actual cautery is a remedy of great value in the treatment of *severe and obstinate articular inflammation*. I have had large experience in its application to this class of cases, and I can confidently recommend it to the profession as a most valuable therapeutical agent. I have usually employed in these cases a globular cauterising-iron, attached by a narrow stem to a wooden handle. I heat it to a white heat, and apply it so as to penetrate through the skin to the subjacent connective tissue. I usually apply it at from two to four points, the patient being in a state of anæsthesia. I direct water-dressings for a few hours, and subsequently an ointment of balsam of Peru or of salicylic acid."

6. It is sometimes an efficient method of *restoring motion to paralysed limbs*, usually in cases of peripheric origin, where there is no morbid condition of the nervous centres the limbs having become paralysed by pressure or other mechanical injury. The application is here best made by means of the moxa, formed of three or four pieces of camphor of a conical shape and of three-eighths to half an inch in diameter. These cones are each surrounded by a coil of wet rag, and allowed to burn until consumed. The action thus produced is more exciting than that of the cauterising-iron, and does not cause so profound a disintegration of the tissues.

7. Dr. Post has employed the actual cautery with great satisfaction in a large number of cases of severe, protracted, and obstinate *neuralgia*, and for neuralgic pains occurring in various parts of the body, seldom failing to obtain marked alleviation, if not absolute removal, of the pains.

8. He has also used it in *cystitis* with a degree of success which seems to warrant further trials in obstinate cases of so distressing a disease.

9. In the great majority of cases *varicose veins* are best treated by the palliative procedure of methodical pressure, which can now be efficiently applied by means of Martin's elastic bandage. But in extreme cases, where obliteration of the diseased veins is indicated, Dr. Post suggests that the actual cautery may form the best means of accomplishing this. As yet he has only resorted to it in one case, when the application of cauterising needles at a large number of points along the course of the enlarged veins proved completely successful.

Vaccination.—Mr. Rigden, of Canterbury, has received for the fourth time the first-class award of the Privy Council for successful vaccinations, amounting to £27 18s

Royal College of Surgeons.—Professor and Mrs. Flower received a large and distinguished party in the Museum on Saturday last, when the whole of the College was thrown open to the guests, upwards of 500 in number. Almost the first arrival was his Excellency the Chinese Ambassador and suite.

REVIEWS.

Elements of Dental Materia Medica and Therapeutics, with Pharmacopœia. By James Stocken, L.D.S.R.C.S.Eng., Dental Surgeon and Lecturer on Dental Materia Medica and Therapeutics at the National Dental College, etc. Second Edition. London: J. and A. Churchill. Pp. 319.

This exceedingly useful little manual first appeared in sections in the *Monthly Review of Dental Surgery*, but has since been carefully revised and added to. The original conception was simply to make a kind of hospital pharmacopœia; but that was speedily put on one side, and the work appeared in something like its present form. But in this new edition so much has been added that the work assumes a greatly altered aspect. There are tables of weights and measures, symbols, poisons, etc., together with a set of notation tables specially prepared for the book. As it now stands, the book might be regarded as addressed to a class somewhere between the general public and the medical practitioner, and we suspect that many dentists will not like such a position thrust upon them. In this respect the author, in our view, is wrong; but in others he makes up for it by his exceedingly concise descriptions of the uses and applications of some drugs. But if he has done wrong to the profession by treading on its skirts, let us be revenged on him by quoting the various recipes for dentifrices which he gives. Next to a hair-wash there is nothing one is bothered about in private life so much as a good tooth-powder. Listen to what Mr. Stocken recommends:—

For an antiseptic dentifrice—℞. Acidi carbolici, ℥xxx.; pulveris ossis sepiæ, ʒij.; pulveris radicis iridis, ʒij.; cretæ præcipitatæ, ʒiij.; olei caryophylli, gtt. iij. M.

For an astringent dentifrice—℞. Cretæ præcipitatæ, ʒij.; pulveris ossis sepiæ, ʒij.; acidi tannici, gr. xxx.; olei caryophylli, gtt. iij. M.

For an ordinary tooth-powder—℞. Cretæ præcipitatæ, ʒxij.; magnesiæ calcinatæ, ʒij.; pulveris saponis albi, ʒiv.; pulveris cinchonæ flavæ, ʒiv.; pulveris ossis sepiæ, ʒj.; pulveris aluminis usti, ʒij.; otto rosæ, ℥viij.; olei caryophylli, ℥vj. M.

Quinine dentifrice—℞. Quinæ disulphatis, gr. iv.; pulveris ossis sepiæ, ʒiv.; cretæ præcipitatæ, ʒiv.; otto rosæ, gtt. iv. M.

Soap dentifrice—℞. Cretæ præcipitatæ, ʒiv.; pulveris saponis albi, ʒij.; pulveris ossis sepiæ, ʒiv.; otto rosæ, gtt. iv. M.

So much for Mr. Stocken's dentifrices, as they are in his book, given in full.

Fistula, Hæmorrhoids, Painful Ulcer, Stricture, Prolapsus, and other Diseases of the Rectum: their Diagnosis and Treatment. By William Allingham, F.R.C.S., Surgeon to St. Mark's Hospital for Fistula and other Diseases of the Rectum, etc. Third Edition. London: J. and A. Churchill. Pp. 325.

With justifiable pride the author says in his preface, "That this book has not been written in vain, I take is evidenced by the fact that two editions have been sold in America, that it has been translated into several foreign languages, and a third edition is demanded in this country." An author who can write thus, and a book which can so be spoken of, needs little help from us. We can only state that in our esteem no word of praise is overstrained. The book has been undoubtedly a vastly successful one, and most deservedly so. We need only add that the present edition is to a great extent re-written, and that it has the same distinctly practical character as heretofore.

The Notation Case-Book. Designed by Henry Veale, M.D., Assistant Professor of Military Medicine in the Army Medical School, Surgeon-Major to the Army Medical Department, etc. London: Smith, Elder, and Co.

This is neither more nor less than an attempt to reduce note-taking in medical cases to a systematic method of using symbols—what we might well call a kind of professional shorthand. That the system here shown forth would give precision to note-taking, such as is seldom attained to now, is quite certain, but we greatly fear that the notes would be of little use except to the note-taker himself, and not always then, for certain of the abbreviations or symbols would be apt to escape his memory, and continual reference to an index of these would be little better than a constant application to the pages of a dictionary. Nay, more, the same letter is made to refer to many things; thus, C stands for "Cardiac," "Cavernous," "Confused," "Consistent," "Constipated," "Costive," "Constant," "Continual." Whilst, therefore, duly appreciating the importance and value of Dr. Veale's suggestions, especially as regards exactness and accuracy, it seems to us that the system of note-taking here recommended would only be of use as a kind of preliminary step towards a perfect record of the case in the ordinary way. Nothing is easier than to make such records too minute. The main thing is to record what is observed, and to make certain that nothing is overlooked. But for dull reading commend us to a painfully well taken case. The skilled physician can by a few graphic touches do more to bring home to the mind the exact condition of the patient than will pages of notes. Nevertheless, Dr. Veale's scheme is well worth careful consideration.

A Digest of the Principles and Practice of Medicine, with a Short Account of the History of Medicine and Tables of Indian Materia Medica. By Rustomjee Nasherwanjee Khory, M.D. Brux., M.R.C.P.; Fellow and Licentiate in Medicine of the University of Bombay; sometime Lecturer on Midwifery, Gujarati Class, Grant Medical College, Bombay, etc. London: Smith, Elder, and Co. India: Thacker and Co. Pp. 1056.

This is one of a class of books which are difficult to estimate aright. On the face of it there is no indication of the special purposes to which the author intends it to be devoted. It is dedicated to the esteemed President of the Royal College of Physicians (Dr. Risdon Bennett), and to Sir Joseph Fayrer. Perhaps this is a fair index to the character of the work. In the preface the author says that it was the course of study indicated by the examinations at the College of Physicians which first led him to arrange his knowledge in writing, the outcome of which is the big book now before us. To Sir Joseph Fayrer he appeals as to a friend of India, and thus he seems to appeal at once to the British medical student or practitioner and to his Indian brethren. The volume itself is not specially addressed to Indian students, though in its structure in certain places the author's purpose is evident. There is, therefore, little room for doubt that the author, having taken rigorous notes, as is the habit of Eastern students, resolved to put them into form, and has now added to them the special acquirements he had made before his arrival in this country. Well, most of us know the nature of a student's notes in the course of reading a given volume. They are of all kinds—some with a query, some without; but there are, as a rule, few of the former. In this way the notes become a reflex of the various, and perhaps conflicting, views of different authors—not very often of his own judgment, even supposing that would stand any very strong test. Probably this has been the plan adopted by Dr. Khory, otherwise we should be quite unable to account for the very various qualities of the articles, or chapters, he has put before us in the part that is strictly "home-bred." If the question arises whether this will be of use in India, we can have no hesitation in voting "yes"; but we should say that its success in this country is likely to be limited. The most curious part of it, to our mind, is the letter from Dr. Norman Moore to the author, dealing with the whole history of "physic" in some fifteen or twenty pages, which sounds much as if it had been delivered on the occasion of some "penny reading." If Dr. Norman Moore thus voluntarily saddled himself with a share in the responsibility for the volume, probably he was wrong. If, on the other hand, Dr. Khory has published this without Dr. Moore's consent, Dr. Moore has reason to complain of him. There can be no doubt, however, that Dr. Khory has done his best to put a useful manual into the hands of students.

Freedom in Science and Teaching. From the German of Ernst Haeckel. With a Prefatory Note by T. H. Huxley, F.R.S. London: Kegan Paul and Co. Pp. 121.

To one who has a taste for controversial literature this little volume will be what is popularly termed "nuts." In it Haeckel, the great apostle of Darwinism, in point of fact

out-Heroding Herod, falls foul of our distinguished brother Virchow. In a lecture, the substance of which at the time was laid before our readers, Virchow suggested rather strong doubts as to the origin of man from the Darwinian point of view, and his adhesion to what some are pleased to call the orthodox view gave great delight. We say with hesitation "the orthodox view." In science there can be no such thing, as it seems to us, as orthodoxy or heterodoxy: there can only be truth. Professor Huxley's introduction is racy as usual.

The Localisation of Cerebral Disease. Being the Goulstonian Lectures of the Royal College of Physicians for 1878. By DAVID FERRIER, M.D., F.R.S., F.R.C.P., Professor of Forensic Medicine, King's College, Assistant-Physician to King's College Hospital, etc. London: Smith, Elder, and Co. Pp. 142.

LITTLE need be said here of the value and importance of these lectures. At the time of their delivery we gave abstracts of them so full as to differ little from the original text. They are now republished in an elegant and convenient form, illustrated, and with some considerable additions. It might have been as well, however, had the author acknowledged the source of his illustrations in every case, or even generally, for few are original. The whole volume is, however, so suggestive that we have but little cause for complaint.

The Evolution of Man: a Popular Exposition of the Principal Points of Human Ontogeny and Phylogeny. From the German of ERNST HAECKEL, Professor in the University of Jena, author of "The History of Creation," etc. Two vols. London: Kegan Paul and Co. Pp. 467 and 504.

WHAT to say of these two volumes puzzles us beyond measure. To recognise in them a master hand is easy: to discuss them in detail would require a space quite as large as, if not larger than, that which the volumes themselves occupy. Thus we are left, and practically compelled, to say little or nothing. Haeckel is able and willing to trace the evolution—as it is now the popular mode of speech to call such things—from the lowest form of vegetable growth to the highest animal development in man himself. But from another point of view, which probably Haeckel would call decidedly unscientific, he stops short: there is no description of angels in the book. This seems to us decidedly below the average attempts in such volumes. So much in them is taken for granted that it seems a pity to leave off. As regards the existence of angels and their occasional appearance on earth, the evidence is quite as good, to say the least of it, as that which relates to the "missing links." Therefore, say we, let us have no more of these evolutionary doctrines till the matter of the angels is cleared up, or, what perhaps would better suit our friends, "bridged over."

Dispauperisation: a Popular Treatise on Poor-law Evils and their Remedies. By J. R. PRETYMAN, M.A. London: Longmans, Green, and Co. 1878.

THE present volume is a second edition, revised and enlarged, and containing a further accumulation of evidence to show that the great cause of pauperism in this country is the poor-laws. It cannot be disputed that the author makes out a very strong case for voluntary as against compulsory relief, more especially when he shows that where the latter is in force the former will always be going on at the same time, each often interfering with the other and tending to increase pauperism by increasing its resources; as, for instance, in London itself, where, on authentic testimony, it is stated that £5,000,000 is annually expended in charity. It is more difficult to agree with Mr. Pretyman in his assertion that compulsory relief must in its administration be more liable to abuse and extravagance than the opposite kind, since indiscriminate charity requires, even under our poor-law system, such checks as the Charity Organisation Society to prevent its being bestowed on the most worthless objects. Nevertheless, we may join in his assertion that the compulsory method cannot be more necessary for England than for other countries; and in these latter where it does not exist there appears to be no more of destitution, and no less of industry, while there is certainly more of thrift and self-restraint than among our own population. But if the poor-laws, as they now stand, are ever fated to cease to exist, the change will have to be a gradual one, since it will take years to undo what legislation has so firmly built up amongst us; and we doubt whether any space of time would be sufficient for the fulfilment of the golden visions on the subject indulged in by Mr. Pretyman.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 4.

W. S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

ADJOURNED DISCUSSION ON THE USE OF THE FORCEPS, AND ITS ALTERNATIVES IN LINGERING LABOUR.

(*Continued from page 662.*)

DR. M'CLINTOCK (of Dublin): I assure you with all sincerity I would much prefer being a listener to this discussion to taking any part in it. However, I came over to London for the purpose of being present, and I will take advantage of your indulgence, and the indulgence of the members, to offer a few remarks, though, not having had charge of a hospital, and, of course, the opportunities of the enormous experience which a large hospital affords, now for several years, my own direct experience in the use of this modern high development of the employment of the forceps is very limited. In the first place, let me express my very warm approval of the course which the Society has taken in bringing under the notice of its members such a very important subject as the consideration of the forceps. We should not forget that there is probably no agency, whether medicinal or surgical, that has effected a greater saving of life and a larger abridgement of human suffering than this instrument, the forceps. And the forceps can boast of something more than that—what no other agent or instrument can boast of,—it was in a great measure the means of effecting a vast and important revolution in practice in this country. It was the introduction of the forceps and its skilful employment that led to the rescue of midwifery from female hands, and brought it under the care and the culture of scientific surgeons and physicians; and as a consequence of this—with all respect to the ladies I say it—scientific midwifery has made more progress in the last hundred and twenty years than it had in the thirty centuries preceding. I think, sir, then, that this instrument well deserves at our hands any amount of consideration or time that the Society could devote to it; and I think, speaking as an individual member of the Society, our thanks are due to that distinguished member who brought this subject under our consideration in a paper characterised by a remarkably impartial and philosophical spirit. Having said so much by way of preface, I will address myself very briefly to the two great points in Dr. Barnes's paper; and I shall speak first upon the use of the forceps in the high operation; and then say a word or two about its employment in the low operation. I must express my hearty acquiescence in one or two general observations contained in Dr. Barnes's paper, apart from my admiration of the paper as a whole. In the first place, I entirely agree with what he says about the danger of drawing fixed conclusions. It is a dangerous thing to lay down fixed rules in medicine or midwifery. In the next place I entirely approve of his observation that he fears statistics will aid us very little in the investigation of this question, from the difficulty of obtaining facts that are available. I know that Dr. Barnes has expressed on other occasions his hesitation and doubt with regard to the value of statistics, and I am myself more and more coming round to that opinion. I have seen some most enormous errors and misapprehensions engendered and diffused by the inaccurate, incautious, and illogical employment of statistics. We are discussing the use of the forceps in purely lingering labours. With regard to the use of the forceps in the first stage of labour, I think perhaps the important distinction of the presence or absence of the liquor amnii is sometimes lost sight of when we speak of the first stage of labour. I think that that constitutes a most enormous difference, and I regard it as one of the most generally true maxims in midwifery, that as long as the membranes are entire and

the liquor amnii present, no danger will accrue to mother or child by the continuance of the labour process, except from convulsions or hæmorrhage. That is an axiom which I believe is perhaps the most universally true of any practical axiom in midwifery, and it is one upon which I have invariably acted. The table prepared by Dr. Churchill, as showing that the first stage may be indefinitely prolonged without any injury to the mother, has perhaps been relied on a little too much. I have qualified my opinion with regard to the prolongation of the first stage and the comparative freedom from danger from it by saying that the water should be present and the membranes unbroken. Dr. Churchill gives 144 cases where the labour was excessively prolonged in the first stage—in one case up to six days—and the second stage was short in all the cases, and the women recovered. I think that that is a question, perhaps, of misleading statistics, for on looking through his work I find that these were really selected cases, and he did not include in this table of prolonged first stage any cases where an operative proceeding was required to terminate the delivery, or where the second stage was prolonged; and we all know it is a very common consequence of the long first stage that the woman, when she enters into the second stage, is weakened, and that strongly predisposes to the necessity of artificial interference. Dr. Johnston, in his cases, mentions twenty where he proceeded to use the forceps whilst the membranes were still intact. On that point I may say I entirely dissent from his practice, and such a course I would not myself, on any account, pursue. I can hardly say that such a proceeding would be justifiable, certainly not without in the first instance endeavouring to dilate the os uteri, and certainly to rupture the membranes. However, it is but due to Dr. Johnston to make a remark or two about his statistics, as they have been very freely commented upon. In fifteen of his cases of the 169 where he used the forceps before full dilatation of the os uteri, the forceps were used either on account of hæmorrhage, placenta prævia, descent of the funis, or convulsions. These certainly should be excluded from our consideration of the use of the instrument in purely lingering labours. His mortality was 5·2 per cent. of the 169 cases. But when you come to analyse that, you find that five of the deaths arose from convulsions, or gastro-enteritis, from which the patient had been suffering many hours or days before admission to the hospital, so that that would reduce his mortality to a little over 2 per cent. I mention this in fairness as but due to him. Before leaving Dublin I distinctly put this question to him, and in no instance has he applied the forceps unless the os uteri was dilated to the extent of two-fifths. Now, my estimate of the value of the forceps in the higher operation agrees mainly with that of Dr. Barnes. His remarks with regard to it fully express my own sentiments. He says, "Experience compels me to affirm that the necessity of this operation cannot be frequent"; and such I entirely believe. Again he says, "The operation is not without danger in skilful hands." That I also believe. And again, speaking of the use of the forceps where the head is high above the brim and the os uteri only imperfectly dilated, he says, "Far more judgment and skill are required in deciding upon and carrying out the operation under these circumstances." Allusion has been made to ergot. I must say I entirely disapprove of the use of ergot before the os uteri is dilated, or where the head is above the brim. I think it is a most objectionable practice, and it is one I have never myself adopted or sanctioned in any instance. That is all I have to say with regard to the high operation. With regard to the low operation, I must somewhat question Dr. Barnes's first proposition—at least, it requires to be a little qualified, for he says the forceps is superior to any of its alternatives. Now, I cannot agree with the remarks that have fallen from my esteemed friend and compatriot, Dr. Atthill, about the use of ergot of rye. I think ergot of rye, cautiously and rightly used, restricted to the cases where it is really justifiable and appropriate, is a most valuable remedy, and is not likely to do any harm. With all respect I say this. If the head is in the pelvis, and there is no mechanical obstacle to its expulsion, where all that is required is a little increase in the *vis à tergo*, I can see no objection to giving ergot; and certainly, in my own hands, in a considerable number of cases, it has acted most satisfactorily and expeditiously in bringing matters to a conclusion. It know it involves danger to the child, but by timely interference you can rescue the child. If it gives good pains, that is all you want. The probability is that the labour terminates; that is what you want. If it fails to produce uterine action, it will do the child no harm. It is a point upon which I am clearly decided from very careful consideration, that ergot only acts injuriously upon the child in a mechanical way by the character and intensity of the uterine contractions which it induces; and if it fails to produce these contractions the child will not suffer; and in either case, whether it does or does not, you are just as capable of delivering with the forceps as if you had not given the ergot, and it is always a good preparation for the use of the forceps. Dr. Edis alluded very properly to some other auxiliaries that we may employ under those circumstances in purely lingering labour, and, amongst others, pressure upon the uterus. Of that, however, I have no experience; but as to putting the patient in an upright position, and administering nourishment and stimulants and so forth, I think that they may often be fairly and judiciously tried. Of course the great number of cases where the forceps is used with such extraordinary frequency as we see in the present day are cases of this description, where the head is in the second stage of labour: it is the low operation which is performed. Now, the forceps, like nearly every other agent or remedy, has had to go through certain stages after its discovery, and those stages are three. In the first instance, when a remedy comes out it is extolled and praised; it is taken up with the greatest enthusiasm by the whole of the profession, and it is, of course, often misapplied, misused, and administered in cases where it is wholly unsuitable, and a great deal of injury and disappointment results. Then there is the reaction, and the medicine is thrown aside and consigned to an unmerited oblivion. Then, perhaps, at a later stage, there is a reaction in the other direction, and it again comes into vogue. That is the present stage of the forceps. After the forceps was discovered everyone thought he could use it, and a great deal of mischief was done. This led to the reaction, which was brought about under the influence of Hunter, Osborne, and other men of that stamp, and, later, by Robert Lee and Collins, and the forceps then fell, I believe, into an unjust contempt. Now we are emerging from that and have got in the last few years into the third stage; and I should hope that now—though I see that there is rather a tendency to the other extreme—still I should hope that under the guidance of men such as this Society is composed of, men of judgment, capable of giving a clear exposition of their views, and putting them forward in a philosophical manner,—I should hope the reaction will be kept within proper bounds. I have lived to see two of these phases in the history of the forceps. In my early life the rule laid down was never to resort to forceps until symptoms began to appear which we knew were indicative of commencing inflammation, either locally in the vagina, or disturbance set up in the whole system; and the consequence was, a large proportion of these cases were followed by more or less injury to the vagina, and in not a few cases by sloughing, from the use of the instrument being delayed too long. Of late years our general plan has been not to wait for the accession of these symptoms, but if, after waiting two or three hours, no advance is made, on the first symptom of failure of the patient's strength to resort to the instrument, and by its timely use save the child and the mother. Where the forceps is employed before any inflammation is set up in the vagina, I believe injury from its use is extremely rare, except perhaps injury to the head of the child, from the forceps not having been correctly and properly applied on the perineum; but no dangerous injury has resulted, and in this way I am satisfied a great deal of life has been saved, and that the resort to craniotomy has been most materially diminished. The experience of the lying-in hospitals abundantly shows this. Now about this great frequency of the forceps: we hear of some men using the forceps once in every seven cases, others once in every ten, and some more frequently than that. I am inclined to think that perhaps that is pressing it a little too far. In my own private practice the frequency with which I use the forceps is exactly one in thirty; but I know it is not fair to compare private and hospital practice at all, because the classes of cases you meet with are quite different. In private practice also you have the patient under your own control from the commencement, and she may be considered to be properly treated; but in a hospital the patient is often brought in suffering from the ill effects of a great deal of mismanage-

ment and bad treatment, and if she dies, of course the death is set down to the master and to the discredit of the institution. The problem to be solved is this. What I want to express is perhaps more clearly put by the editor of Smellie of the Sydenham Society's edition in one of the notes:—"What, I should like to know, are we to consider as the highest rate of frequency of the forceps coexistent with the lowest rate of mortality to mother and child? As long as the mortality diminishes *pari passu* with the more and more frequent use of the forceps, we are justified, I think, in going on. But surely there must be some limit to this, and some line beyond which the mortality will gradually begin to rise in a certain ratio with the increasing frequency of the operation." If we could but just determine that problem, I think it might point out to us the exact limits within which the forceps might be employed. On the whole, contrasting in a general way the old and cautious use of the forceps where the policy of procrastination was employed, with the more frequent, and I believe the too frequent, use of forceps of the present day, I am bound to confess the advantages are on the side of the latter practice as contrasted with the former.

Dr. Bassett (of Birmingham): I desire to unite with the gentlemen who have preceded me in thanking Dr. Barnes for having placed this subject before us for discussion. It is impossible to conceive that any matter of greater importance, affecting the welfare of the public and the credit of this Society, could have been placed before it. Unfortunately for us who have to play the part of critics, Dr. Barnes has treated this matter in so complete and philosophical a manner that, except in the way of commendation, it is difficult to say anything by way of criticism. I shall not, however, at this time of the evening, and considering that others have to speak, do more than say that, the old landmarks with reference to the use of the forceps having been thrown down, it was quite time to look out for a scientific frontier, a certain geographical area within which we can operate with precision, with freedom, and with safety to our patients. We have this in the statement that Dr. Barnes has placed before us, copying as he did the teachings of three of the greatest men who ever taught in recent times in midwifery, adding his own experience to these, and giving us an epitome of what we desire to know and carry into practice with reference to the use of the forceps. There is, however, one reservation I should be disposed to make with reference to the five propositions with which he terminated his paper, and that is as regards the employment of ergot. I think the case against ergot has been a little overstated. If you give ergot and watch its effects, if it fails to produce the desired result, you have the forceps at hand to terminate the case without difficulty. My experience has led me to that conclusion. I am satisfied in many cases I have succeeded in effecting delivery by ergot without forceps, when, had I not, I must have at once employed the forceps. Then, with reference to the more interesting and more important matter, the use of the forceps in the high operation, I have had an opportunity of making use of this instrument where the os uteri has been undilated on several occasions, in the majority of cases with considerable benefit. In a few the operation has failed, and I have had to resort either to turning or to craniotomy. Looking at the matter altogether, if the operation is undertaken prudently, although the os uteri may be only partially dilated, I think less harm will come to the patient than if other methods of treatment are employed.

Dr. Henry Bennet: I feel some reluctance at rising to take part in the present discussion, as the remarks I have to make do not directly follow in sequence of the most valuable observations which have been made. Allusion has been made to rigidity of the cervix, and all our obstetrical works are full of allusions to the rigidity of the cervix as hindering the progress of labour, and necessitating sooner or later the application of the forceps. I was led by several remarkable cases that occurred to investigate the nature and origin of this rigidity of the cervix a little more narrowly than had been done, and I made it a point, whenever I remarked rigidity or induration, to examine my patient two months afterwards; and I always found in those patients pathological conditions—chronic inflammation, induration, enlargement of the cervix,—and thus the nature of this interference with the normal physiological process of parturition became revealed; and this throws a little light upon the treatment of these conditions, and shows the inutility of many of the agencies usually resorted to—belladonna, etc.,—and the advantage that is derived in many cases from incisions. I would also say, as a gynæcologist, we have frequent opportunities of examining women who have gone through instrumental confinement, and I am constantly in the habit of finding, four or six months afterwards, lesions connected with instrumental delivery; and I think the rule I follow myself ought to be followed by all obstetricians, that whenever any instrumental labour has taken place, whenever there is any rigidity or interference with the natural and physiological course of labour, no patient should be afterwards left to herself. It should be a matter of rule that six weeks or two months after, an examination should be made to ascertain whether the state of the genital organs is sound. If this rule were followed, a vast amount of physical suffering in women would be saved. Lesions would be discovered, and easily cured within a few months after confinement, which are very difficult to cure when they have existed for some years.

Dr. Cranny: The fact of my having been Assistant-Master of the Rotunda Hospital, during the period that Dr. George Johnston was Master, may be sufficient excuse for my venturing to make a few remarks on this paper. I may say that in the main I agree with Dr. Barnes, but there are a few minor points I should like to remark upon. And first of all as to the necessity of early operation in certain suitable cases. There is no doubt that there are many cases where the necessity exists for interfering before the os uteri is fully dilated. First of all, it is necessary in order to prevent undue exhaustion of the patient. As Dr. Barnes so very ably puts it, the patient may have gone through a severe first stage of lingering labour, and thereby her powers are exhausted, and she has not sufficient strength to carry her through. In that case there is an undoubted necessity for the use of the forceps. Then the early operation prevents sloughing and its consequences. Now, this evening we have heard from Dr. M'Clintock that the use of ergot when it acts may cause injury to the soft parts of the mother. Why may not the same danger occur if there is a great pressure upon the uterine action caused without the use of ergot? This undoubtedly exists, particularly in the cases where the membranes have been ruptured early, and I think Dr. Barnes will agree with me when I say that this early operation in many cases saves the life of the child; and also we know, from statistics which have been published in a paper by Dr. Kidd, that this early interference has decreased the number of craniotomies considerably. I think the number of recoveries that have taken place under this practice which Dr. Johnston has carried out so fully, and which has been criticised so largely, are quite a sufficient justification for his practice. And we must bear in mind that, though there were nine deaths, yet he accounts for every one of those fatal cases otherwise than by the use of the forceps, and it is not fair in criticising him to attribute the deaths to the early use of forceps. There is one point, I think, that should not be forgotten. Though Dr. Atthill has told us this evening of a case of rupture of the uterus occurring from use of the forceps, still I think I may say that was because the forceps was used in an unsuitable case. If the os uteri had been properly softened and dilatable, that rupture would not have taken place. I have seen the post-mortem examinations in most of the cases of death that occurred during Dr. Johnston's mastership, and in no case was there injury done to the uterus by the forceps. As a proof of this absence of injury, I may mention a minor point in practice, but still it will go to bear me out. It was very seldom that we were obliged to use the catheter after delivery in cases of labour that were completed by the use of the forceps, proving that there was no inflammation. This, I believe, was not the case in former times before early interference was practised. Many cases are on record of sloughing of the vagina, and I believe they were altogether caused from the want of proper assistance in time. The suitable cases, then, are those in which the os uteri is dilatable and soft; it is not right to introduce the forceps in cases where there is a rigid cervix. Then Dr. Barnes says the natural order and process of labour is disturbed by the operation. That I do not think he is quite right in. I do not believe that the fact of introducing forceps interferes with the natural process at all. Of course it hastens it, but as to causing any ulterior bad results, I do not think it does. I never noticed the slightest disposition to post-partum hæmorrhage or retention of the

placenta, and I never saw a case where the uterus was dragged down to the vulva; and so far from there being a bruising of the soft parts, I think it is a saving to them, because we save the tremendous and long-continued pressure upon the soft parts. I agree with most of Dr. Barnes's conclusions, except, perhaps, with No. 4, which I think requires a little modification. There are other considerations besides the position of the head which should influence us as to the use of the forceps. We must also take into account the time the waters have escaped, and whether any progress is being made; also the amount of suffering of the mother, and the danger that exists to the child from the long-continued pressure.

Dr. SAVAGE: If I may without presumption make a few remarks, I should like to elicit some further information from our Dublin friends. Though I have not attended a case of midwifery for twenty years, yet up to that period my practice was not inconsiderable, and I have ever retained a very lively interest in all that concerns the practice of midwifery, and have watched its progress, and also have been quite surprised to see the new tone that this branch of medicine has assumed. My past experience clashes very much with much that I have heard to-night. When I say my practice was considerable, I attended patients before I ever attended lectures. I have attended lingering labours, and never used the forceps once, and never lost a case. I am connected with a hospital to which is attached a maternity —a small one, but it is the better watched because it is small. They have cases of lingering labour, but I hear of no deaths, and that has been going on for twenty-five years. Now, for anyone with an experience of that kind to come in collision with statements regarding the use of the forceps once in every five or ten cases is quite amazing. I cannot understand it. I have had lingering labours continuing two days; and what has been the end of them? Why, they always did very well without the forceps. And, more than that, there seems to be an error running throughout the whole of this debate, and, although I quite agree with all that has been said with regard to the mode in which Dr. Barnes has introduced the subject, it seems also to run through his paper, and that is—looking at the dilatation of the cervix of the uterus as a mechanical affair, that it can only be done by a superincumbent pressure. The dilatation of the uterus, in my opinion, is entirely a vital act, having to do with the state of the constitution or the nerves of the patient. If it were not so, what would be the use of your alternatives? If it was not a physiological act, what is the use of the warm water, the chloral, and the opium? You have no mechanism there, and therefore I say, if a man enters the practice of obstetrics with the sole idea that the opening of the uterus is a mechanical thing, he will be a very bad practitioner to the end of his life. You say naturally, "Here is no *vis à tergo*; then I will have a *vis à fronte*." I am not going into details about these alternatives, which seem to be rather condemned in Dr. Barnes's paper, though, for my part, I think a great deal of them. I was, however, very much struck by an observation which fell from a speaker on the previous evening, who said, "The Dublin school has been talking a deal of nonsense." I was perfectly amazed. I know a great deal of the Dublin school, and, with the exception of thinking that Dr. Johnston's practice was extreme and such as I could not comprehend, I had great respect for the Dublin school. To be sure, the speaker either apologised or said "present company excepted"; but I thought it a left-handed way of getting out of it. I paid particular attention to what he said, and I am certain that never in the course of my life did I hear any such nonsense from anyone. What did he say? He said he would introduce the long forceps,—and here I must call attention to what Dr. Barnes has said about the long forceps. When you are speaking of the high operation and the low operation, you are speaking of two very different things. Who will undertake the high operation under any circumstances, unless he has had some practice in the use of the long forceps? I consider it hazardous in the extreme in untutored hands. "Now," said he, "what do I do? I will tell you. I just take my forceps, and I do not care much about the resistance of the os and the cervix; but I get my forceps in; and when I have got them there, by the adoption of some little screw I make this a squeezing forceps, and I will reduce the head so that I can bring it down eventually." Fancy a man with my experience twenty years ago hearing such sentiments as these, and imagine what must have been my amazement! Now, I will say this to my Dublin friends. If you get your forceps into the uterus, the head not descending, and it is above the brim, I will defy any man to tell what part of the fœtal head he catches hold of. I am justified in that by what is remarked by Cazeaux, a Frenchman of great distinction, whose book is adopted by the Faculty. He says that the head is a movable head, and you may catch it by the eye or by the neck, or you may lay hold of it in such a way that it acts something like a cherry imperfectly held by the fingers, that will slip off—that is, your forceps will slip off, and will inflict a most serious gash. I need not say what would be the consequences of such a result on the eye or the neck. Now, I can imagine this gentleman having got hold of the eye or the neck, and then he applies his screw to reduce the capacity of the forceps. Do you mean to tell me that you will extract a living child under those circumstances, or that you are likely to deliver without serious injury to the woman? Certainly not. I have listened very attentively to our Dublin friends. I have a great respect for them; and they have said, in my opinion, the most sensible things that have been said, notwithstanding the allegation of nonsense that was cast upon them. I hope I am not out of order in trying to elicit what is their experience with regard to these allegations of Cazeaux. I have not heard one word said in this discussion about the uncertainty of the hold that the long forceps may take upon the head when it is high up; I do not mean when it is down, really resting on the brim, and where you are pretty sure. Supposing you are so fortunate as to get hold of the head, back and front, and you bring it down within the area corresponding with its longest diameter flat on to the top of the pelvis, you will not get it through unless you squeeze with the instrument. How then do you hope to get it through? I know you talk about leverage, but the effect of your leverage is simply to do what you can demonstrate on any old tin kettle. Referring to my own practice, I remember we had the long forceps (which we never used), and there was a perforator, but we had not the paraphernalia of the new system. I mention this to contrast the practice of twenty years since with the present practice, and all I wished was not by any means to compliment the Dublin friends, but to do them some little justice in return for the left-handed compliment which was paid them. I should certainly like to know all about this catching hold of the head, and whether in their experience they ever happened to catch hold of the eye or the neck.

On the motion of Dr. Roper, the debate was adjourned till the meeting in July.

THE EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, JUNE 4.

Surgeon-General J. MURRAY, M.D., President, in the Chair.

DETAILS OF EXPERIMENTS ON THE VACCINATION AND SUBSEQUENT REMOVAL OF SUPERNUMERARY FINGERS, APPARENTLY SHOWING THE IMPERFECT PROTECTION AFFORDED BY VACCINATION WHEN THE VESICLES ARE REMOVED BEFORE THEIR FULL MATURITY.

DR. COEY read the above paper. The author said that the number of cases experimented upon was four; three of the children had supernumerary thumbs, the other had a supernumerary little finger. The thumbs were vaccinated and cut off—one on the sixth day, one on the fifth day, and one on the fourth day after vaccination. Revaccination was performed in all these cases from thirty-nine to fifty-six days after the primary vaccination. There were two results of these experiments which were noticed. The first was an areola, which existed on the hand from which the digits had been removed on the eighth day after vaccination. This might of course have arisen from the irritation of the wound; but, if not, it must have been due to the same causes as those which lead to the development of the areola after ordinary vaccination. The second result—viz., that noticed in regard to the revaccination of this case—was the most important. The child whose thumb was removed on the sixth day was found proof against revaccination. All the three other cases took, but the course of the vaccination differed very materially from a primary vaccination. The course was very rapid; the

areola developed on the sixth and seventh days, instead of on the eighth and ninth. The scabs formed early, and most of them were desiccated by the twelfth day. In these particulars; and also in the appearance of the vesicles, these revaccinations presented great similarity to ordinary cases of revaccination. It is well known from Bryce's test that when a second vaccination is performed on the fifth day after the primary, the vesicles which result run a rapid course; so that they overtake the primary vesicles, and both mature together. The same thing happens when the second vaccination is done later than the fifth day, as the following case proves. A child was vaccinated in four places on the right arm. On the seventh day afterwards it was vaccinated in another place on the left arm. For the next five days a place was vaccinated daily. It was found that the places vaccinated on the seventh, eighth, and ninth days after the primary vaccination took; but those done on the tenth, eleventh, and twelfth days did not take. On the fifteenth day all the scabs on both arms were desiccated. The ninth day after the primary vaccination was in this case the latest day any result could be obtained by a fresh insertion of lymph, and this is precisely the result which Trousseau had observed in his experiments mentioned on page 121, vol. i. of his work on Clinical Medicine (third French edition). As the vaccine vessels usually increase in size up to the ninth day, but not afterwards, it is seen that the last day we can vaccinate with effect is also the last day the vesicles increase in size; and this is what we might expect, for the vaccine vesicles will increase in size until the skin has undergone that unknown modification which renders it incapable of being further affected with the vaccine virus. When this has taken place the vesicles cannot spread. Now, suppose in one of the above experiments we had vaccinated the child in another portion of the skin on the same day we amputated the fingers, what would have been the result? Probably this, that the second vaccination would have run a rapid course, just as we have seen how it would have done if the primary vesicle had not been interfered with. From these considerations it seems probable that the modification, whatever it may be, which renders the system incapable of further infection with the vaccine virus is a progressive one, commencing at the time or shortly after the first insertion of the virus, and going on hand in hand with the development of the vesicles. What the experiments seem to show is that this progressive modification is arrested when the vesicles are removed, and that when vaccination is again performed the modification already partially accomplished proceeds to completion from the point at which it had arrived when arrested. We can by the foregoing supposition explain the likeness which we have seen to exist between the revaccination after the above experiments and ordinary revaccination; for the modification wrought in the system during the course of a primary vaccination being supposed to be progressive, and the return of the system from a state of perfect protection to its original condition being known to be progressive, we should expect that a vaccination performed either when the modification had been arrested halfway, or when the modification had half passed off, would give rise to similar phenomena. It seems probable that not only complete removal of the vesicles, but also those conditions of the skin (such as eczema) which often cause considerable modification in the appearance of the vesicles, may be operative in arresting the modification of the system; and if this be so we should have an explanation of some of those cases in which small-pox has early followed vaccination, as well as a reason why with slight scars the protection against small-pox is not so great as when the scars are well marked, for a slight scar may very well be taken to indicate that the vesicle which gave rise to it did not attain its full development.

In the discussion which followed, the President, Dr. Buchanan, Sir Joseph Fayrer, and Dr. Squire took part.

Factory Hours of Labour in France.—Whilst in some of our manufacturing centres the reverting to the old number of hours (sixty) of work in our factories, as before the passing of the Factory Act of 1874, has lately been discussed, with the result of the adoption of a resolution in its favour, the Paris initiative committee for the consideration of a proposal to enforce a diminution of the hours of labour in factories from twelve to ten hours has decided in favour of the latter.

MEDICAL NEWS.

Apothecaries' Hall, London.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 12:—

Collinson, William, Rotherham.
Franklin, Jabez Austin, Bedford.
Gilkes, Malim D'Oyley, Leominster.
Lindeman, Sidney Herbert, Hammersmith.
Makeham, H. William Payne, Chelmsford.
Mumby, Bonner Harris, Gosport.

The following gentleman also on the same day passed his Primary Professional Examination:—

Oglesby, Joseph William, Leeds School of Medicine.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

Drewitt, F. D., M.A., M.B. Oxon.—Junior House-Surgeon to the Children's Hospital, Great Ormond-street, *vice* Gibbons, resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

India Office.—Surgeons-Major George Barnard, Joseph Ewart, M.D., and Charles Palmer, M.D., of the Bengal Army, to be Deputy Surgeons-General.

Militia Medical Department.—Surgeon-Major Henry Wilson Reed, M.D., of the Royal Berks Militia, resigns his commission.

BIRTHS.

Bastable.—On June 1, at St. Alban's View, Blackburn, the wife of J. B. L. Bastable, L.R.C.P. Edin., of a daughter.

Benham.—On June 12, at 22, Museum-street, Ipswich, the wife of Henry James Benham, M.D. Lond., prematurely, of a son, who only survived a few hours.

Buzzard.—On June 13, at 56, Grosvenor-street, the wife of Thomas Buzzard, M.D., of a son.

Collins.—On June 8, at East Grinstead, Sussex, the wife of C. E. Collins, L.R.C.P., M.R.C.S., of a daughter.

Fletcher.—On June 11, at the Vicarage, Ulceby, the wife of Wm. Bainbrigge Fletcher, M.R.C.S. Eng., Staff-Surgeon R.N., of a son.

Rossiter.—On June 11, at Cairo Lodge, Weston-super-Mare, the wife of George F. Rossiter, M.B., prematurely, of a son.

Stirling.—On June 15, at 60, Great Cumberland-place, Hyde-park, the wife of Edward C. Stirling, M.B., F.R.C.S., of a daughter.

MARRIAGES.

Alexander—Oldfield.—On June 10, at Ashill, Thomas A. Alexander, L.K.Q.C.P.I., of Walton, Norfolk, to Annie, youngest daughter of the late Henry Oldfield, Esq., of Aahill, Norfolk.

Anderson—Hickling.—On June 10, at St. Pancras Church, Charles Morton Anderson, M.R.C.S. Eng., to Annie Hickling.

Bird—Cornish.—On June 12, at Dartmouth, Geo. Gwynne Bird, M.R.C.S. Eng., of 72, Berners-street, W., to Eve, second daughter of the late Richard Newman Cornish, of Sherford, South Devon.

Farmer—Young.—On June 16, at Upper Norwood, Cottenham Farmer, M.R.C.S., L.R.C.P., of Hexham, Northumberland, to Helen Mary, fifth daughter of the late George Young, solicitor, of Saverley House, Staffordshire.

Gould—Roche.—On June 11, at Norwich, Harry Pearce Gould to Eliza Jane, daughter of John Roche, M.D., of Norwich.

Muskett—Pakeman.—On June 5, at West Hackney, Edwin Burrell Muskett, M.D., of Hope Town, Cape Colony, to Charlotte Eamonson Pakeman, eldest daughter of the late S. W. Pakeman, Esq., of Homerton.

Napier—Harper.—On June 11, at Southsea, Alexander Napier, M.D., of Crosshill, Glasgow, to Elizabeth, daughter of the late J. C. Harper, surgeon, of Rangoon and Moulmein, B.B.

Ware—Sankey.—On June 10, at Whittington Church, Gloucestershire, Douglas Powell Ware, B.A., assistant-curate of St. Mary's Episcopal Church, Glasgow, to Mary Octavia, only daughter of W. H. O. Sankey, M.D., of Sandywell Park, Gloucestershire.

Waters—Rotherham.—On June 10, at Liverpool, A. T. H. Waters, M.D., F.R.C.P., to Matilda, second daughter of the late Wm. Rotherham, Esq., of Liverpool.

DEATHS.

Andrews, John Andrews, M.D., Fleet Surgeon R.N. (retired), at Willow Bank, Titchfield, on June 7, aged 61.

Balfour, Marian Spottiswood, wife of John Hutton Balfour, M.D., Emeritus Professor of Botany in the University of Edinburgh, at Inverleith House, Edinburgh, on June 16.

Batho, Emily, wife of Surgeon-Major Robert Batho, M.R.C.S. Eng., A.M.D., at Netheravon, Wilts, on June 12, aged 31 years.

Bott, Charles Glen, M.R.C.S., L.S.A., very suddenly, at Skeldon, Berbice, British Guiana, on May 15, aged 40.

Clarke, P. J., L.R.C.S.I., Surgeon-Major A.M.D., at Dinapore, Bengal, on May 8.

Crawford, Adair, M.D., in Montague-street, Russell-square, on June 13, aged 68.

DE CAUX, FREDERICK, M.R.C.S. Eng., Surgeon A.M.D., in camp, at Chunga Munga, Punjaub, India, of cholera, on May 19, aged 25.

MIDDLETON, CATHERINE MARGARET, wife of Surgeon-Major J. Middleton, M.D., R.A., at Cawnpore, of typhoid fever, on April 22.

POGSON, MARGARET ANNE, wife of Samuel Pogson, and daughter of John Lycett, M.D., of Scarborough, at Anwick, Lincolnshire, on June 10.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CHILDREN'S HOSPITAL, BIRMINGHAM.—Assistant Non-resident Surgeon and Registrar. Candidates must be properly qualified. Applications, with testimonials and certificates, to the Medical Board, at once. The appointment will be for a period of four months, terminating on Oct. 31.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Assistant-Physician. Candidates must be graduates in medicine of some recognised university, and Members of the Royal College of Physicians, London, or must become so within twelve months of their appointment. Applications to the Secretary on or before July 8.

INFIRMARY OF THE CITY OF LONDON UNION, BOW-ROAD.—Assistant Medical Officer and Dispenser. Candidates must be legally qualified to practise both medicine and surgery in England and Wales; they must be single or widowers without children; not less than twenty-five nor more than thirty-five years of age. Applications on forms to be obtained at the office, 61, Bartholomew-close, E.C., with testimonials, to Frederick William Crane, Clerk to the Guardians, on or before July 1.

ROYAL ISLE OF WIGHT INFIRMARY, RYDE.—House-Surgeon. Candidates must be legally qualified. Applications, with testimonials, to the Secretary, not later than June 28.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, LOWER SEYMOUR-STREET, PORTMAN-SQUARE, W.—Physician, Out-Patient's Department. Candidates must be graduates of a British university, or, if graduates of a foreign university, Members of the Royal College of Physicians of England, duly registered, and not practising pharmacy. Applications, with testimonials, to the Secretary, on or before June 28.

SURREY DISPENSARY, GREAT DOVER-STREET, S.E.—Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of England, and registered; they must attend at the Dispensary on Tuesday, June 24, at 6 p.m., and produce their testimonials and other necessary qualifications.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Barnsley Union.—Mr. Stawman has resigned the Second District; area 5863; population 19,483; salary £70 per annum.

Droitwich Union.—Mr. T. Scoresby-Jackson has resigned the Claines District; area 10,349; population 8757; salary £93 15s. per annum.

King's Norton Union.—Mr. E. Potts has resigned the Edgbaston District; area 2790; population 17,442; salary £40 per annum.

Narberth Union.—Mr. E. H. Allen has resigned the Begelly District; population 5537.

Plomesgate Union.—Mr. C. B. Rendle has resigned the Saxmundham District; area 13,899; population 4006; salary £75 per annum.

APPOINTMENTS.

Bolton Union.—James Barr, L.R.C.P. Edin., L.R.C.S. Edin., L.A.H. Dub., as Assistant Resident Medical Officer at the Workhouse.

Bradfield Union.—Francis Bateman, B.M. Lond., L.R.C.P. Lond., M.R.C.S. Eng., to the Second District.

Williton Union.—Robert Pairman, M.D. and C.M. Univ. Edin., to the Stogursey District.

THE AMMONIACAL SULPHATE OF COPPER IN TIC DOULOUREUX.—Dr. Féréol, of the Lariboisière, has met with an amount of success in the use of this almost forgotten remedy in four cases of old and obstinate tic douloureux, that leads him to believe that it is one to which attention should again be drawn. He prefers the fluid form, as in the following mixture:—Distilled water, 100 grammes; syrup of orange or mint, 30 grammes; and ammoniacal sulphate, from 10 to 15 centigrammes. This is to be taken chiefly at meal-times, within the twenty-four hours. If the neuralgia persist, the dose may be gradually increased; and in one case as much as sixty grammes per diem was given, but then began to cause gastro-intestinal disturbance. Even in the ordinary dose, after two or three days, fœtid breath and a metallic taste may be perceived; but, in spite of this, the medicine must be continued at ten centigrammes per diem for twelve or fifteen days, especially at meal-times.—*Bull. de Thérap.*, April 30.

CALCULOUS ANURIA.—In addition to the cases which we have recently noticed (*Medical Times and Gazette*, March 22, page 326, and April 19, page 441), we may cite another published (*Union Méd.*, June 10) by Dr. Tenneson. A man, fifty-six years of age, entered the Lariboisière Hospital, not having passed any urine for ten days; otherwise he was perfectly well, and had had no nephritic colic or other sign of renal calculus. The bladder did not contain a drop of urine, but no signs of uræmia whatever were present. No signs of disease of the kidneys, liver, or other organs could be detected. After a prolonged bath he passed a thimbleful of turbid urine; and next day symptoms of uræmia set in, and he died fifteen days after the anuria had commenced; the only urine passed during the time being that just-mentioned. It was found at the autopsy that the right ureter was completely obstructed at its upper third by a small uric acid calculus, the size of a large elongated pea. Above the obstruction there was a little dilatation and some sanguinolent effusion. The left ureter was completely free, but lying free in one of the calyces was a calculus, two centimetres and a half in length and half a centimetre in thickness, and when either end of this was engaged in the ureter it caused obstruction. Probably this calculus had also occupied the ureter during life, and had been forced back into the calyx by the movements incidental to the autopsy. Dr. Tenneson supplies several bibliographical references and general conclusions concerning calculous anuria.

LIGATURE OF THE ISCHIATIC ARTERY.—M. Tillaux related, at the Société de Chirurgie, the case of a mason, aged twenty, who, having fallen from a scaffold, was brought to the Beaujon in a state of collapse. There was a fracture of the thigh, with a wound, which, however, did not seem to communicate with the fracture. During the first fortnight all seemed going on well, when a very painful swelling became developed behind the great trochanter. There was fluctuation, but neither pulsation nor *bruit-de-souffle* in the tumour; and, under the belief that it was a subcutaneous abscess, a vertical incision was made into it, which was followed by a formidable jet of blood. An aneurism being thus the cause of the tumefaction, a large horizontal incision was at once carried through the gluteus to the ischiatic notch, where the artery was found divided as it left the pelvis. A bony splinter, apparently proceeding from the edge of the sacrum, and to which the production of the false aneurism was doubtless due, could be felt. The artery was cut through close to the pelvis, and the hæmorrhage instantly arrested by a hæmostatic forceps applied to the central end. This was left *in situ* for forty-eight hours. The patient entirely recovered, *forcipressure* here having been of great service, seeing the difficulty of applying the ligature or torsion. M. Tillaux drew attention to the singularity that so large an aneurism should have remained twenty days without its existence having been suspected.—*Union Méd.*, May 20.

OBSTETRICAL CLINIC AT MOSCOW.—Dr. Wilmart, giving an account of a medical visit to Russia (*Presse Méd. Belge*, June 8), describes the obstetrical clinic of the University of Moscow as one of great excellence, while he regards the medical and surgical services as possessed of no originality, being mere copies of German institutes. The obstetrical clinic is placed in a building that is completely isolated in the middle of a vast court-yard. The patients are on the first floor in lofty apartments containing very few beds. Ample ventilation is provided for by special apparatus, and the antiseptic method is in constant use. There are neither *internes* nor midwives attached to it; but out of the hours of the clinic and the service it is placed under the physician on duty. There are two of these physicians, who have apartments suitable to the dignity of the profession, and are held in high consideration, with a very enviable remuneration. The teaching is eminently practical. Manual examinations, pelvimetry, the application of the forceps, and even turning, are all accessible to the frequenters of the clinic under the eye of the professor, Dr. Makeyeff, or his assistant. He never interferes with the progress of the cases, except in the way of demonstration, leaving all the rest to his assistant and the students. When labours are deficient he exercises his pupils on the phantom, and his mode of doing this is interesting. On a table fastened to the floor is solidly fixed an apparatus representing the pelvic and abdominal cavities of a woman in labour; across, about midway of the vertical diameter of the pelvis, a caoutchouc diaphragm is stretched, the orifice of which represents, as regards the thickness of its edges and its diameter, the os uteri dilated to its maximum or thereabout. The abdomen does not consist, like that in the ordinary phantom, of a cavity closed in front by a loose apron, but its anterior wall exactly resembles that of a lying-in woman in its arched form and rigidity. Behind, the pelvi-abdominal cavity is securely closed, but can be easily opened so that the fœtus may be placed in any desired

position. The pupil standing in front can have no idea of how it is placed. Moreover, the fœtus is not one of those frightful dolls as little like a fœtus as a mummy is like a living model. A full-timed fœtus, which has been preserved in glycerine, is employed, the various parts of which can as readily be distinguished as in the living fœtus, and the forceps may be applied to a head of real flesh and bone. On trial, the illusion is found to be complete. This forms an admirable substitute when cases are deficient, but is never otherwise employed. Prof. Makeyeff was three years in Simpson's clinic, and is an enthusiastic admirer of that great teacher. He says that he was able to glean at the clinics of Vienna, Bologna, Berlin, Paris, and Brussels, but it was at Edinburgh only that he could reap as great a harvest as he desired.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

S. M'A.—The case is one for medical advice. Let your friend select some, not young, hospital physician, and confide in him.

The Corkscrew.—Our able contemporary, the *Pharmaceutical Journal*, for June 7, contains an interesting article on "Cork, Corks, and Corkscrews," in which the writer tells us that that useful instrument, the corkscrew, came into use about the beginning of last century, and for many years was known as the "bottle-screw." The name of the inventor does not appear to have been handed down by fame; but a collection of poems by Nicholas Amhurst, published in 1723, contains an amusing poem, entitled "The Tale of the Bottle-Screw." The poet, we are told, gives "the legendary origin of the invention. Bacchus is introduced," and among other things it is said of him—

> "This hand a corkscrew did contain,
> And that a bottle of champagne."

Yet the bottle screw at that time appears to have been the common name of the article, for the poet concludes his tale with—

> "By me shall Birmingham become
> In future days more famed than Rome;
> Shall owe to me her reputation,
> And serve with bottle-screws the nation."

THE CASE OF THOMAS MILLERCHIP.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged by your inserting the accompanying letters and list of subscriptions in reference to this case:—

"5, Henrietta-street, Cavendish-square, June 16, 1879.

"My dear Sir,—I enclose a cheque for three guineas towards the fund being raised for Mr. Millerchip by yourself, and have no doubt the profession will acknowledge the justice of, and respond to, the appeal you have made. With every wish for its success, "Very faithfully yours,

"Dr. Rogers." "WM. ADAMS.

"Littlepost, Ely, Cambs, June 14, 1879.

"Dear Dr. Rogers,—I have much pleasure in enclosing you a cheque for £1 1s. as a small contribution to the Millerchip fund. This gentleman, I think, must have the sympathy of the whole profession, as the verdict returned against him in his condition was not only cruel, but without sense or reason. The history of the patient who died would likely be what we meet with very often, one of eight or a dozen in a family unattended, unfed, and unclothed, and the parents wanted a medical man to be present before the child died and was got rid of, so that they would have no difficulty at the burial, being provided with a certificate.

"Yours very truly, "W. B. HUNTER."

	£	s.	d.
Messrs. Manby and Manby, East Redham, Suffolk ...	1	1	0
Mr. H. Steer, Saffron Walden, Essex	1	1	0
Wm. Berry, Esq., M.D., Wigan	0	10	6
Sympathising M.P.	0	10	0
Mr. Hunter's Assistant	0	5	0

33, Dean-street, Soho, June 18. I am, &c., JOSEPH ROGERS.

Temperance Advocates: a Hint.—The pernicious practice of obliging workmen to attend at a public-house for the settlement of their wages appears to be still the custom in a great many trades. Strenuous efforts to crush this old and evil custom seem to be required, and should be undertaken by all well-wishers to the cause of sobriety, especially by the active advocates of "temperance." It can hardly be expected that the workman will, under such circumstances, have the moral courage to resist taking his share of the drink called for; and should he successfully withstand this temptation, he probably could not escape from, or refuse compliance with, the subsequent scarcely less arbitrary demand upon him—namely, paying his proportion of the expense of the liquor drunk.

Hansom Cabs and Street Accidents.—The Bill now in Committee in the House of Lords for the better regulation of omnibuses and cabs, it may be hoped, will deal with the putting of luggage on the roof of hansom cabs. In consequence of a large trunk being placed in front of the driver of a hansom cab, who was unable to see what was ahead or to guide his horse, an accident occurred a few days since, by which a boy was run over, although, fortunately, not seriously hurt. The practice of thus piling luggage on these cabs is, no doubt, an imminent cause of accidents, and should be prohibited.

Dutch Butters.—From a report of the Government of Holland, lately issued, with reference to the Dutch dairy produce, we find that in 1878, of the exports of butter consigned to England, there was no less a quantity than 23,721,000 kilogrammes (2¼ lbs.). Of these butters more than half was "bosch" or artificial, but was passed by the Dutch, and also by our own Board of Trade, as butter. This artificial butter having the sanction of the latter, it ought to be designated "bosch"—what it really is. It is exported as such, and sold on the quay as that article, albeit we have no official statement whatever of this trade. Recently, out of 30,000 packages of continental butters delivered in this country, no less than 16,000 were artificial. If our Government authorities recognise trading in artificial butter as lawful, and pass "bosch" as butter, the small provision dealers have, apparently, cause to complain of prosecutions against them for vending that substance or material as butter.

Mr. Williams.—The printed document forwarded to us with the initials "J. H. C. 1849" was privately circulated in that year by the John Hunter Club. The leading articles in the *Medical Times and Gazette* headed "The John Hunter Club and Collegiate Elections" were written by a gentleman still a member of our staff.

Navvies as Liquor Retailers.—Eight navvies were recently fined £12 10s. each, at Uppermill for having sold intoxicating liquor without having a licence. They were employed at the Greenfield Reservoir works, and appear to have carried on a good business in drink till their stock-in-trade was seized by the police.

Opium and Beer.—The increased sale of opium to the labouring classes, the alleged cause for which was stated to be chiefly the earlier closing of public-houses, is, it seems, a theory which will not bear the test of investigation. The district supposed to be the centre of this increased demand, that lying around Mold and Wrexham, is found, at least, to be exempt from the allegation. It is true there has been a much larger sale for the past year or two of opiates, and that the demand has principally been on Saturday nights. But inquiry again shows that the purchasers of the drug are not, as a rule, those to whom the earlier closing of public-houses would be the cause of depriving them of their quantity of beer. On the contrary, it is bought to mitigate rheumatic pains, to be administered as a soothing medicine to children, and some habitually take the drug as an intoxicant. No doubt its consumption as a tranquillising remedy is increasing, notably for children, given by parents ignorant of its injurious and dangerous effects. The imposition of more stringent regulations in regard to vending opiates is necessary; they should be provided and be imperative.

A Small-pox Patient collecting a Crowd around him.—Dr. Dudfield, Medical Officer of Health for Kensington, in his report ending the 24th ult., states that his attention was called to a case of small-pox which ended fatally, and which is a striking instance of how the disease may be spread. The sufferer was a waiter, and the father of seven children, his wife keeping a registry office for servants. Late in the evening of the 20th ult., Dr. Dudfield was informed that the patient had escaped from his house in a state of delirium, and around whom, by his strange conduct, a considerable crowd of persons collected. Immediate steps were taken to find him, and ultimately he was removed, between ten and eleven at night, to the hospital, having been found near the workhouse. Dr. Dudfield remarks—"It is impossible to say how much mischief the man may have done during his wandering." But in a postscript to the report he adds, "It has transpired that the poor man took a cab in the Gloucester-road, between nine and ten, to Devonshire-terrace, called on a friend, and was full of delusions. After a few minutes' stay, the people of the house persuaded him to go to the workhouse opposite, from which, as already stated, he was removed to the hospital. Since, the wife of the person in Devonshire-terrace, on whom the man called, has been taken to the hospital suffering from small-pox. One of his own children had been removed on the previous day." Dr. Dudfield, in conclusion, remarks that a man called on the deceased about thirteen days prior to the commencement of the illness, and stated that he had been ill of small-pox; in fact, he was ill at the time, and infected the deceased. Dr. Dudfield has not been able to obtain this man's address, but should he do so, and if the facts can be substantiated, he thinks he ought to be prosecuted under Section 38 of the Sanitary Act, 1866, as an example.

"Poisoned by Misadventure."—The frequency of these cases lately, and the circumstances under which they have occurred, deserve more notice than they have obtained. A girl, seven weeks old, has been "poisoned by misadventure" at Bolton. She was dosed with a mixture containing opium, by a girl aged sixteen, in whose charge the mother had left the infant while she took a "cheap trip" to Liverpool. During the absence of the mother the infant became cross, and the girl administered half a spoonful of the mixture because she knew that it was "a good thing for curing cross children." The infant's mother, a factory operative, had bought a pennyworth of the mixture from a woman, a small shopkeeper, who recommended it for cross children, and she had given the infant half a spoonful of it a day or two previously. The shopkeeper told the coroner that her family had made and sold the mixture for fifty years, and there had never been any complaint about it before. The jury added to their verdict—"Poisoned by misadventure"—a hope that the police authorities would prosecute the shopkeeper.

The Protestant Deaconesses' Institution and Training Hospital, Tottenham.—The eleventh annual report of this Institution states that the number of sisters had increased, and their training had been carried on in their own Hospital, as heretofore; and the variety of cases which the Hospital had taken in had given the sisters ample opportunity to fit themselves for their calling. During the past year twenty-two of the sisters had been stationed at the parent house, eleven at Sunderland, two at the union workhouse at Cork, and two in the cottage hospital at Enfield. Private families had also had their aid. The House-Surgeon's report showed that of 7245 patients who had applied for relief during the year 407 were treated as in-patients, and there were at present thirty-three patients remaining in the house. In the children's ward, forty-eight children had been successfully nursed. The wards continued to be remarkably healthy, and not a single case of pyæmia or of erysipelas had occurred during the year. As to the financial position of the Institution, we regret to say there was a debt due to the bankers of £1200.

COMMUNICATIONS have been received from—

Mr. B. W. Parker, London; Mr. John Chatto, London; Mr. D. Colquhoun, London; Dr. G. E. Herman, London; Mr. Furneaux Jordan, Birmingham; Dr. J. S. Bristowe, London; Dr. Norman Chevers, London; Mr. T. M. Stone, London; Dr. Byrom Bramwell, Edinburgh; Mr. Jonathan Hutchinson, London; Dr. Brinsley Nicholson, London; Mr. Shirley Murphy, London; The Registrar of Apothecaries' Hall, London; Mr. W. J. Gordon, London; Dr. A. E. Sansom, London; Mr. E. L. Hussey, Oxford; Mr. G. Cowell, London; Mr. George Rigden, Canterbury; Registrar-General, Edinburgh; Dr. John Williams, London; Mr. T. D. Acland, London; Dr. Joseph Rogers, London; Mr. W. H. Crowther, Liverpool; Mr. S. M'Allister, London; The Secretary of the Society of Arts, London.

BOOKS AND PAMPHLETS RECEIVED—

W. R. Gowers, M.D., F.R.C.P., A Manual and Atlas of Medical Ophthalmoscopy—Dr. A. Sichel Fils, Traité Elémentaire d'Ophthalmologie: vol. i., Maladies du Globe Oculaire—J. Milner Fothergill, M.D., The Heart and its Diseases, with their Treatment—Alfred Lewis Galabin, M.A., M.D., F.R.C.P., The Student's Guide to the Diseases of Women—Rev. George Henslow, M.A., F.L.S., F.G.S., Floral Dissections illustrative of Typical Genera of the British Natural Orders—John Tyndall, F.R.S., Fragments of Science: a Series of Detached Essays, Addresses, and Reviews—Jonathan Hutchinson, F.R.C.S., Lectures on Clinical Surgery, vol. i., part ii.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—Boston Journal of Chemistry—Dublin Journal of Medical Science—Guy's Hospital Gazette—Giornale Internazionale delle Scienze Mediche—Archives of Medicine—Revue d'Hygiène—Hospital Gazette (New York)—New York Medical Journal—Narcotism—Neurological Contributions—Canada Lancet—Canadian Journal of Medical Science.

APPOINTMENTS FOR THE WEEK.

June 21. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

23. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Prof. Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

24. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

25. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

26. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

27. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

Queckett Microscopical Club (University College), 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 14, 1879.

BIRTHS.

Births of Boys, 1238; Girls, 1176; Total, 2414.
Average of 10 corresponding years 1869-78, 2147·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	721	630	1351
Average of the ten years 1869-78	654·0	609·2	1263·2
Average corrected to increased population ...	...	...	1352
Deaths of people aged 80 and upwards ...	...	...	42

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	9	9	4	1	7	...	...	...	2
North ...	751729	1	25	6	3	12	...	1	...	7
Central ...	334369	...	9	4	...	1	...	...	...	1
East	639111	..	26	6	3	10	1	4	...	2
South	967692	1	30	16	3	12	...	4	2	6
Total	3254260	11	99	36	10	42	1	9	2	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·784 in.
Mean temperature	57·2°
Highest point of thermometer	72·7°
Lowest point of thermometer	47·0°
Mean dew-point temperature	51·2°
General direction of wind	S.W.
Whole amount of rain in the week	0·32 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 14, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending June 14.	Deaths Registered during the week ending June 14.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2414	1351	72·7	47·0	57·3	14·05	0·32	0·81
Brighton	105608	44·9	76	43	68·1	48·4	57·2	14·00	0·55	1·40
Portsmouth ...	131821	29·4	94	38	...	...	...	...	...	...
Norwich	85222	11·4	61	31	69·0	48·0	57·1	13·95	0·36	0·91
Plymouth	74293	53·3	47	22	64·0	50·0	54·6	12·56	0·84	2·13
Bristol	209947	47·2	143	52	69·4	46·0	56·5	13·61	1·33	3·38
Wolverhampton ...	75100	22·1	51	26	67·0	45·5	54·6	12·56	1·12	2·84
Birmingham ...	388884	46·3	267	135	...	...	...	...	...	...
Leicester	125622	39·3	101	38	70·5	46·5	57·0	13·89	0·91	2·31
Nottingham ...	169896	17·0	126	70	74·3	48·2	57·4	14·11	1·61	4·09
Liverpool	538338	103·3	403	235	68·2	47·6	55·9	13·28	1·33	3·38
Manchester ...	361819	84·3	280	168	...	...	...	...	...	...
Salford	177849	34·4	142	64	...	...	...	...	...	...
Oldham	111318	23·9	71	35	...	...	...	...	...	...
Bradford	191046	26·5	135	78	66·6	47·8	54·4	12·44	2·44	6·20
Leeds	311860	14·5	230	116	68·0	47·0	55·0	12·78	1·99	5·05
Sheffield	297138	15·1	213	114	70·0	44·0	56·3	13·50	1·23	3·12
Hull	146347	40·3	108	33	71·0	45·0	55·3	12·95	0·88	2·24
Sunderland ...	114575	41·4	94	48	66·0	47·0	53·7	12·06	1·82	4·62
Newcastle-on-Tyne	146948	27·4	99	84	...	...	...	...	...	...
Edinburgh	228075	53·9	145	95	64·0	44·0	51·4	10·78	0·54	1·37
Glasgow	578158	95·8	387	210	70·0	45·3	55·5	13·06	1·73	4·39
Dublin	314666	31·3	203	246	70·5	39·5	56·5	13·61	0·37	0·94
Total of 23 Towns in United Kingdom	8502896	38·6	5892	3332	74·3	39·5	55·6	13·12	1·14	2·90

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·78 in. The lowest reading was 29·42 in. at the beginning of the week, and the highest 29·99 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

THE HARVEIAN ORATION.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS, *June* 26, 1879.

By SAMUEL WILKS, M.D., F.R.S.,
Physician to, and Lecturer on Medicine at, Guy's Hospital.

MR. PRESIDENT AND FELLOWS,—We meet here to-day to commemorate the name of Harvey. It is fortunate that the College has prescribed no rules and framed no restrictions as to the mode in which we celebrate this anniversary, but that its Fellows are left to refreshen his memory from springs of every source, hoping thereby to derive some new inspiration from the contemplation, during a few minutes of the year, of one whom they may almost call their founder. Each Fellow may, therefore, in turn, endeavour to expound his theme in the manner which is most befitting his own powers and inclinations. Thus, at one time, we have pourtrayed before us the personal history and living picture of Harvey; at another, an exposition of his great discovery; and at another time, as at our last anniversary, we have a discourse by one of the most distinguished physiologists of our College, showing the relation of his discovery to the knowledge of the period and to that which succeeded it. I dare not attempt to improve on these well-exhausted themes, but falling back on the object which Harvey had in view, in wishing to perpetuate the remembrance of this day, I find that I have a text sufficient for me. I need not remind you what his object was, since Harvey's injunction to the College is ever before us, "to study and search out the secrets of nature by way of experiment." Let this, then, be my theme—That we members of this College, practising physicians like himself, should occupy ourselves with the investigation of nature. Harvey could not have had in contemplation all departments of natural history, but only those which pertained to man or, as we may say, animal life. His wish was, that his followers should continue in the path which he had indicated, and that they should remember that one of their duties was the acquisition of further physiological knowledge. I ask, have his precepts been followed and his hopes been fulfilled? The answer is before us. We need but look through the long roll of our College, lately published by our learned librarian, to find it. In that goodly list will be seen the record of the work performed by our members, some of which may bear comparison with that of the master himself. Much, of course, may be regarded as a mere drop in the great ocean of knowledge; some, however, of the work contains great and elementary truths, which eclipse all beside them—fundamental truths which immediately swallow up, or form a culmination to, the teaching of centuries, and cause mankind to take one long stride in the path of knowledge. Although it may be true that this great edifice of science, which is slowly growing up before us, is one on which comparatively few Englishmen have laboured; yet they have been skilled workmen, and have laid some of the weightiest of its foundation-stones. Amongst these is Harvey, whose pedestal may be placed by the side of that of Newton, a man whom we justly regard as the father of English scientific philosophy. I need not allude to Jenner, and other well-known names on our list; but cannot refrain from speaking of Marshall Hall and his great discovery, which may in the future be ranked in importance equal to that of Harvey's. His, like Harvey's, was not the discovery merely of an isolated fact, but the full disclosure of the mysteries of the nervous system which had hitherto been unrevealed to us. His discovery had, as has been lately declared, the character of a first, essential, and fundamental principle.

Does not this contemplation of Harvey—instigating us to further discoveries in the animal organisation, accompanied by the thought of the glorious results which have followed his instructions—inspire us with loftier notions as to the nature of our calling? What means the existence of this College, and what is the function of its members? It were a trite and easy answer to declare our final aim to be the alleviation of the woes of our fellow-creatures; and certainly this is all the public voice demands. But Harvey declares this end cannot be obtained without knowledge; and, therefore, one of our duties is to seek out the secrets of nature. Now, how is this to be accomplished? It may be done by direct experiment, or by other means—with which I have little doubt Harvey was acquainted; that is, by making use of the experiments performed by Nature herself in the various maladies which daily come before us, and by taking advantage of these vast opportunities of thus unlocking her secrets. Indeed, a large part of physiological discovery has been made, and must be made, by the practising physician. Herein lies the scientific aspect of the medical profession which can never be understood by the outer world. We are necessary to the public for one object only—to treat and alleviate human suffering; that is the beginning and the end of medicine in their eyes. An opportunity has lately occurred by which we have been enabled to ascertain the opinion of the public as to the office of the medical practitioner. In their advocacy of the fitness of women for our profession we have heard the voices of eminent statesmen, of bishops, and even of the judges of the land, and they all agree in the sentiment expressed by one of the most distinguished members of their several bodies, that as regards the administration of medicine, the hand of woman is much more fitted than the hand of man. Beyond this sentimental conception of the medical profession, no shadow of a thought seems to have crossed their minds that the administration of drugs was not the physician's supremest aim. Let us, therefore, who take a larger view of our calling, express a hope that the other sex, when they have entered the portals of the profession, will rise out of the narrow sphere to which their best friends have consigned them, and by the display of a superior intelligence convince a wise legislature, which has seen fit to grant them the privilege of practising medicine, of their capability of also giving a vote in the election of their supporters in Parliament.

Harvey says that we must always be acquiring knowledge, and surely the medical man, with his fellow-creatures before him presenting various states of organic and functional derangement, has problems relating to the working of the complex machinery of the human body ever awaiting his solution. He, rather than any other member of the community, can appropriate to himself the words of the Latin poet—

"Humani nihil a me alienum puto."

It is true that a knowledge of the structure and functions of the human body ought to precede that of its derangements, and, as a matter of instruction and discipline, we so place it; but in our present state of comparative ignorance the two kinds must be pursued together, for the very derangement of parts gives a clue to their uses. I say the daily task of the physician is one of physiological investigation, as well as the treatment of disease; for while affording relief to the sufferer who has sought his aid, he yet makes use of the opportunity to watch the effects of the quickened revolution of the wheels, of the stiffened valves, or the changes in the fluids which are circulating through the tubes of the animal machinery. I remember some years ago a meeting of physiologists was called, I believe in Germany, to discuss the propriety of altogether divorcing their subject from medicine, but it was found that the attempt was impossible, for though it be true that physiology may be studied apart from any connexion with our medical art, yet the chief of all animals, man, in whom the greatest scientific interest centres, is so prominently placed in his disordered states before the physician, that the experience of the latter cannot but assist in the work of the physiologist. Moreover, in the application of his art, in the use of drugs, many interesting and important facts are acquired bearing on the function of the organism. Just as the pure physiologist makes experiments in his laboratory in order to discover the function of some portion of the animal economy, so the physician has ever placed before him similar experiments made by accident or

disease. I should be sorry to be obliged to venture an opinion as to whether the physiologist has more assisted the physician, or the physician the physiologist, in the elucidation of many obscure phenomena observed in the human subject.

Everyone who is pursuing his professional avocations in a scientific spirit knows how large a part of the questions which he is obliged to discuss, and often unwillingly, are physiological. For example, a person is seized with paralysis of a certain kind, and we immediately ask ourselves where is the seat of the lesion. Now, if the physiologist had prepared the way, we should long have left these questions behind us, and confined ourselves solely to the nature of the disease and its treatment; at present, however, we are assisting in his work. If the case be one of so ordinary a complaint as jaundice, our inquiry has not only reference to the disease, but to the causes which have made bile appear in the blood—a question only to be decided by a knowledge of the functions of the liver. So in diabetes and many other diseases the questions mainly discussed by the teacher before his class are purely physiological ones; and this discussion bears its fruits. Witness, for example, the amount of knowledge obtained by ourselves relating to the functions of the nervous system: such as the varieties of sensation, as of touch, pain, heat, and cold, together with the time of transmission of sensations, and many other phenomena associated with disease of the spinal cord; which could scarcely have been known had not the facts been observed in the human subject. Our actual acquaintance with the functions of the nervous system, as gained in the physiological laboratory, is small compared with what may be learned in the wards of a hospital. Could we gain any approach to an insight into the remarkable properties of the nervous system, had we merely laboratory experiments to guide us, and had we never seen the vagaries of hysteria? An acquaintance with simple physiological laws, derived from observation in animals and healthy men, gives us no clue to some of the most remarkable phenomena we witness in women. It is from the latter we get an insight into the complexity of nervous functions, and therefore to assume that the standard of these functions is to be made in the laboratory, and all beside considered abnormal, is to shut the light from our eyes. With the exception of the experiments of Waller and Bouchard, little had, until quite lately, been taught the student beyond the notion that afferent and efferent nerves were so many telegraphic wires proceeding to and from the centres; but when he enters the wards of a hospital and witnesses cases of disease, and sees the muscles becoming atrophied, when one nerve is destroyed and the skin undergoing changes, when another nerve is irritated, he discovers that these cords have other functions; he ceases to regard them as mere conducting-wires, but rather as conveying a distinct nutritive influence over the body, and sees with the mind's eye a perpetual stream of energy coursing through the system, or alternately ebbing and flowing in hysteria and other similar nervous disorders.

Then, again, some of our members are engaged in the important department of mental alienation, a department necessitating the study of the mind in its widest range. Here, again, the advantages of the physician over every other member of the community are immense. He has opportunities of observation which the pure mental philosopher can never possess. Looking at the brain as the material organ of the mind, and taking into consideration its intimate relation with the working of every part of the body, it seems impossible that the philosopher by sitting in his study and noting the faculties and powers of his own intelligence, can do more than propound doctrines of pure metaphysics; he cannot, except by a physiological study of other beings, and even animals, form a scheme of psychology or interpret a tithe of the actions of men and women in everyday life. This might be exemplified in innumerable ways. Thus the discoveries by physiologists and by practising physicians, Fellows of this College, while demonstrating the intimate relation between the convolutions of the brain and the muscular system, prove also the close alliance between psychic states and muscular movements. This may be illustrated in various ways, but perhaps we cannot do better than go to the stage for a confirmation of the doctrine. There we see not only the actor placing himself in attitudes corresponding to the state of feeling he wishes to express; but, as some of the most famous performers assure us, the very posture which they assume, suggestive of some passion of the mind, will cause the latter to grow into a reality until laughter may be excited or tears flow which are absolutely genuine in their origin. Many a practical lesson may be learnt from this physiological fact. A desponding man stooping forward in his chair may be made cheerful in spite of himself by a brisk walk with expanded chest.

With regard to the subject of language, too, I am bold enough to think that its study from cases of disease of the brain by our members has thrown more light upon its nature than the disquisitions of the pure mental philosopher. If, therefore, our College treats, as it necessarily must, the question of mental alienation, its members devoted to this branch of medicine may include in their sphere of inquiry the whole range of psychology.

If any further corroboration were required to prove the value of observing cases of disease in aid of physiology, let me remind you that such men as Darwin and Huxley have not hesitated to make use of our knowledge in order to further unfold their doctrines. The late Croonian lectures also, given here by Dr. Stone, on the causes producing various pathological states, were explanatory too of physiological laws. I do not, therefore, regard Harvey, although his name is immortalised by a discovery purely physiological, as standing apart from the Fellows of his College except in his superior excellence. I would rather regard him as the King's physician assisting in the advancement of knowledge and unravelling the problems of nature. It is from this point of view that it is of more interest to me to regard our great master and teacher. His work thus comes home to us and binds us closer together in one fraternity. This view also tends to elevate us as a profession, and, to my thinking, places us in one of the most exalted positions that man can hold. If our vocation leads us to the study of our fellow-creatures, in both their bodily and mental capacity, what higher functions can we discharge. Others in the State may frame laws which govern the people in their social and political relations, but beneath all these lies the individual man, with his instincts, his pleasures, and his pursuits, having their basis in his material nature, a knowledge of which can be possessed by the medical man or physiologist only, and upon which all social regulations must depend.

I hope I have not uttered a disparaging word against the study of pure physiology, for I would not for a moment deny the advantages or necessity of the pursuit. I have rather wished to express my opinion as to the duties of the physician in not overlooking his opportunities in promoting its advancement. I am quite aware that the mere contemplation of man, the paragon of animals, can never reveal to us the intricacies of his mechanism, or give us the interpretation of his mental faculties. The problems before us are far too complex and abstruse to be solved without first surmounting the various steps in the process. We must go back in animal life, and even to the lowest forms of vegetable life, before we can get a clue to the higher of nature's processes; we cannot even stop here, for it requires a knowledge of the ordinary laws of physics to understand many of the phenomena of the human body. Whether we look at the human frame as a whole, or limit our attention to particular portions of it, these truths are manifest. The very first fact which strikes us is that the body is made up of two halves, that is, that the body is double, implying necessarily that the nerve-centres are double, and all the senses double. We may perceive in this fact a wonderful adaptation of means to ends, and how a knowledge of space in its three dimensions is gained, not only by our possession of two arms, but by our two eyes, and by our two ears. We can see at once the advantage of this duality, but we hesitate to stop at a teleological cause when we find a similar dual arrangement even in senseless objects, and are forced to recognise another law of nature—that of form. Morphological doctrines require us to regard the whole of Nature's arrangements; and so, in this very question of duality, many a person before and since the time of Abraham Cowley must have been struck with the very close resemblance between the human head and many fruits, especially the walnut. Cowley had a smattering of anatomy, besides being a poet, and describes how the nut has a soft covering or integument, then a hard shell or bone, lining which is a thick membrane or dura mater, followed by a thin skin or pia mater, covering the convoluted seed itself, which is made up of two halves, held together by a commissure. This very first fact in the

formation of the human body—its dual character, on which so many of its functions depend, and the use of which is apparently so obvious—cannot be discussed solely in reference to final causes, seeing we find its counterpart in the fruits of the trees; and even in the less developed leguminous pod formed by the folding of a leaf. Nature thus closely unites man with the grass of the field.

"Nothing stands alone;
The chain holds on, and where it ends unknown."

But we do not stop with the organic world in our search after an explanation of some of the characteristics of our framework, since mechanical laws cannot be unheeded. In looking at the packing of the brain in the skull, or of the intestines in the abdomen, can it be doubted that these laws are in operation, or that James Hinton was right when he maintained that in the production of the spiral, noticeable in the heart and other organs, we have an example of the more complex laws of least resistance? The more, indeed, we study any subject in nature, the less isolated do we find it; so that all our "ologies" appear but the expressions of human weakness, and we are forced to declare that all nature is one.

"From nature's chain whatever link you strike,
Tenth or ten thousandth breaks the chain alike."

We look at the earth's crust and we perceive that it has been gradually formed, layer by layer, and, judging by the present rate of progress, that this has been in process for countless ages. We see remains of animals, now extinct, in the earlier formations, and others nearer the surface, which had no existence in the lower depths. In the history of man himself we observe the same progression, and whether we take his propensities, passions, or mental faculties, we see the same law in operation. It may be language or any other of his attributes which we are studying, but it forms only one link in the great chain of phenomena, proving that our earth is going onward in the course of development. From any point of view we take, and upon whatever subject we fix our gaze, we come to the conclusion that the greatest discovery ever made by man about himself, and of the earth, of which he forms a part, is the doctrine of evolution.

"The softest dimple in a baby's smile
Springs from the whole of past eternity,
Tasked all the sum of things to bring it there." (a)

To those who refuse to look intelligently around them everything is stationary, things are now as they ever were, and they choose to think that this view is necessary to a religious frame of mind; but the idea of development and progress is far grander and more sublime; it is felt by the thoughtful to be true and stamped upon our very nature. Coleridge, the Christian, the philosopher, and poet, possessing one of the profoundest minds that England has ever seen, with a wide grasp of Nature in all her forms, had a glimpse of what now is erected into a science of evolution and morphology. He says, "Every rank of creatures as it ascends in the scale of creation leaves death behind it or under it. The metal at its height of being seems a mute prophecy of the coming vegetation, into a mimic resemblance of which it crystallises. The blossom and flower, the acme of vegetable life, divides into corresponding organs with reciprocal functions, and by instinctive motions and approximations seems impatient of that fixure by which it is differenced in kind from the flower-shaped Psyche that flutters with free wing above it. Thus all lower natures find their highest good in semblances and seekings of that which is higher and better. All things strive to ascend, and ascend in their striving, and shall man alone stop?" In this, which was written half a century ago, lies a vast and grand conception of the world and of man, its inhabitant, not only appealing to the scientific investigator, but to the moralist, the philosopher, and the Christian. It implies that the world is not made, but is being made, that all things are tending to the higher and better, that inferior and hateful things are left behind, and that for man himself there may yet be a continuous and higher development in another sphere.

Now, in seeking to gain a further insight into nature, we can pursue no better course than that which Harvey trod; for after a careful perusal of his works, we are constrained to see, in every page, that he was guided by the true scientific instinct. His injunction to the members of the College was to study and search out the secrets of nature by way of experiment. He clearly did not use the latter term in its more ordinary signification, but by way of experiment, he meant by way of facts, instead of by the way of fancy, for he says, "It were disgraceful, with this most spacious and admirable realm of nature before us, and where the reward ever exceeds the promise, did we take the reports of others upon trust, and go on coining crude problems out of these, and on them hanging knotty and captious and petty disputations. Nature herself is to be addressed." One might have thought that this maxim had been written with the pen of Bacon, but it does not appear that Harvey ever read Bacon's works, and, indeed, it seems nearly certain that his great discovery was made, although not published to the world, before the "Novum Organum" was written. It is clear that Harvey learned nothing from Bacon, and this has lead to the belief amongst some persons that he could not have adopted the Baconian method of inquiry, but that Harvey made his discovery by a simple deductive or *à priori* mode of reasoning, suggested by the presence of valves in the veins, already shown by Fabricius. No one who has read Harvey's works, and especially such a sentence as I have quoted as to the true method of research, could possibly have accepted this statement, for few better pieces of investigation are to be found in the whole annals of scientific discovery than his. He opened the pericardium; he observed the heart's movements; he cut into the organ, and saw it squeeze the blood out; he then opened the arteries into which he believed the blood to pass, and witnessed the crimson stream ejected. He proposed to himself experiment after experiment, until he had solved the problem of the circulation. No theoretic argument was his, who had dissected every animal within his reach; for reptiles, fishes, insects, were alike familiar to him. His powers of observation are also seen by his not forgetting to make use of cases in the human subject, for in an example of aneurism of the subclavian artery he noticed the different sizes of the corresponding pulses of the wrists. Besides, he himself knew what a deduction was as opposed to the method he had been pursuing, for he declared that, if his discovery were true, then certain other truths might be deduced from it. He says: "These truths, if proven, are not without their use in exciting belief, as it were, *à posteriori*"; and infers, for example, that if venous blood flows, as he supposed, from the circumference of the body to the centre, it would carry poison, like that of hydrophobia, the lues venerea, and the like. And "Finally," says Harvey, "reflecting on every part of medicine, physiology, pathology, semeiotics, therapeutics; when I see how many questions can be answered, how many doubts resolved, how much obscurity illustrated, by the truth we have declared, I see a field of vast extent before me." And, we might add, a very fruitful field it has been.

How, then, can it be that Harvey's discovery arose out of a mere consideration of the uses of valves, when he himself applied the deductive method to his own doctrines derived from an altogether different process of inquiry? Harvey's was the true scientific method, as adopted by Jenner and all other illustrious discoverers of our College; and indeed there is but one method. It may be a subject of great interest to philosophers and logicians to discuss the modes by which great results in natural philosophy are obtained; and therefore it is not surprising that the method employed by Harvey should have undergone this strict investigation, seeing it was brought into use at the very epoch of Bacon. Bacon's work seems to have been to assist his fellow-creatures in throwing off the yoke which they had borne for so many centuries. His daring to put aside Plato and Aristotle, and to direct others to investigate and think for themselves, constituted him a man of power; but whether he put them in the best way of discovery is another question which has long been discussed. Those who have chosen to call Bacon's inductive method equivalent to a collocation of facts, are pleased to quote Harvey's discovery as an illustration of what a very opposite method will effect; but their reasonings and their facts are altogether erroneous. In various parts of Bacon's writings there are a sufficient number of scientific allusions to prove that the author knew the difference between a theory and a mere collocation of facts; and as regards Harvey, his method was of the purest inductive kind. I cannot but think that those philosophers who have discussed the different methods of induction and deduction, and which of them leads to the most fruitful results, have themselves been deficient in true scientific instinct; and, on

(a) Poems by Miss J. S. Bevington.

the other hand, we know that our greatest scientific men, from Harvey downwards, had little technical acquaintance with the methods they were practising. I should say that most discoverers, indeed, were totally unacquainted with philosophic terms, or at least in their writings no allusion is made to the methods employed. Amongst our own friends engaged in researches one seldom hears philosophy discussed; and indeed where such terms as inductive or deductive appear prominently in their pages, I have myself remarked that there is little hope of gleaning a scientific fact.

It is generally supposed that Newton never read Bacon's writings, but what a perfect model was he of the scientific man! What could be more splendid than for his great induction to bear such fruits as the discovery of the planet Neptune by a necessary deduction? Look at those amongst ourselves who are adding to our knowledge, and, where we have an opportunity of watching their manner of working, we shall perceive that they are not consciously pursuing any method, and will declare that they have never read a line of Bacon, of Mill, or of any other philosophic writer. Whether the inquiry be physiological, chemical, or physical, the method is one. So far from their being able to say whether the inductive or deductive process is the better, they are employing both. The scientific inquirer looks at some phenomenon in nature, and asks himself its meaning. The fact to which his attention is directed is one which millions have passed by unobserved, or have regarded it, if known, as too trivial or commonplace to be worthy of notice; it is this exceptional acumen which probably constitutes his special power or genius. He takes the fact, forms a conjecture as to its meaning, and frames an hypothesis, or, if you will, a guess. He then endeavours to find if this have a basis of truth, and he performs experiments calculated to test its value. He perhaps fails, and then forms another conjecture which he once more puts to the test. He may at last be confirmed in the view he has taken; he then widens his experiments, and at the same time his conceptions grow larger, until step by step, theorising and experimenting, he is able to form one grand theory of the whole, which he again proves to be correct by the accuracy of the deductions which flow from it.

I think it is evident that the old methods which Bacon denounced, of framing fanciful theories according to preconceived mental conceptions, were all, as he says, valueless; at the same time a simple collection of facts, which some have declared was Bacon's reformed method, will also lead to nothing, for no new idea can flow from it. The true method of scientific inquiry is the combination of both systems, each alone being barren of results; speculation and imagination alone are valueless, a simple collection of facts is meaningless, but the combination of the theorising and observing qualities must exist in the truly scientific man. No better example of this can be found than in the late Michael Faraday, who would work week after week in his laboratory with apparatus, chemical or electrical, never making an assertion which could not be supported by facts, and who would yet at the same time be speculating on the subject in hand with all the spirit of a poet. There are plenty of persons who can sit in their studies and frame vain speculations, but to do this is not a rare talent; there are others who can observe facts without possessing the power of analysis; this, too, is of no great value, although the faculty of seeing clearly is far rarer and more useful than of having impressions and so-called views. The order of nature is to most of us a chaos, and therefore to decompose it and analyse it by a careful observation of phenomena requires rare talents.

Jenner observed a fact, he sought an explanation, and put it to the proof. His was the correct and only method. The world goes on and sees an apple fall, or a frog's leg jump in a dish, or a heart beat, but the very familiarity with these facts never excites the inquiry, why are these things so? Those exceptional men who do see, are the Newtons, the Galvanis, and the Harveys.

If then there be only one method by which truth can be discovered, we need no longer discuss how it happened (a fact which seems so remarkable to some persons) that this great discovery of Harvey should have been made before Bacon's treatise was published or extensively read: or further seek to refute the strange impression that Harvey should have worked in a spirit antagonistic to Bacon. I have shown how both these conjectures are erroneous, for Harvey worked, as I have said, in the one and only right way, being led by the true scientific spirit. Bacon, as may be seen in many parts of his writings, was acquainted with the true method, although his protests against the speculations of the ancients made him lay so much stress on what is called induction. Nevertheless, it may be considered remarkable that the results of Bacon's and Harvey's investigations should have appeared at the same epoch, and that Harvey, master of the true method, had never read a line of Bacon. If these men had no knowledge of one another, we need not ask whence they gained their inspiration; but rather how it was that two men endowed with the same spirit of inquiry should have arisen on the earth at the same moment. I should answer by saying that a general development had been going on in the womb of time, and that the moment of fruition had arrived when the world saw Bacon and Harvey.

What made the reign of Elizabeth shine out so brilliantly in England's history? If Bacon had strength enough of intellect to throw off the yoke of Aristotle and Plato, which for centuries had weighed on mankind; if Harvey soon afterwards had sufficient force of will to put aside his Aristotle and Galen, and search nature for himself; if afterwards Newton, discarding the then theory of the universe, set to work to find out for himself the principles of motion and forces; and if we see also in this Baconian time other men, illustrious in literature, in statesmanship, in commerce, or adventure, we need no longer inquire which of these great men was the forerunner of the other, but ask ourselves what was the common spirit which actuated them all. The answer is, that the whole country in the Elizabethan era was emancipating itself from an intellectual and spiritual thraldom. Aristotle and Plato had held despotic sway, and kept men's minds as it were in their iron grasp for centuries. Bacon had the courage and power to throw off the yoke, enough to constitute him a hero amongst the leaders of thought, and having felt his liberty, resolved thenceforth to be intellectually free.

It was a like spirit too which produced at the same period our Shakespeare, and men like Raleigh, Frobisher, and Drake, who in a large and literal sense unchecked and uninfluenced by the geography of ages, fearlessly put to sea, and rested not until they had made an unknown world their own. The history of the time exhibits the wonderful spirit which was actuating Englishmen: every man believed in himself and in his country, as cannot be better exemplified than by the old and well-known story of the people rallying round their Queen on the news of the approach of the Spanish Armada. There was an awakening and moving spirit stirring the hearts and intellects of men. Each according to his power was doing his work. Whilst Milton was shortly afterwards preaching freedom, Harvey in his sphere of science was exploring nature, and Bacon, though not an investigator himself, imbued with the true spirit, was teaching men with his pen how they should seek truth for themselves. One did not learn from the other; a common motive impelled them all, and the same spirit which roused them to independence and activity was operating on those who at this glorious period of our history founded the two Colleges of Physicians and Surgeons.

It would be taking, however, but a very superficial survey of the history of science were we to look upon it as the work of the few great men whose discoveries stand out as landmarks in the domain of knowledge; rather, we should say, that a host of lesser workers have contributed their share in uniting these together, or even assisted in their production, for there is much truth in the saying of Goethe—that discoveries are made by the age, and not by the individual. A moment's consideration shows that this must be so. It seems quite impossible for the human mind to look upon a complex piece of machinery such as we are surrounded by in the organic and inorganic world, and by any process of analysis unravel its various parts. By no such means can we arrive at knowledge. Simple laws are first discovered, and these we make use of to explain the more complex phenomena, much of the material used in their solution having been prepared by comparatively unknown and obscure individuals. All our knowledge is strictly relative, and can have no other side but that perceived by the human mind. Nothing, I believe, is less true than the sentiment contained in the lines of the poet—

> "Thy arts of building from the bee receive;
> Learn of the mole to plough, the worm to weave;
> Learn of the little nautilus to sail,
> Spread the thin oar, and catch the driving gale."

say whether the physical, the chemical, the physiological, or the purely spiritual idea dominated; and indeed must not all these, and more, be united in the mind of the Creator of all things, or be phenomena, if you will, of the underlying substance. In a poem describing the death and burial of a child, all these attributes may be seen, the last verse running thus:

"At last the rootlets of the trees
Shall find the prison where she lies,
And bear the buried dust they seise
In leaves and blossoms to the skies;
So may the soul that warmed it rise."

I have heard a preacher in his pulpit, after speaking somewhat disparagingly of science, declare that the child who plucks a flower and places it in her bosom knows more of the flower than the botanist who dissects it. It is no doubt true that the child may regard it with a reverence which seems incompatible with its destruction, but a knowledge of its structure in detail by no means diminishes the love for it as a whole. But this need not be; for Wendell Holmes, speaking of a character in one of his novels, whose sentiments assuredly betray the author himself, says, "He had kept in a singular degree all the sensibilities of childhood, its simplicity, its reverence. It seemed as if nothing, that all he met in his daily life, was uncommon or unclean to him, for there was no mordant in his nature for what was coarse or vile, and all else he could not help idealising into its own conception of itself, so to speak. He loved the leaf after its kind as well as the flower, and the root as well as the leaf, and did not exhaust his capacity of affection or admiration on the blossom or bud upon which the poet lavished the wealth of his verse. Thus Nature took him into her confidence. She loves the men of science well, and tells them all her family secrets—who is the father of this or that member of the group, who is brother, sister, cousin, and so on, through all the circle of relationship. And there are others to whom she tells her *dreams*—not what species or genus her lily belongs to, but what vague thought it has when it dresses in white, or what memory of its birthplace that is which we call its fragrance."

I have felt reluctant, and even almost ready to apologise for attempting to vindicate the high calling of men of science, and defend them against a widespread feeling as to the degrading pursuit of searching into the mysteries of the material world. I should not have ventured to do so did I not see our drawing-room tables covered with magazines and high-class literature, as it is called, in which some of the greatest men in our country—men of European reputation, men whose names will be handed down to posterity as the pioneers of knowledge, men of the same stamp as our own immortal Harvey—are not only held up to contempt, but their teachings described as degrading or even demoralising. Of course, these writers are blind; they have not their eyes open to the wonders around them; or if they hold any opinion as to the meaning of the world, it is associated with some philosophical or religious dogma which has formed its foundation. But scientific teaching must have its way; for, as we believe all parts of the world are held together by one force (and what is true of one portion is true of another), so scientific men must be pleased to see that the doctrine of evolution, first taught by them regarding material things, is seen to be a law pervading the world, and is now being made applicable to man in his mental and spiritual nature, both by moralists and divines. For if, as many hold, the imagination of man is but a reflection of the world around him, then evolution is as true as the older theories of a perfect world undergoing decay; for the scientific man knows that life and death are but correlative terms. Scientific pursuits are ennobling and accompanied by pleasure of the purest and highest kind. Nature reveals her secrets only to those who wish to discover truth; for while the dishonest man is repelled, and his reward is infamy, to the earnest investigator Nature becomes a moral teacher. Science conducts us through infinite paths; it is a fruitful pursuit for the most poetic imagination. We take the world as we find it, and endeavour to unravel its mysteries; but of the alpha and omega we know not. Enough for us to look at what is lying around us; it is a part we see, and not the whole, but we can say with the poet, "We doubt not, through the ages one increasing purpose runs."

I will detain you no longer: what more can I say? What grander image, what more glorious picture, can I set before you, than that which we have come to contemplate to-day—the King's physician searching out the secrets of nature?

ORIGINAL COMMUNICATIONS.

REMARKS ON SILKWORM-GUT SUTURES.

By J. HOPKINS WALTERS, M.R.C.S. Eng.

I HAD for some time intended to lay before the profession the advantages offered by silkworm- or fishing-gut as a material for sutures, when, in a paper by Mr. Thomas Bryant, of Guy's Hospital, I noticed that he had used the same in plastic operations about the vagina; and I also found that in his excellent work on surgery he had written, "For the quill suture good fishing-gut is better than silk or wire, it being strong and unirritating."

As, however, I have been unable to meet, among my numerous medical acquaintance, with anyone else who has tried it, I conclude that its use in surgical practice is by no means common, if not, indeed, rare.

The chief excellence of fishing-gut consists in its causing little or no irritation when embedded in the tissues. The way in which the latter tolerate its presence is wonderful, far surpassing either fine silk or silver wire, and, being perfectly soft while contained in moist structures, it remains pliable, admitting of, and participating in, the movements of these, instead of being stiff and resisting like wire. Another valuable quality is its comparative indestructibility, in this greatly differing from catgut, which, after a few hours, becomes completely softened and disintegrated, and finally incorporated with the surrounding tissue.

Fishing-gut maintains its integrity for many weeks, its strength seeming in no way impaired after removal. Its peculiar structure seems to render it almost as incapable as wire of becoming impregnated with the discharges from wounds which so often make silk injurious, if not absolutely dangerous. When I first used this material in 1873 I always steeped it for a minute or so in glycerine of carbolic acid, but have neglected to do so for a long time past, and do not find that it makes any difference.

My only excuse for mentioning the following trifling cases of minor surgery is the length of time which elapsed, through the patient's neglect, between the introduction and removal of the sutures.

Case 1.—Scalp wound, five inches long, caused by blow with blunt instrument. Treated by continuous silkworm-gut suture covered with a piece of dry lint. Third day, wound healed throughout by first intention. No irritation round stitch-holes. Wishing to see whether silkworm-gut would be absorbed like catgut, I did not remove the suture, and told him to come again in a week. He did not come. I met him two months afterwards, when he told me that the stitches remained for *six weeks*, causing neither pain nor discharge. At the end of this time, finding their presence inconvenient when combing his hair, he got his sister to pick them out with a needle.

Case 2.—Phimosis, with sub-preputial chancre. September 10, 1877: Prepuce slit up, and mucous membrane and skin sewn together with continuous silkworm-gut suture. Patient went out partridge-shooting on the third day, and continued his sport regularly, walking long distances daily. I removed the stitches November 14, they having remained in this sensitive part for *two months* without causing pain or inconvenience in spite of much walking exercise. There was no sign of irritation; the gut was perfectly sound and unchanged, and not one drop of pus oozed out on its removal.

Case 3.—August 31, 1878: Fall from dog-cart on to heap of stones. Wound running whole length of eyebrow, injuring supra-orbital nerve, and small piece of frontal bone chipped off. Silkworm-gut continuous suture covered with strip of lint and styptic colloid. September 2: Found patient had gone shooting. He did not have the gut removed until the last week in October, having worn it without feeling it for *two months*. The gut was unaltered.

I am not aware of any other material that can be introduced into and remain embedded in the tissues for so long a time without causing suppuration or else losing its integrity. I therefore believe that when these properties of silkworm-gut are more widely known it will be highly valued by surgeons. Mr. Bryant writes me that he has used nothing else for plastic operations for the last ten or twelve years. For these it seems peculiarly suitable, as also for all wounds involving or operations within the peritoneal cavity, for stitching

intestine as in the operation for artificial anus, and, above all, for ruptured perineum. I imagine also that no better material will be found for tying the pedicle of an ovarian tumour, but of this I have had no experience. The gut is very strong, and can be obtained of varying thickness, from the finest hair to stout salmon gut; and this, if used as a ligature, might be doubled or twisted as is done in some fishing casts. The thin gut can be used without any preparation; but the stouter kinds ought to be kept in water a few minutes to make them soft and more easy of manipulation. It quickly dries and resumes its stiffness.

Reading.

A CASE OF COMPOUND FRACTURES OF SKULL AND HUMERUS,

EXTENSIVE LACERATION OF THIGH AND CHEST—RECOVERY.

By WILLIAM BOULTING, L.R.C.P. Lond.

THE following history from my case-book appears to me to be interesting, as an illustration of the wonderful reparative powers of youth, and the aseptic value of country air.

C. J., fourteen, the son of a labourer's widow, was guiding a reaping machine on July 29, 1878, when, being unable to hold the horses in, he was caught up by the machine and dragged a distance of about thirty yards before it could be stopped. On my arrival, two hours after the accident, I found the patient, who appeared to be of weakly frame, lying in bed, very pale, cold, and half unconscious; pulse and respiration both feeble. There was a cut nearly four inches long over the left parietal and squamous bones, exposing two incised wounds into the cranium. The lower of these cranial fractures was a small chip from the outer table of the bone only; the upper, of the size of a threepenny-bit, passed completely through the parietal bone and exposed the middle meningeal artery, the pulsations of which were plainly to be seen. On gently introducing my probe I found that it passed on one side of and beyond the artery, and on withdrawal it was tipped with brain-matter. These cranial fractures were not starred, looking as if they had been skilfully punched out.

There was a lacerated wound extending two-thirds round the left arm, and the humerus was very cleanly divided at about the upper third of the supra-condylar ridges. The wound did not involve the main artery, and had ceased to bleed when I arrived; it did not communicate with the joint. There were also two deep lacerated wounds on the radial side of the forearm of the same side as its upper third. About the middle of the sternum the bone and the adjoining right costal attachments were exposed to the size of a small orange; the front of the chest crackled on pressure, the emphysema being apparently due to the action of the intercostals. There were two tears of about two and four inches diameter respectively at the outer surface of the left thigh, exposing the fascia lata; and I could pass my entire forefinger from the lower and larger of these between skin and fascia and towards the knee-joint. There were two or three minor lacerations in different parts of the body. I immediately treated the lad for collapse, and sent for my principal (Mr. Hodges, of Ludlow) to consult with me on the advisability of removing the arm, as I was of opinion that if the lad survived the immediate effects of the accident, a compound fracture and the other wounds of the arm should not be allowed to complicate his other serious injuries. Mr. Hodges was not of my opinion. On administering chloroform in order to dress the wounds, the symptoms were so alarming that we completed our task in a very hurried and imperfect manner, and left in the full expectation of a coroner's inquest. But the lad made an uninterrupted recovery. The following is a sketch of the progress of the case:—

August 1.—Temperature 101°; pulse 120. Seen in consultation by Messrs. Barnett and Edwards, of Leominster, who approved of the decision that had been adopted. The arm was rested on an L-shaped jointed splint. Carbolic dressing (one in forty) to the wounds, and carbolic irrigation of the arm and head. Window and door to be kept constantly open.

6th.—The scalp wound has reopened throughout its length. None of the wounds healing by first intention. The emphysema has disappeared. I detected a mitral regurgitant murmur. There have been no rigors. Temperature 103°; pulse 140, irregular. The whole of the left ring and little fingers are insensitive.

9th.—Ung. resinæ to smaller wounds. Temperature 100°; pulse 120. Bare bone to be left at the bottom of the wound of the arm. All the wounds are sloughing a little at their edges. Pure iodine suspended at head of bed.

13th.—Carbolic oil substituted for irrigation. Put on beer.

30th.—Little attempt at granulation. Skin grafts from my own arm. Put on full diet and tonics. Ung. resinæ to all the wounds.

September 17.—One or two grafts only have taken. The granulations are superabundant. Touched with caustic every other day. Pale fungating granulations protruding over the situation of the cranial fracture, snipped with scissors and a pad applied.

28th.—Left little and ring fingers contracted in spite of the application of a splint. Patient can raise his arm a little. The mitral murmur has disappeared.

October 5.—Two small exfoliations from the head, and one from the arm. All the wounds have healed except that of the arm, which is the size of a shilling. Daily passive motion of the arm.

November 13.—The patient looks bright and well. He has put on flesh, being much fatter than before the accident—"owing to good living." He can pronate and supinate and bring his hand to his mouth. Extension not so perfect, and the ring and little fingers contracted. There is still a button granulation about one inch and a half above the elbow leading down to dead bone.

This recovery seems to me to be remarkable when one remembers how many rocks ahead were escaped—death from shock, erysipelas, pyæmia, ulceration of the exposed meningeal artery, meningitis, encephalitis, gangrene of the arm, death from exhaustion, mental or nervous symptoms, non-union, anchylosis: all these were happily avoided.

Ludlow.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

A CASE OF PSORIASIS TREATED SUCCESSFULLY WITH SULPHUR OINTMENT.

(Under the care of Dr. PAVY.)

ELIZA F., aged nine years, was admitted on February 4, 1879. Her father and mother were alive and well; she had two brothers and one sister all enjoying good health. Her father stated that there had never been any skin disease in his family before, and denied the existence of any syphilitic or other hereditary disease. Patient had always been a very healthy girl, and never had any illness until she was admitted into Guy's Hospital, under the care of Dr. Moxon, on January 2, 1878, for psoriasis affecting the upper and lower extremities, the trunk both back and front, both eyebrows, the right and left ears, and the posterior part of the scalp. Arsenic in full doses was then given, and at first carbolic acid solution was applied to one side of the body, but this, giving rise to symptoms of carbolic acid poisoning, was discontinued. Chrysophanic acid and tar ointments were next applied on different sides of the body, and this treatment was continued until February 19, but without much benefit. Lead lotion and simple ointment were then used with good effect, and patient was discharged cured on May 27, 1878. On admission (February 4), patient is a healthy-looking, intelligent girl; the tongue is clean, the appetite good, and the bowels are well regulated. She has well-marked patches of psoriasis over almost the whole of the body. In size these vary from places about three inches in diameter, covered with bright yellow scales, to minute spots. There are a few scaly patches on the right ear the face and shoulders are free; on the back a few scattered patches can be seen at the lower part. There are several large scaly patches on the front of the abdomen, but the psoriasis is most marked on the limbs, the leg and arm of the left side being especially affected. Below the left knee a number of patches have coalesced, and cover nearly the

A Constant Reader, Leeds.—Apply to the War Office regarding a medical appointment with the British forces in Zululand.

Mr. Williams.—It is no fault of the Secretary of the College of Surgeons, who has sent to every Fellow of the College resident in the United Kingdom, whose address is known to him, the usual notices of the annual election. The fault is your own; and there are many like you, who remove without sending him notice, notwithstanding the request he makes every year to send correct addresses. Your suggestion to add "Surgeon," where there are so many Joneses, Davises, Williamses, Prices, etc., in every town in the principality, would give offence to some "Fellows." Where this was once done, the gentleman wrote angrily to Mr. Belfour to know whether he put "Surgeon" after Mr. Cæsar Hawkins, and he demanded as much respect being paid to him, "although only a Welshman"! The "Medical Directory" is not an *official* guide, consequently the Secretary of the College is not called on to consult its pages.

M.D.—The annual exhibition of preparations, etc., about to be added to the Museum of the College of Surgeons, is now on view in the theatre of that institution, and will well repay a visit. Doubtless these interesting exhibitions tend to induce members to enrich the Museum of the College, of which they are members, with sometimes most valuable additions.

COMMUNICATIONS have been received from—

Mr. T. H. McGoeSTY, Slane; The Honorary Secretary of the Parkes Museum of Hygiene, London; Mr. John Chatto, London; Mr. T. M. Stone, London; Mr. D. Colquhoun, London; Mr. Charles Wahab, London; Mr. J. Hopkins Walters, Reading; Dr. A. J. Wolfe, Glasgow; Messrs. Arnold and Sons, London; Messrs. Hopkinson and Cope, London; Dr. George Harley, London; Dr. John Williams, London; Mr. F. Wright, London; Mr. F. A. Maciver, Edinburgh; Dr. Ritchie, Edinburgh; Messrs. F. C. Calvert and Co., Manchester; Mr. Norman Porritt, Leeds; Registrar-General, Edinburgh; Dr. Joseph Rogers, London; Mr. Sampson Gamgee, Birmingham; Dr. R. Semple, London; Dr. Sparks, Dorchester; Mr. W. H. Crowther, Liverpool; The Registrar of Apothecaries' Hall, London; Dr. Fairmann, Hanley; Dr. Edmunds, South Hampstead; Dr. Walters, Reading.

BOOKS AND PAMPHLETS RECEIVED—

Report of the Metropolitan Board of Works for 1878—Cottages: How to Arrange and Build them, by a Sanitary Reformer—A. Moitessier, Éléments de Physique Optique—D. Federico Rubio, De la Circumcision—Dr. Rudolph Voltolini, Die Rhinoskopie und Pharyngoscopie—Alfred H. Allen, F.C.S., An Introduction to the Practice of Commercial Organic Analysis, vol. i.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—El Siglo Médico—Centralblatt für Gynäkologie—Index Medicus—Students' Journal and Hospital Gazette—American Practitioner—Canada Medical and Surgical Journal—Quarterly Journal of Inebriety.

APPOINTMENTS FOR THE WEEK.

June 28. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

30. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

July 1. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 2 p.m.

2. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Obstetrical Society, 8 p.m. No specimens will be exhibited.—Adjourned Discussion on the Forceps.

3. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

4. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 21, 1879.

BIRTHS.

Births of Boys, 1281; Girls, 1202; Total, 2483.
Average of 10 corresponding years 1869-78, 2195·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	685	631	1316
Average of the ten years 1869-78	682·1	615·4	1297·5
Average corrected to increased population ...	...	...	1368
Deaths of people aged 80 and upwards ...	...	...	32

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	4	5	4	4	...	...	...	...	5
North ...	751729	3	86	13	...	6	...	3	...	1
Central ...	334369	...	18	2	...	5	...	1	...	1
East	639111	...	23	8	1	9	...	1	1	4
South	967699	5	22	11	5	11	...	2	...	4
Total	3254260	12	104	38	10	31	...	7	1	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·573 in.
Mean temperature	58·4°
Highest point of thermometer	70·8°
Lowest point of thermometer	48·7°
Mean dew-point temperature	53·2°
General direction of wind	S.W.
Whole amount of rain in the week	0·82 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 21, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending June 21.	Deaths Registered during the week ending June 21.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620988	48·0	2483	1316	70·8	48·7	58·4	14·66	0·82	2·08
Brighton ...	105608	44·9	54	33	70·1	51·8	58·4	14·66	1·00	2·54
Portsmouth ...	131821	29·4	83	29	...	...	...	...	...	...
Norwich	85222	11·4	33	36	71·0	51·0	58·4	14·66	0·17	0·43
Plymouth	74293	53·3	42	16	67·0	54·0	57·0	13·89	2·50	6·35
Bristol	209947	47·2	125	65	...	...	...	...	...	...
Wolverhampton ...	75100	22·1	50	25	70·5	46·3	56·0	13·33	0·62	1·57
Birmingham ...	388884	46·3	301	128	...	...	...	...	...	...
Leicester	125622	39·3	88	33	70·0	46·0	57·5	14·17	1·06	2·69
Nottingham ...	169396	17·0	100	40	74·2	44·4	58·7	14·83	0·80	2·03
Liverpool	538338	103·3	379	200	68·0	49·6	56·2	13·44	0·64	1·63
Manchester ...	361819	84·3	264	178	...	...	...	...	...	...
Salford	177849	34·4	137	65	...	...	...	...	...	...
Oldham	111318	23·9	73	24	...	...	...	...	...	...
Bradford	191046	26·5	130	74	70·3	46·8	57·4	14·11	0·47	1·19
Leeds	311860	14·5	222	92	71·0	46·0	57·8	14·34	0·55	1·40
Sheffield	297138	15·1	225	103	69·0	44·0	56·4	13·55	0·73	1·85
Hull	146347	40·3	138	61	73·0	45·0	57·6	14·23	0·65	1·65
Sunderland ...	114575	41·4	94	40	75·0	48·0	55·9	13·28	0·63	1·60
Newcastle-on-Tyne	146948	27·4	106	61	...	...	...	...	...	...
Edinburgh	228075	58·9	165	100	66·0	44·7	54·3	12·39	2·01	5·11
Glasgow	578158	95·8	396	218	67·0	49·3	57·0	13·89	1·22	3·10
Dublin	314666	31·3	224	238	70·9	44·3	57·9	14·39	1·16	2·91
Total of 23 Towns in United Kingdom	8502896	38·6	5912	3175	75·0	44·0	57·2	14·00	0·94	2·39

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·57 in. The highest reading was 29·88 in. at the beginning of the week, and the lowest 29·32 in. on Monday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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I believe no contemplation of the bee or its hive would have taught us its habits or shown us how it arrived at the mathematical precision of its cell. This can only be understood by a knowledge of facts and laws gained through centuries of work, and then perhaps they would not suffice for a true solution of the mechanism of the beehive. Man had for ages looked with awe on the lightning, but no amount of contemplation could have revealed its meaning; it could only be understood when the laws of electricity were applied to explain its phenomena, and these were learned step by step, supported on so simple a basis as the effects of rubbing a piece of wax. The glories of the bow in the skies, though gazed at for ages, had never suggested the interpretation of the spectrum; but it was by the observation of a ray of light passing through a hole in a window of a small room that the meaning of the rainbow was revealed.

So in physiology we are apt to forget that it is by slow work, step by step, and often quite apart from the subject whose interpretation we seek, that we obtain fruitful knowledge. No contemplation of the human eye would have suggested the camera, but the building up of the camera by a series of inventions explained the mechanism of the eye. We have endeavoured to teach the function of the tympanum and its chain of bones by the knowledge in our possession, but we now think that this was insufficient since the physicist has discovered the intimate relation between electrical and sonorous vibrations in his microphone. I think I am right in saying that no piece of mechanism was ever framed in imitation of a straw of wheat or the hollow thigh-bone, but when by a series of experiments the engineer discovered that with the least material he could gain most strength, by making his support as a hollow girder or tubular bridge, then we applied his discovery to interpret the meaning of the culm of grass or the human os femoris. No contemplation of the nerves ever excited man's imagination towards the fabrication of an electric telegraph, but, on the other hand, the insulated wire, the result of much labour and thought, was found to have its counterpart in the nerves, whose component parts it then explained. The action of salines and colloids on the human body was learned by means of parchments and tubes in the laboratory.

These facts should point out to us how fruitless it is to attempt to understand complex structures and phenomena before we have arrived at the necessary steps for their solution. This is eminently true of the nervous system, where we are endeavouring to understand its most intricate phenomena by the application of laws derived only from our present limited knowledge. The remarkable observations of late, with respect to anæsthesia in hysterical women, states of somnambulism and ecstasy, and very similar conditions found through all animal life, should make us feel that we have still to learn the meaning of nerve-force. With our present imperfect knowledge the attempt to understand it is like taking a child, ignorant of the very first laws in physics, before a steam-engine and endeavouring to explain its action. We cannot solve a problem until we know the meaning of the terms in which it is framed. Thus we see our greatest men, like Faraday, endeavouring to master the simplest facts and phenomena, taking for their maxim *Tota in minimis*,—All nature exists in the least. Harvey made use of all the known laws of his time, and thus the grandeur and fruitfulness of his discovery.

I might here remark that this gradual growth of knowledge is another example of the progression which we witness in every department of nature, and might be used to afford further illustrations to philosophers who have contended so long over the question of innate and necessary truths on the one hand, or experience on the other, as the basis of all knowledge. They would see that our interpretations of natural phenomena have not been arrived at (as if often thought) by an investigation or analysis of complex conditions, but have been worked out, step by step, by the human mind by means of laws framed from the simplest observations and experiments, proving, as must ever be the case, that the subject and object are united. Thus, the mode of increase of our knowledge is by slow growth, and corresponds to the development which we witness in the material world. Just as the human body contains within it the whole of animal life, or ontogenesis is a counterpart of phytogenesis, so the human mind, gradually unfolding itself and passing from simple to more complex laws, finds its counterpart in the creative force which has been bringing about the development of the world. The human mind has been creating afresh the laws which are found in operation throughout nature, and may in time, like its corporeal possessor, hope to grasp the whole within itself.

Now, having satisfied our moral sense as to the duty of pursuing these objects, we may fairly ask, as a scientific section of society, Are we arrogating too much to ourselves in placing these discoveries so high, and regarding it as our chief ambition to be instrumental in augmenting their number? For we must know well that many persons whose line of life does not lie in our direction do not hesitate to declare that higher aims are to be found in philosophy and art than can possibly be met with in science. I, for one, however, would strictly maintain the right of scientific investigators to the very highest consideration, aiming, as they do, at some of the most glorious objects which man can place before his vision, and assert, moreover, that the view of our opponents is a puerile one. In taking natural science as our domain we include in it man himself, who not only inhabits the globe, but, as we say, forms a part of it, and it of him. We too frequently hear man spoken of as if he could have a separate existence from the world on which he lives, whereas he is a part of it, and has grown out of it. It were, indeed, impossible to think of man or any other living creature as preserving his individuality apart from the world which he inhabits. I need not enlarge upon the trite examples of the uselessness of the eye without light, or of the meaninglessness of the ear without the vibration of air, but ask you to consider the relation of the atmospheric air to the lungs. For if the bronchial tubes be regarded as analogous to the secreting tubes of other organs, and the contained air in them to the respective secretions, then there is really a portion of our body outside ourselves; the air around is not only a necessity of life, but it is as much a part of us as is the bile in the ducts of the liver.

An examination, therefore, of the material world implies a study of man who forms a part of it, and in studying a man as we do other animals we include all his attributes—his appetites, his passions, his instincts, and his higher intellectual functions; and I myself can scarcely see what grander, what nobler pursuit can be followed. It might be thought that in a learned society like this I ought to apologise for attempting to vindicate the claims of science, and yet sometimes there are found those in our profession who, deficient in the true scientific instinct, are influenced by mere literary cavillers in our newspapers and magazines. We believe these writers are altogether mistaken in their view of the lofty objects which are ever placed before us. They belong to a class who, no doubt, feel a great repugnance to all physical inquiry, they regard it as mean and low, compared with their own soarings in the region of the imagination. I can quite understand how they shudder at the thought of penetrating beneath the surface of things. Just as I have myself felt on leaving the green fresh fields and descending into a dark mine in the bowels of the earth, so they instinctively feel a horror on raising the veil and beholding an object like the dissected dead body deprived of its outward form and beauty. These external attributes, they say, are enough for them, and to pry into the mechanism (in the words of a distinguished writer) is no business of ours; form and colour, besides a hundred other qualities, are the phenomena which are allied to the spiritual and excite the imagination; but the substance which underlies them is unpleasant to think upon, it is gross, it is material. All explanations of the working of the human body are styled materialistic, and this expression in certain circles has become a term of ill odour, savouring of degradation, of impiety, and even immorality. What shall we say to our great writer on art, the author of the "Stones of Venice," one for whom I personally feel the greatest regard, and whose works I peruse with admiration, when, in one of his last lectures at Oxford, after descanting in the most eloquent and rapturous terms on the beauty of the wings of the dove as it sails through the air, chooses to depart from his theme in order to pour a venom of wrath on the anatomist who dares to explain his flight by a mechanism of joints, of bones, and of feathers! That this tone of thought is very prevalent we had an opportunity of perceiving at the time of the controversy on vivisection, the opposition to which was based virtually on the inutility of that particular piece

of cruelty to animals practised by physiologists, since it led only to useless knowledge and fostered idle curiosity. I have just now quoted the words of one of the most eminent of the opponents of vivisection, that to pry into the insides of animals and discover the secrets of nature was no business of ours, and this, alas! the expression of a man renowned in literature two centuries after Harvey's exactly opposite incitation to discovery! I should feel almost ashamed to speak of the literature which flooded the houses of society three years ago, did it not reflect the opinion of a large class of the public, and of those who are influencing many persons through their writings in the magazines. A contributor of one of these papers supported by good and educated people writes as follows: "Professor Huxley produces artificial blushing in a rabbit by cutting the sympathetic nerve. And what a discovery has he presented us with here. Maiden, that delicate tinge with which nature has taught you consciously, yet involuntarily, to mantle your cheek with ever superadded loveliness, a loveliness which has hitherto been accounted too exquisite to be gazed on profanely, is found to be after all but a vulgar thing capable of being produced mechanically! But truly what sacred mystery of your being will not these magicians of science disclose next?" The writer continues then in the most logical manner to declare that it was the culling this forbidden fruit of knowledge which brought the curse upon man.

I should have been ashamed to have quoted this rhapsody, did not sentiments like these pervade the writings of those whose influence over society is great. They say, in a word, that all the world's a stage, and the men and women merely players; that God Almighty pulls the strings, and we are forbidden to look behind the scenes. They say you may admire, if you will, the shape and actions of the arm, and then expatiate on the mysterious power which enables an act of the will to move the limb; but you must not look at the mechanism to see how it is accomplished, for that is material and degrading. Admire, if you will, the blush on the maiden's cheek, but forbear to disclose the secret springs through which the charm appears. Must we again go back two centuries to find the answer given by our great poet?

"This is an art which you say adds to nature—
Change it rather; the art itself is nature."

It cannot, therefore, be a matter of indifference to us if we find that so many men engaged in literature and art feel a repugnance to science; and we may consequently ask ourselves, Can it be true that all elevation of thought, imagination, poetry, and the love of the beautiful, are the peculiar attributes of one class only, and that the man who dares to look into the composition and the mode of operation of the material world around him must pay so heavy a price for his passion for knowledge?

It were very sad if this were true, and might behove us even now to look around us and ask ourselves whether we are indeed well and worthily employed; but we refuse to believe so absurd a fiction. The wonder is how anyone professing piety can regard the mechanism of God's works as low. We can understand the feeling which makes a man shudder at the sight of a dissected body; but when the strangeness of the sight is past, and he can contemplate it without disgust, it by no means lessens the appreciation of its beauty when clothed in its integument. Cannot he regard it with the artistic eye, and yet have a more perfect knowledge of its anatomy? Hear what a learned professor of anatomy can say—Wendell Holmes: "Science represents the thought of God discovered by man. By learning the natural laws, he attaches effects to their first cause, the will of the Creator." Or, in the poetic language of Goethe—

"Nature is the living garment of God."

Of course it is possible that a man, deeply engaged in a scientific analysis of a material object, may have his eyes shut to the sublimity and grandeur of form, or beauty in every shape, and be so dead to the more sacred feelings of our nature, even, as the poet says, to botanise upon his mother's grave, but this is owing to the man's idiosyncrasy; his work does not harden his heart, for we may quote sufficient examples to show there is no antagonism between the man of science and the man of imagination. Have we no artists, no poets, no musicians in our own ranks?

It may be true that the majority of persons are born Aristotelians or Platonists, but, nevertheless, it were not difficult to point to men most eminent in science who would not have disgraced any department of art. But fortunately we can find some of the greatest geniuses whom the world has produced, who have been able to seize upon all the attributes of nature in order to raise their imagination to the highest pitch. What an example was Goethe; he could study the meaning of the intermaxillary bone, of the vertebræ, dissect a flower, or analyse a ray of light, yet withal, he could conceive nature in all its profundity and beauty. Moreover, these studies in no way interfered with the genius which could create a Wilhelm Meister or a Faust. And further, should the scientific man not display to the world any faculties of mind dissociated from those employed in his more immediate pursuit, it were a scandal, it were false, it were ridiculous to suppose that his researches did not warm his heart to a full appreciation of the wonders of the subject which engages him. It has been my privilege to have heard, since my student days, lectures by several professors of zoology and comparative anatomy at the College of Surgeons up to the very present year, and I have observed with what tenderness, with what love, they have spoken of the different animals whose structure and whose habits they have been describing. And it was the same with their great predecessor, John Hunter; for as Sir James Paget truly said in his oration, the expression of the great anatomist in the well-known portrait displays a smile akin to rapture. "I cannot doubt," says Sir James, "that he attained that highest achievement and satisfaction of the intellect when it can rest in a loving contemplation of the truth; loving it not only because it is right, but because it is beautiful. I cannot doubt that, in the contemplation of the order and mutual fitness in a great field of scientific truth, there may be, to some high intellects, a source of pure delight, such as are the sensuous beauties of nature to the cultivated artist mind, or virtue to the enlightened conscience. I believe that in contemplation such as this Hunter enjoyed a calm, pure happiness. So Reynolds, his friend, seems to tell of him. In that masterpiece of portraiture, which teaches like a chapter of biography, Hunter is not shown as the busy anatomist or experimenter pursuing objective facts. The chief records of his work are in the background; he is at rest and looking out, but as one who is looking far beyond and away from things visible into a world of truth and law, which can only be intellectually discerned. The clear vision of that world was his reward. It may be the reward of all who will live the scientific life with the same devotion and simplicity."

I believe there are men amongst us who so love nature they might prove even to Mr. Ruskin that the microscopic cells and the spiral fibres seen in the dissection of the plant possess beauties of their own, and are but the elements which, when grouped together, form the shape of the branches of the trees, and determine the clustering of the foliage, which in this stage of development alone, he imagines, can inspire him by their charm. One might even almost hope that the repugnance with which chemistry, equally with anatomy, inspires him, would disappear when shown the production of colours in the laboratory, and that combining henceforth this newly acquired knowledge with those sentiments which enable him so eloquently to describe the autumnal tints of the forest, he might at length be at one with Shakespeare that art is not added to nature, but that art itself is nature. What I should like to insist on, is that the material world can be examined in many ways: it may be regarded in an analytic and scientific spirit, or with the eye of the poet; but as every quality which the mind can conceive must be an attribute of nature, one view need not destroy the other. And more than this, they are often but the two sides of the shield, or even identical; for example, when the physiologist sees a boy walking along the road whistling, he says that as the forces produced in the boy's nerve-centres are not being employed in intellectual processes, they make their escape by whistling, just as a steam-engine blows off the steam with a great noise when not doing useful work; the poet wonders at the scientific man's materialism, and exclaims, "The plough boy whistles as he goes, for want of thought." One of the most remarkable examples, in my opinion, of a man who possesses both a scientific insight into objects around him, and at the same time the true artistic and poetic mind, is the Professor of Anatomy at Boston to whom I have already alluded. I should say that Wendell Holmes has the faculty, more than any other author whom I know, of analysing human sentiments, and showing their association with the material world around us. In some of his writings and poems it were difficult to

whole of the back and front of the leg. The fingers and toes on both sides are unaffected. The chest is well formed. and the respiratory and circulatory systems are quite normal, The urine is also normal.

9th.—Chrysophanic acid ointment was ordered on the 5th inst. to be applied on the left side, and liquid tar ointment was ordered for the right side. The parts have been dressed every morning, and to-day it was noted that on the right side nearly all the scales have come away, but that the left side does not look so well.

13th.—Patient's head was shaved three days ago on account of pediculi, and it was then discovered that there were several small patches of psoriasis on the scalp. These are to be treated with the ointment.

19th.—Liquor arsenicalis in five-minim doses three times a day was ordered to-day. On the 16th inst. patient had a bath, and the parts were well cleaned. The scaly patches had almost disappeared from the right side, but several were still to be seen on the left.

28th.—The left side is improving slowly; the scales on the right side have disappeared. The general health of patient is very good, and all the parts are improved since admission.

March 11.—Not much progress has been made. The left leg and arm seem to recover very slowly. The same treatment is being pursued.

27th.—The left leg seems to desquamate every other day; the right leg continues to look very well.

April 3.—The head has become worse, and the hair has been again removed, and the ointment is to be applied.

7th.—A pill of pix niger was ordered to be taken three times a day. The head looks better. There are no scales on the left leg, but the patches are still very much raised.

May 6.—There have been occasional intervals of improvement or retrogression, but, on the whole, there has been little change in the condition of the parts. To-day Dr. Pavy ordered the internal administration and the application of tar to be stopped, and ordered three grains of iodide of potassium, with arsenic, to be taken three times a day.

12th.—Unguentum sulphuris was to-day ordered to be applied to the patches, which are again not looking well.

19th.—Since the application of the sulphur ointment to the patches they have much improved; they are not so raised above the general cuticular surface.

June 9.—Patient has improved wonderfully under the sulphur treatment. The head is quite well, and the patches on the extremities and body have nearly disappeared.

16th.—Beyond some dull red marks, there is now no appearance of the psoriasis anywhere.

In this case, although the tar and chrysophanic acid did good at first, yet their application seemed to have no effect in getting rid of the disease beyond a certain point. The use of the sulphur ointment was followed by speedy improvement, and then by the total disappearance of the patches in a comparatively short time.

ACADÉMIE DE MÉDECINE.—It is seldom that an election is disputed so warmly as that for the place in the section of hygiene and legal medicine left vacant by the death of Prof. Tardieu. There were seven candidates, but the contest lay between MM. Gallard and Proust, who were placed *ex æquo* on the first line of the list sent up by the committee. At the first ballot they polled equal numbers; at the second, M. Proust obtained thirty-seven to M. Gallard's thirty-six votes; and at the third, when the other candidates were eliminated, M. Proust received forty-six votes and M. Gallard thirty-three.—*Gas. des Hop.*, June 19.

TREATMENT OF CHRONIC URTICARIA.—In a lecture on urticaria (*Gas. des Hop.*, June 19) Dr. Guibout observes that although in ordinary cases its treatment is very simple and merely hygienic, when it becomes chronic and dependent upon permanent dyspeptic derangement, medicinal agents are required. In this case, according to the particular indications, we should have recourse to emetics, purgatives, or stimuli, among which he prefers strychnia given in the following form:—Distilled water 120 grammes, sulphate of strychnia 2 centigrammes, syrup of mint 50 grammes; a tablespoonful to be given before each of the three principal meals. Alkaline and gaseous mineral waters, such as those of Vals or Vichy, are also very advantageously employed as a means of rendering digestion more easy and more rapid.

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Medical Times and Gazette.

SATURDAY, JUNE 28, 1879.

THE HARVEIAN ORATION OF 1879.

IN the eloquent Oration which Dr. Wilks delivered to the College of Physicians, on Thursday last, in commemoration of the name of Harvey, and which we have the pleasure of publishing to-day, the Orator took for his text Harvey's injunction to the College, "to study and search out the secrets of nature by way of experiment"; and pictured him as "the King's physician, assisting in the advancement of knowledge, and unravelling the problems of nature." Dr. Wilks pointed out that if we look through the long roll of the College, it will be seen that some of its members—as Jenner and Marshall Hall—have done work which will bear comparison with that of Harvey himself; and that, in fact, a large part of physiological discovery has been made, and must be made, by the practising physician. This, the Orator shows, must necessarily be the case; for we cannot find out the secrets of nature by direct experiment only, but must also make use of the experiments performed by Nature herself in the various maladies which daily come before us, and take advantage of these vast opportunities of thus unlocking her secrets. The public consider that the treatment and alleviation of human suffering is the beginning and the end of medicine. A practical command of the means of treating disease is all they expect or ask for from the medical man. They do not recognise, they cannot understand, the scientific aspect of the medical profession. But the medical man has problems relating to the working of the complex machinery of the human body ever awaiting his solution, and the daily task of the physician is one of physiological investigation, as well as the treatment of disease. "For, while affording relief to the sufferer who has sought his aid," Dr. Wilks remarks, the physician "yet makes use of the opportunity to watch the effects of the quickened revolution of the wheels, of the stiffened valves, or the changes in the fluids which are circulating through the tubes of the animal machinery." In the daily application of his art, in the use

of drugs, the physician acquires many important and interesting facts bearing on the function of the organism. As the pure physiologist makes experiments in his laboratory in order to discover the function of some portion of the animal economy, so the physician has constantly under observation similar experiments made by accident or disease. So it would be difficult to say whether the physiologist has more assisted the physician, or the physician the physiologist, in the elucidation of obscure phenomena observed in the human subject; and every medical man who pursues his avocation in a scientific spirit knows how large a proportion of the questions he is obliged to discuss are physiological. Dr. Wilks illustrates this fact by referring to the different cases of paralysis, of diabetes, of nerve disorder, and of mental alienation that come under our care; and, with regard to the last class, remarks how the discoveries by physiologists and by practising physicians, while demonstrating the intimate relation between the convolutions of the brain and the muscular system, prove also the close alliance between psychic states and muscular movements. "This might be illustrated in various ways," he says, "but perhaps we cannot do better than go to the stage for a confirmation of the doctrine. There we not only see the actor placing himself in attitudes corresponding to the states of feeling he wishes to express; but, as some of the most famous performers assure us, the very posture they assume, suggestive of some passion of the mind, will cause the latter to grow into a reality, until laughter may be excited or tears flow, which are absolutely genuine in their origin." From this physiological fact many a practical lesson may be learned; and "a desponding man stooping forward in his chair may be made cheerful in spite of himself by a brisk walk with expanded chest." In this scientific spirit Harvey worked—as a physician searching out the secrets of nature, and standing apart from the Fellows of his College only in his superior excellence. From this point of view Dr. Wilks spoke of him, observing that this view tends to elevate us as a profession, and places us in one of the most exalted positions that man can hold. "If our vocation leads us to the study of our fellow-creatures, in both their bodily and mental capacity, what higher function can we discharge? Others in the State may frame laws which govern the people in their social and political relations; but beneath all these lies the individual man, with his instincts, his pleasures, and his pursuits, having their bases in his material nature, a knowledge of which can be possessed by the medical man or physiologist only, and upon which all social regulations must depend."

Dr. Wilks treats of the question some have raised as to Harvey's method of inquiry, whether it was the inductive or the deductive method; and observes that Harvey's was the true scientific method, as adopted by Jenner and all other illustrious discoverers amongst us, and was of the purest inductive kind; but that our greatest scientific men, from Harvey downwards, had little technical acquaintance with the methods they practised. "Whether the inquiry be physiological, chemical, or physical, the method is one. So far from their being able to say whether the inductive or the deductive process is the better, they employ both." And he thinks that most discoverers were totally unacquainted with philosophical terms. "Amongst our own friends," he remarks, "engaged in researches, one seldom hears philosophy discussed; and indeed where such terms as induction or deduction appear prominently in their pages, I have myself remarked that there is little hope of gleaning a scientific fact." "The true method of scientific inquiry is the combination of both systems, each alone being barren of result; speculation and imagination alone are valueless, a simple collection of facts is meaningless, but the combination of the theorising and observing qualities must exist in the truly scientific man."

All the latter part of Dr. Wilks' Oration is a most eloquent vindication of the high calling of men of science; but we cannot afford space to treat further of the address here. We have the pleasure of placing it *in extenso* in the hands of our readers, and we doubt not they will eagerly study the picture placed before the Fellows of the College, of "the King's physician searching out the secrets of nature."

THE PRESIDENT OF THE GENERAL MEDICAL COUNCIL BEFORE THE SELECT COMMITTEE.

The Select Committee of the House of Commons on the Medical Act Amendment Bill held the first meeting for the hearing of evidence on Monday, the 16th inst. The whole time of that meeting, and of the second one, held on Friday, the 20th inst., was occupied with the examination of Dr. Acland, President of the General Medical Council. At the third meeting, on Monday last, Mr. Simon, President of the Royal College of Surgeons, and formerly Medical Officer to the Privy Council, was the only witness examined. After the conclusion of his evidence to-day (Friday), Dr. Quain will be called as the next witness. The extreme slowness of this rate of progress, which we pointed out last week, seems to have occurred to the members of the Committee themselves, and there is a prospect that meetings may in future be held more frequently than twice a week. Of course there is some good reason for the lengthy character of the evidence first received, in the fact that a Committee composed mainly of laymen require many explanatory detail sregarding medical matters to make them perceive what their inquiry really refers to, and in the other fact that the witnesses first examined had a special knowledge of past medical legislation, and long practical experience of the working of the General Medical Council under existing regulations.

The examination of Dr. Acland, the conclusion of whose evidence is reported in another column, cannot, we should think, have been very satisfactory either to himself, or to his examiners, or to anyone else. Though in most points of actual fact he was able to give tangible information, in reference to some important details of this nature his knowledge was certainly not of that precise and ready-to-hand character which might have been expected in one who has had a seat in the Medical Council since its establishment in 1858. But in reference to matters of opinion he was a perfect dummy, or something more tantalising. On many important questions he either had formed no opinions or declined to give them utterance. During the whole of his examination he displayed a perfect mastery of the art of speaking in reply to, without answering, questions; and he himself never for an instant forgot, or allowed his audience to forget, that as President of the General Medical Council his utterances were of the most oracular insignificance. In many cases, certainly, they resembled the responses of the oracles of old in their skilful shirking of the question raised.

With regard to the existing Medical Council, its constitution, the scope of its work, and the manner in which it has been performed, Dr. Acland had at the outset an apparently decided opinion—that of complete satisfaction. We say "at the outset," because on cross-examination he showed that even on this question his mind was not quite made up. Thus he could not really say whether the Council would be much better or worse for certain changes in its constitution. He was—rightly, we think—opposed to any large increase of the number of members of the Council, and did not think well of the proposal for direct representation. But on the specific question whether he thought it fair that the

University of Oxford, with its confessed want of facilities for medical education, ought to have one representative on the Council, while the fully equipped Universities of Edinburgh and Aberdeen had each only half a representative, how could an oracular President give an opinion, especially as he himself hailed from Oxford? He would admit that in the case of Edinburgh and Aberdeen the combination had led to considerable inconvenience, but he must consider in what sense he should answer the question. And after such consideration his answer was of the vaguest type.

But worse was to follow regarding poor Oxford. It was really too inquisitive of Dr. Cameron to require so much information from Dr. Acland, on the second day of his examination, regarding the "lost medical school." To the simple question, whether there was a regular medical school at Oxford, Dr. Acland could not give the slightest clue to an answer, as there might be so many different ideas of what constituted a regular medical school. Getting more definite, Dr. Cameron wished to know how many professors there were attached to the Medical Faculty at Oxford. But Dr. Acland had not the faintest notion of what is commonly meant by the term "medical faculty," and therefore, of course, could not answer the question. Reduced to a concrete example, Dr. Cameron would like to know for certain whether there is such a person as a professor of anatomy at Oxford. But Dr. Acland was equal to this final assault. There were at least two "anatomies," a surgical and a philosophical; and the University of Oxford endeavoured to include the latter in its biological teaching. We hope Dr. Cameron was satisfied.

We are surprised that it did not occur to Dr. Acland that this style of answering was calculated to do the greatest harm to interests which he himself holds dear. If he had frankly admitted at once that the arrangements for medical education at Oxford are suited only for the preliminary studies, he would have stood on secure ground. The effect of his answers on this subject upon the minds of the members of the Committee must have been to arouse in them the reflection that if the most pretentious of the English Universities was proved to be so very faulty in regard to medical matters, there were good grounds for suspicion in regard to all the medical bodies of the country.

It is unnecessary to pass in review all the utterances of Dr. Acland before the Committee, as summarised in our issues of last week and of to-day. We need not say that in some points where he indicated a definite opinion we are in accord with him, as in his opposition to any considerable increase in the number of members of the Council, and to the proposals for direct representation. We have already expressed opinions on many of the points, and shall have frequent opportunities again to indicate our views on the various questions that arise as the evidence before the Committee accumulates.

THE WEEK.

DEATH OF PROFESSOR NEUBAUER.

The well-known joint author with Professor Vogel of "An Introduction to the Qualitative and Quantitative Analysis of the Urine," a work translated in 1868 by Dr. Markham for the new Sydenham Society, died at Wiesbaden on June 2.

OBSTETRICAL SOCIETY OF LONDON.

In order to increase the time for the adjourned discussion on "The Use of the Forceps and its Alternatives in Lingering Labour," no specimens will be shown at the meeting on July 3, but the debate will be recommenced as soon as the minutes, etc., have been read.

MEDICAL EDUCATION.

On Wednesday evening a meeting of the Metropolitan Branch of the British Medical Association, convened by special circular, was held, and largely attended, in the rooms of the Medical Society. Many members of the profession were invited, for the subject to be discussed was that of medical education, and that concerns us all. The meeting was opened by an address from the President, Dr. Andrew Clark, able and eloquent as all his speeches are, but leaving the matter to be brought before the Society somewhat vague. This was felt all through the evening, for, there being no sound basis on which to work, the speaking was of the most desultory kind. This could easily have been remedied had any definite programme been laid down beforehand; but such was not the case. At the conclusion of the meeting there was a Committee appointed to consider the matter, to collect evidence, and to report; but the Committee is far too large for good work to be done, and no good can come of discussions which consist mostly of platitudes. Something definite should be made the subject of debate at the adjourned discussion, to be resumed in a fortnight's time.

COLLEGIATE ELECTION.

The following are the names of the eligible Fellows who are candidates for seats in the Council of the Royal College of Surgeons at the annual election on Thursday next, July 3, at two o'clock, viz.:—1. Mr. T. Spencer Wells, of Upper Grosvenor-street, for re-election. 2. Mr. Richard Barwell, of George-street, Hanover-square, Surgeon to the Charing-cross Hospital, nominated by Sir Joseph Fayrer, and Messrs. Hird, Heath, Bellamy, Cadge, and Godlee. 3. Mr. Thomas Bryant, Upper Brook-street, Surgeon to Guy's Hospital, nominated by Sir Henry Thompson, and Messrs. Cock, Hutchinson, Heath, Smith, and Husband. 4. Mr. John Wood, F.R.S., Wimpole-street, Surgeon to King's College Hospital, nominated by Messrs. Hutchinson, Teale, Cadge, Callender, Heath, and Durham. 5. Mr. Henry Power, Great Cumberland-place, of St. Bartholomew's Hospital, nominated by Messrs. Harris, Bartlett, Willett, Macnamara, Owen, and Durham. 6. Mr. Jonathan Hutchinson, of Cavendish-square, Surgeon to the London Hospital, nominated by Messrs. Callender, Bowman, Mac Cormac, Heath, West, and Lister. The above list is according to seniority of Fellowship, but taking the candidates by their standing as Members of the College they appear in the following order, viz.:—Mr. Barwell, Professor Wood, Mr. Bryant, Professor Hutchinson, and Mr. Power.

HOSPITAL SUNDAY FUND.

Up to Monday evening last the total sum received on account of the recent Hospital Sunday Fund collection amounted to upwards of £18,000. It may be surmised, therefore, that the total sum collected will not fall very far short of the amount realised last year. This, however, remains to be ascertained, as the bulk of the money realised is usually paid in during the week succeeding the collection. Considering that nearly every charity throughout the country dependent on voluntary subscriptions has recently suffered more or less from the depressed state of trade, the results of the late appeal must be regarded as satisfactory in one sense, but, as we have more than once pointed out, the highest sum ever obtained through the medium of these appeals is surprisingly small when the wealth and extent of the metropolis are taken into consideration. Moreover, there is not an entire unanimity of opinion on the subject, and many places of worship elect to distribute their collections in their own way, so that it is possible that some of the public charities may be benefited at the expense of the others.

SANITARY DOINGS OF THE BOARD OF WORKS.

At the last week's meeting of the Metropolitan Board of Works, amongst the business brought forward was a recommendation from the Finance Committee that the application of the Vestry of Shoreditch for permission to borrow £10,000 for the purposes of the Sun-street improvement be complied with. The Special Purposes and Sanitary Committee reported that they had divided the metropolis into nine districts for the purposes of inspection under the Slaughter-houses and Explosives Acts, and the Cowsheds, etc., Order of 1879, and had appointed an inspector for each district. A letter was read from the Society of Arts, stating that they had appointed a committee to collect evidence of the state of the house-drainage of London, and requesting that an officer of that Board might be permitted to give evidence as to the sanitary arrangements of the office of the Board. This letter was referred to the Works Committee.

PHILLIPS *v.* THE SOUTH-WESTERN RAILWAY COMPANY.

The Court of Queen's Bench, after having taken time to consider their judgment on the application for a new trial in the case of Phillips *v.* the South-Western Railway Company, last week pronounced in favour of the plaintiff. The Lord Chief Justice, in announcing the decision of the Court, said the jury who tried the case had not given due consideration to the evidence as to damages, and as the Court frequently set aside verdicts in cases where the damages were considered excessive, they felt bound to take the same course where the damages were utterly inadequate. There would, therefore, be a new trial of the case. It will be remembered that Dr. Phillips sustained serious injuries through a collision whilst travelling on the defendants' line, and that the jury who originally tried the case only awarded £7000 damages, although it was proved that at the time of the accident Dr. Phillips' practice was bringing him in not much less than that sum per annum, with prospect of further increase.

OUT-PATIENT REFORM.

Following out their endeavours to check the evils arising from free medical assistance and medicine being given indiscriminately in the out-patient departments of the large London hospitals, the special committee of the British Medical Association last week waited as a deputation upon the Board of Management of the Westminster Hospital. They were received by several gentlemen interested in the affairs of the Hospital, presided over by Sir Rutherford Alcock, who, before the opening of the conference, informed the deputation that the Hospital authorities, who were anxious to do all they could to abate the evils of overcrowding in the out-patient department, proposed to charge a certain sum for medicine to all who came without a governor's letter of recommendation. Mr. Timothy Holmes was the chief spokesman of the deputation, and he repeated the arguments employed in a recent visit to the authorities of the Royal Free Hospital. With regard to the proposed arrangement, spoken of by Sir Rutherford Alcock, for the payment by certain out-patients for medicine, he allowed that this might be tried as an experiment; but, at the same time, he submitted that the payments should not be so small as to make the plan compete with either the provident dispensary system or the practitioners of the neighbourhood, who, at least were as much entitled to consideration as other people. In conclusion, he asked that the numbers in the out-patient department should be so limited as to admit of each case being properly dealt with; that the management should encourage persons to belong to provident dispensaries; that persons who could afford to pay should not have medical assistance gratuitously; and that the poor-law dispensaries should be brought to the notice of those who were fit objects of such relief. The chairman, in reply, promised that all the points placed before them should be considered, as they were anxious to co-operate for remedying the great abuses which undoubtedly existed under the present out-patient system. Later in the week a large and influential deputation, consisting of governors of different London hospitals, had an interview with the Right Hon. R. A. Cross and Sir Matthew White Ridley, M.P., at the Home Office, to ask the Government to appoint a Royal Commission to investigate and report upon the subject of hospital accommodation, the distribution of hospital charity in general, and the indiscriminate relief given to persons who are able to pay for their own medical attendance. Mr. W. E. Forster, M.P., introduced the deputation, and Sir William Gull and Mr. Stansfeld having spoken on the subject, the Home Secretary said he thought the governors of the hospitals had much larger powers in their own hands than they had exercised in respect to the relief of persons able to provide and pay for their own medicines. He would consult with the President of the Local Government Board on the subject, and see what could be done; in the meantime he advised them to set about remedying, as far as possible, without assistance, the abuses they complained of.

CLASSES FOR PRACTITIONERS IN GERMANY.

The movement successfully started at Berlin for giving medical men of some years' standing the opportunity of bringing their knowledge, by means of practical lectures, up to the level of the day, is extending to other universities in Germany. A series of classes has just been held at Breslau; and at Leipsic nearly all the principal professors will take part in a course of lectures for practitioners to be delivered from September 20 to October 20.

THE BOARD OF EXAMINERS, ROYAL COLLEGE OF SURGEONS.

Mr. Holmes has resigned his appointment on the Board of Examiners of the Royal College of Surgeons, but will preside at the Board during the examinations in July.

THE FEMALE MEDICAL QUESTION IN AMERICA.

A correspondent of the *Times*, writing from America, says —"It may be remembered that about a year ago an offer was made by the daughter of Mr. George O. Hovey, of Boston, to pay over $10,000 to the Medical School of Harvard University, out of a fund left by her deceased father for benevolent purposes, on condition that henceforth the educational advantages of the school should be thrown open to women on the same terms as to men. This matter has been under consideration ever since; on May 27 last the Board of Overseers (or University Court) of Harvard came to a final decision upon it. They announced that they felt themselves debarred from advising the acceptance of Miss Hovey's offer, by the fact that the Medical Faculty, after much debate, had voted against it by a majority; but at the same time they put on record the following expression of opinion upon the general question: 'That, in the opinion of the Board of Overseers, it is expedient that, under certain restrictions, women be instructed in medicine by Harvard University in its medical school.' It appears that a short time ago a circular was issued to all the members of the Massachusetts Medical Society, asking their opinion respecting the admission of women to the Society. About 40 per cent. of the members made no reply, but more than 70 per cent. of the remainder were in favour of the recognition of duly qualified women physicians. The Medical Society of Pennsylvania decided last year to memorialise the Legislature in favour of the appointment of women physicians as superintendents of the female wards in the State lunatic asylums, where it is believed that their services will be exceptionally valuable."

THE ARMY MEDICAL SERVICE IN NATAL AND THE TRANSVAAL.

THERE have been grievous complaints as to the inadequacy of the medical service in Natal, and, perhaps to alleviate the painful impression thus produced, a return has been published, signed by Surgeon-General Woolfryes, of the various members of the medical staff, civil and military, with their posts and duties, in Natal and the Transvaal. We have made a kind of abstract, given here below, from this return, which is perhaps more telling than anything else could well be. In one column we have given the officers belonging to the Army Medical Service, in another the "Civil Surgeons," and if anything could show how rotten the Army Medical Department has become, surely this conveys the lesson. Out of a total of ninety medical men attached to the various stations, corps, and hospitals, fifty belong to the Army Medical Department, and forty are Civil Surgeons. And it must be remembered that these are distributed over the whole of Natal and the Transvaal, hundreds of miles apart. When, therefore, we come to reckon up those who are far remote, and attached to forces not exactly available for active service, we find the condition of things to be still worse. We have in Natal and the Transvaal an army, it is said, of some 20,000 men, with drivers, etc., innumerable, and to look after these not only as regards medical and surgical treatment, but also in sanitary matters—some of the medical men, moreover, being devoted to duties which must take them away from the employment which is more strictly theirs—there is a scanty show indeed. We have not included in the above list the Naval Surgeons on duty, as they do not come within the scope of our remarks. But everything testifies that the Army Medical Department has completely broken down, and nothing better shows this perhaps than that the great bulk of those on duty are of the rank of Surgeon-Major: the places which should be filled by the junior members of the Army Medical staff are occupied by civilians; there are only sixteen Surgeons on the list. This cannot possibly be satisfactory to those who have the well-being of our troops at heart.

Principal Medical Officer of the Forces in the Field, Surgeon-General Woolfryes, M.D., C.B.	Civil Surgeon Giles.
Surgeon Gasteen, M.B.	Civil Surgeon Hebb.
Surgeon-Major Hunt.	Civil Surgeon Gunn.
Surgeon-Major Scott, M.D.	Civil Surgeon Jones.
Deputy Surgeon-General Holloway.	Civil Surgeon O'Neill.
Surgeon Connolly, M.A.	Civil Surgeon Cheyne.
Surgeon-Major Wills.	Civil Surgeon Roe.
Surgeon Jennings.	Civil Surgeon Heath.
Surgeon-Major Leslie.	Civil Surgeon Greer.
Surgeon Wallis.	Civil Surgeon Bevis.
Surgeon-Major Ashton, M.B.	Civil Surgeon Scott.
Surgeon-Major De Hodgson.	Civil Surgeon Ryley.
Surgeon-Major Lamb.	Civil Surgeon Jennings.
Surgeon Ash.	Civil Surgeon Wood.
Surgeon-Major Robertson.	Civil Surgeon Apthorp.
Surgeon-Major Babington.	Civil Surgeon Hyde.
Surgeon-Major Ward.	Civil Surgeon Linden.
Surgeon-Major Hickson.	Civil Surgeon Gordon.
Surgeon Heather.	Civil Surgeon Boomer.
Surgeon-Major Fitzmaurice.	Civil Surgeon Linden.
Surgeon-Major O'Reilly.	Civil Surgeon Brannigan.
Surgeon-Major Wallace.	Civil Surgeon Burton.
Surgeon Thornton.	Civil Surgeon Wilson.
Surgeon Landon.	Civil Surgeon Jones.
Surgeon-Major Tarrant.	Civil Surgeon Birwood.
Surgeon Ritchie.	Civil Surgeon Reed, M.D.
Surgeon-Major Girand.	Civil Surgeon O'Neill.
Surgeon-Major Boulton.	Civil Surgeon O'Callaghan.
Surgeon-Major Edge, M.D.	Civil Surgeon Beresford.
Surgeon-Major Kilroy.	Civil Surgeon Busby.
Surgeon-Major Dudley.	Civil Surgeon Gubbins.
Surgeon Harding.	Civil Surgeon Wardrop.
Surgeon Wilson, M.D.	Civil Surgeon Reynolds.
Surgeon Jagoe, M.B.	Civil Surgeon Connolly.
Surgeon-Major Semple, M.D.	Civil Surgeon Jolly.
Surgeon-Major Bourns.	Civil Surgeon Glanville.
Surgeon-Major Robinson.	Civil Surgeon Kay.
Surgeon-Major Comerford.	Civil Surgeon Moir.
Surgeon Anderson.	Civil Surgeon Johnston.
Surgeon-Major Townsend, M.D.	Civil Surgeon Thistelton.
Surgeon-Major Reynolds, M.B.	
Surgeon-Major Stock.	
Surgeon-Major Smith.	
Surgeon-Major Elgee.	
Surgeon-Major Cuffe.	
Surgeon A. L. Brown.	
Surgeon D. B. Brown.	
Surgeon-Major O'Reilly, M.B.	
Surgeon-Major Johnston, M.D.	
Surgeon M'Gann.	

NORMANSFIELD.

THE WORKING-OUT OF A SOCIAL PROBLEM.

ON Saturday last, the 21st and longest day of June, the Earl of Devon presided at a ceremony, which, though private, is well worthy of public notice. This was the completion of a scheme which will recommend itself to all lovers of humanity, undertaken and carried through single-handed by Dr. Langdon Down. As Dr. Down tells the story himself—many years ago he was attracted by the sad condition of an idiotic or semi-idiotic young woman who was acting as waitress in a country inn. The question he put to himself was this: "Can nothing be done for such as she?" and the thing rankled in his mind. When yet a student he determined to do what he could for that most unfortunate class, those considered merely "soft or silly." But more, he conceived the idea that there were many of a group between those absolutely incapable of receiving an impression, and those, namely, who by careful training might yet be led to become tolerably reasonable, if well guided, members of society. And to this object it may be said that Dr. Down has devoted his whole professional life. With what result we shall see.

But as we write this an old remembrance of more than thirty years comes over us. There were two families in a small and remote borough, one well-to-do, the other the poorest of the poor. In the former family there were three sisters in different degrees of imbecility; one never could be allowed out of her room without attendance, another a little better, and a third a shade better still. Of not one of these could it be said that they were idiots, but that they were of weak mind from their birth was plain. The other family lived in such a hovel as we hope may never now be seen. Most of the children were deaf and dumb; some were, besides, idiotic. By liberal exertion on the part of neighbours several of these were removed to a deaf-and-dumb school. Of these certain came back improved, others better in certain respects as to cleanliness and the like, but, as regards their wits, not much quicker than before they left. Another, the eldest, was the "town fool," who, however, had art enough to know who was kind to him, and was left at large, until, growing big and muscular, a man of great size, he, on being attacked by boys, defended himself rather too vigorously, and was sent first to a prison, and then to an asylum.

These brief reminiscences will give some an idea as to the position of such unfortunates. Eternal imprisonment in a room, except when some one was at liberty to go out for a walk with the unfortunate, treated, however, as well as could be under such conditions: or wandering about the country, scarcely heeded, never cared for except offending against the laws—left to scramble through the world. But the days of asylums came, and these poor "failures of nature" were gathered into great groups, mixed up with all sorts of demented people—with monomaniacs of every kind and variety. It is at this point that we begin to estimate the value of Dr. Down's labours. His idea was that to mix up together those who were congenitally deficient intellectually with those who had after a certain experience of the world become insane, was a mistake. That the feeble-minded might be trained, to something better, but not by association with those who had lost their own reason. This was his work at the asylum at Redhill, but a gap remained to be filled up—that between the two groups we have mentioned already as illustrated by old experience. The "town fool" could be sent to an asylum; the other poor creature would most probably, for the family's sake, be kept at home till he or she died; for him or her there was no remedy. They might be visited from time to time by the Lunacy Commissioners, but if, as was always the case, they were well looked after, what could the Commissioners say or do?

Dr. Down's idea went farther. He believed that many of those commonly called "weak-minded" might be greatly improved, and that for the group between those totally imbecile or idiotic, and those of comparatively sound sense, there were many who by careful training might be placed on quite

a different footing on the ladder of life. He gave up Redhill, and set himself to work at Hampton Wick. The first beginnings were not great, but they were built on a solid foundation. A half-finished house was purchased, and the work begun. Dr. Down held that to bring weak-minded children forward there was only one means—*personal influence*. Accordingly, a staff of attendants and teachers combined in one was most carefully selected under the supervision of Mrs. Down, who has shown herself to be most capable of organising, controlling, and superintending an institution of this kind, which without such control and superintendence would be but *un coup manqué*.

At all events, Dr. Down has at last attained his ideal: he has acquired an establishment where everything which he could have idealised has been realised, and where even now an ample measure of well-deserved success has accrued to him.

THE SELECT COMMITTEE ON THE MEDICAL ACT AMENDMENT BILL.

The second meeting of this Committee took place on Friday, the 20th inst., and was wholly occupied with the adjourned examination of Dr. Acland. He thought that the minimum standard of proficiency had been decidedly raised through the action of the General Medical Council, in respect of some of the licensing bodies, while in others there had been little change. The whole status of medical men had, for various reasons, greatly improved in recent years. Many persons now saw the practical importance of the principle of uniformity for the minimum qualifications, who were formerly opposed to the principle, and he (Dr. Acland) could not conceive that the adoption of a uniform minimum standard would possibly impede the upward tendency of professional education. The Conjoint Scheme did not propose to throw upon the Council any duties beyond its present sphere of action. He declined to say officially whether it was not uncommon for students to obtain qualifications without having attended the prescribed courses of lectures, but his own belief was that the neglect of the lecture-room by students was now a rare occurrence. He did not think that the Medical Council was called upon to institute any direct and immediate inspection of the routine work of the medical schools, though he admitted that official interference in this matter might be desirable. He explained that the Council had improved the education of medical students by forwarding to the teaching bodies recommendations, which almost invariably received attention. One important change in examinations, the more general adoption of which by licensing bodies was due to the action of the Council, was the practical testing of candidates at the bedside of patients; but Dr. Acland thought the large number of the candidates must render the introduction of clinical tests in the examinations for every qualification a slow and gradual process. Personally he was in favour of the Conjoint Scheme. The principle of combination was first admitted and carried out in Scotland, so that the objection to it in that country could not be universal. The opposition to it, he thought, was not so much in respect of the principle, as in respect of matters of detail regarding the extent of its adoption and manner of administration. He admitted that if the Scotch universities were represented by as many members as the English ones, the numerical influence against the Conjoint Scheme in the Council would be considerably increased: but he was not in favour of such a change in representation. With regard to registered practitioners, he admitted that it not infrequently happened that a person who held a licence only in medicine, or in surgery, practised both these departments; but the question of the legality of such procedure he thought it was beyond the function of the Council to pronounce upon. Dr. Cameron then cross-examined Dr. Acland in reference to medical matters at Oxford, on which subject the answers were most vague and evasive. When asked whether any lectures on medicine, or any clinical teaching, could be had by students at Oxford, Dr. Acland replied that an answer to these queries had been furnished by himself last year. To Dr. Cameron's inquiries as to the actual existence of any regular medical school at Oxford, and as to the number of professors attached to the Medical Faculty, Dr. Acland replied by asking what was meant by the terms "regular medical school," and "Medical Faculty." He gave an account of the arrangements available for the preparatory instruction of the would-be medical student at Oxford, and admitted that no facilities existed for the practical study of disease. But a high class of students could begin their studies at Oxford, and thence proceed to other medical schools, and he thought that it would be very unwise to disturb the existing condition of matters at Oxford. When asked by Dr. Cameron whether Oxford had any professor of anatomy, Dr. Acland again became evasive, saying there were two "anatomies," surgical and philosophical, and that the latter was included in the biological work of the University. Dr. Cameron was promised a statement to show the number of students at Oxford actually registered as medical students, the number of graduates practising with only an Oxford qualification, and such-like interesting particulars. Dr. Acland, replying to Dr. Lush, thought that the eminence of the members of the Medical Council did not prevent them from fairly representing the body of general practitioners, and was not aware that the bulk of the latter wished for direct representation. He himself was opposed to the appointment of members by general election. In answer to Mr. Wheelhouse, he said that he thought it unlikely that the adoption of the Conjoint Scheme would necessarily affect the receipt of fees by the different bodies. He approved of the suggestion that the Council might contain representatives from the Army and Navy, nominated by the Crown. Replying to Mr. Serjeant Simon, Dr. Acland said he was aware of the fact that some persons in the higher ranks of society sometimes consulted herbalists rather than legally qualified men, and he was not prepared to suggest any interference with the liberty of the subject in this direction. He would, however, prevent a herbalist from calling himself a duly qualified practitioner.

At the third meeting of the Committee, on Monday, the 23rd inst., the only witness examined was Mr. John Simon, President of the Royal College of Surgeons of England, and formerly Medical Officer of the Privy Council. The first portion of his evidence referred to the history of the Medical Acts. He pointed out that the Act of 1858 had been denuded of several very important provisions proposed in the original form of that measure, viz., the granting power to the Medical Council to define conditions of qualification, and to compel combination of licensing bodies. Moreover, the decisions of the Council were to be of a determinative or executive character, whereas by the Bill, as it passed, the Council could do no more than issue recommendations to the medical bodies. Dr. Parkes, in 1867 and 1868, pointed out that, at the entrance examinations to the medical services, many candidates possessing legal qualifications were found to be grossly ignorant of essential professional knowledge. About that time the Council appointed an Educational Committee, with Mr. Syme as chairman. They reported that the inequality of the various licences was a pressing evil, as one or two boards with low standards tended to depress all the others; and they strongly advocated the adoption of a Conjoint Scheme for the corporations, excluding the universities from the proposed combination. This led up to Lord Ripon's Bill of 1870, the history of which Mr. Simon detailed. The Bill, he said, passed the Lords, but failed to pass the Commons on account of the lateness of the session, and the introduction of the question of direct representation. In the present Bill, the clause which in the earlier measure left freedom to the universities to grant the higher degrees in medicine to properly qualified candidates, is entirely omitted. The Scotch and Irish opposition to the Conjoint Scheme was not so strong in 1870 as at the present time. The Scotch universities dread that their prestige will suffer by the adoption of a low examination standard, but he (Mr. Simon) thought they were protected by the liberty they would possess of claiming from the candidates seeking their degrees such a degree of proficiency as they may deem desirable. The witness promised to hand in a report of the propositions of the Medical Council in regard to the registration of colonial and foreign qualifications. Mr. Simon was opposed to the adoption of direct representation of the profession in the Medical Council. Under such a system the Council would be likely to contain members of an intellectually inferior order to those holding seats at

present. The internal reform of badly managed institutions would, he thought, redress many grievances. Much error prevailed, Mr. Simon said, regarding the functions of the Medical Council. It was not a judicial reformer, and its scope did not extend beyond the education and conduct of the student and practitioner. No real good, he thought, would accrue from constituting the Council as a kind of medical parliament with absolute powers, and he did not think it should discuss general, medico-political, or sanitary questions. Men of eminence could not give the time that would be necessary for this. Replying to Mr. Mitchell-Henry, he said he thought the representation of Ireland and of Scotland on the Council was fairly adequate. The question of direct representation which had been the chief means of wrecking Lord Ripon's Bill, was raised and agitated by the British Medical Association. He could not see that any good would result from a moderate representation of the Association as such. He admitted that it was possible that much of the discontent as to representation arose from the fact that the members of the Council were in many cases chosen by close or limited electoral boards. The witness explained, in answer to Mr. Wheelhouse, that universities differed from such institutions as the metropolitan medical schools, in that the former were not merely teaching bodies, but had also the power of granting degrees, while the latter were private adventures for teaching purposes only. He (Mr. Simon) was not in favour of allowing the universities to have the power of granting degrees apart from teaching. He was being questioned as to his views on this subject when the Committee rose.

The next meeting takes place to-day (Friday), when Dr. Quain will be examined after Mr. Simon's evidence is concluded.

FROM ABROAD.

Retro-sternal Suffocative Goître.

M. Duplay recently (*Gaz. des Hop.*, May 6 and 8) delivered at the St. Louis a clinical lecture on this subject. A woman, fifty-eight years of age, had observed for more than twenty years a small indolent tumour at the right side of her neck just above the sternum. About six months ago, while still continuing indolent, the tumour rapidly increased in size, an gave rise to such difficulty of respiration as to induce her to come to the hospital. When admitted the tumour was found to be about the size of an egg, and covered by the infra-hyoidean muscles. It was not adherent to these and the skin, but some prolongations which extended into the mediastinum had contracted adhesions. It was hard and without fluctuation. It participated in the movements of elevation and depression of the larynx, but this organ as well as the œsophagus was unaffected. Great dyspnœa was induced by any exertion, and even without this the respiration was considerably embarrassed. The tumour was pronounced to be due to an enlargement of the right lobe of the thyroid gland. On account of the age of the patient, and family antecedents, the tumour was deemed to be possibly scirrhus; but cancer supervening on slight hypertrophy of the thyroid of so many years' standing is a rare occurrence. The uniform solid consistency of the tumour, and especially its absolute indolence, also militated against the idea of malignancy, as cancer of the thyroid is remarkable for the severity of the neuralgic pains which extend to the cervical region and to the arms. The woman, moreover, was in good health and not emaciated.

The disturbance of the respiratory organs observed in suffocative goître may depend upon different anatomical conditions. The gland, in place of being situated at the anterior part of the neck, may embrace the larynx and trachea like a ring, so that when it exerts fibrous retraction consequent on hypertrophy, the laryngo-tracheal tube may become constricted as by a ligature. But this is a rare occurrence. Another form, of which this patient seems to offer an example, and which is described as *goître plongeant*—internal goitre, or, more properly, retro-sternal goître—is sometimes very difficult of diagnosis, in consequence of the whole of the tumour being placed behind the sternum. But ordinarily, as in the present case, the tumour is to a certain extent apparent above the sternum and sterno-clavicular articulation, sending a prolongation behind the sternum. It may be asked how so small a tumour, and so little fixed and immovable, can give rise to such serious functional disturbance by the compression it exercises on the neighbouring organs; and, in fact, in small retro-sternal goître this is a phenomenon somewhat difficult of interpretation, even with the aid of an autopsy. The most probable supposition seems to be that, when the goître is situated quite at the upper extremity of the thorax, it tends, by virtue of a kind of aspiration which takes place at the moment of inspiration, to insinuate itself into the anterior mediastinum, where, opposed by the sternum as a barrier, it presses on the trachea, producing permanent disturbance of respiration, which is increased when the respiratory movements are multiplied. This disturbance may suddenly acquire great gravity, and even prove rapidly fatal. But this accident, instead of being attributed to the production of congestion of the glottis, as it sometimes has been, is more probably due to the compression exerted either on the recurrent nerves, especially the right, or on the pneumogastric itself.

The prognosis of the affection is of great importance. In this case, in which the tumour only determines moderate dyspnœa, the patient may yet be carried off very rapidly, without the tumour having increased in size, or having undergone any modification whatever. A vivid moral emotion might determine a suffocative paroxysm, although such a termination is a rare one. What is more common is to find the dyspnœa progressively increasing, and then, after awhile, to see suffocative paroxysms supervene, which, after having recurred a certain number of times, finish by proving fatal. And even if the suffocative paroxysms are delayed, we may find, if the tumour continues to increase, other functional disturbances produced in connexion with the œsophagus, the vessels, or nerves.

Before speaking of the treatment which should be adopted in these cases, Dr. Duplay cautioned his hearers against the dangers which result from a too ready surgical intervention in tumours of the thyroid body. Whatever the diagnosis may be that has been formed, these affections must not be meddled with until absolutely forced to it by the progress of the disease or the instances of the patient. Slight as the operation may be that is performed in this region—even a simple puncture with the exploratory trocar—the patient may be killed by it. Of this M. Duplay has seen numerous instances. In the present case, in which the accidents have not acquired a very great intensity, general treatment may be first tried, this consisting chiefly in the employment of preparations of iodine. Most excellent results are obtainable from these in young subjects, and when the affection has been treated by them from the first. When the symptoms become more menacing, surgical interference must be resorted to. Some surgeons, especially Bonnet, regarding the dyspnœa as due to the construction produced by the infra-hyoidean muscles, have divided these, but with no satisfactory results. Another operation by Bonnet, which sometimes succeeds, consists in the displacement of the thyroid and cauterisation. The object of this operation is the raising the tumour and the prevention of its exercising compression on the trachea during the aspiration which accompanies inspiration. Bonnet passed three or four solid pins under the skin immediately behind the sternum, transfixed the corresponding portion of the hypertrophied thyroid, and brought out the points of the needles on the opposite side, curving them so as to fix the tumour in a permanent manner. To maintain it thus he applied the Vienna caustic, which destroyed the skin, subcutaneous cellular tissue, and even a small portion of the tumour. During cicatrisation, cohesion took place between the hypertrophied thyroid and the integuments. The interstitial injection of tincture of iodine, without being more dangerous than the preceding method, has the inconvenience of inducing primary inflammatory augmentation of the dimensions of the tissues before their eventual retraction can be secured. The removal of the thyroid, heretofore reputed so dangerous an operation, has been revived in England, Germany, and America with considerable success, the mean mortality only being one in three

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 3.

JOHN BIRKETT, F.R.C.S., Vice-President, in the Chair.

ON THE PATHOLOGY OF LUPUS, WITH SPECIAL REFERENCE TO THE APPEARANCES DESCRIBED AS "GIANT CELLS."

DR. THIN read this paper. He said he had prepared and examined portions of lupus tissue obtained from a case treated by excision by Mr. Morrant Baker at St. Bartholomew's Hospital, with special reference to several points in the pathology of the disease to which attention has been lately directed. The author found in this case confirmation of the views of Friedländer and Thoma in regard to the mode in which the cell-infiltration and the destruction of tissue proceed. Groups of cells accumulate around certain bloodvessels as so many centres, each group constituting a nodule, the different nodules enlarging and finally coalescing. The disease extends by travelling along the bloodvessels, and the nodules form most conspicuously in the most vascular parts, namely, amongst the sebaceous glands, hair follicles, sweat glands, and in the papillary layer. The sweat glands were carefully examined with a view to determine whether evidence of epithelial growth (as has lately been described by Professor Lang, of Innsbruck) could be found, but with a negative result; all the changes observed consisting in different phases of progressive destruction of the gland cells as the lupus infiltration becomes denser. The condition of vitreous swelling and degeneration of the vascular coats as described by Professor Lang was observed, both in sections and in isolated vessels, but no evidence of growth of the capillary wall as a source of lupus infiltration was obtained. The first lupus cells are found immediately external to the bloodvessels, and, as regards size and appearance, have much similarity to colourless blood cells. As the nodule forms these cells become larger, and undergo some chemical change, as the contents of the nodules stain differently from the cells in the earlier stages. The author thus agrees with Thoma in considering that exuded white corpuscles are the probable source of the cell-infiltration. The appearances described by Friedländer as "giant cells" were analysed in the paper. Nodules of the sizes and forms described by that observer were found, and identified as being similar to the elements so described by Schüppel and other writers as characteristic of tubercle, but the author could not find any evidence that they were elements of a new growth, or that they were developed from epithelioid cells. On the contrary, he had traced them backwards through connected stages to changes in the bloodvessels and their contents. The granular contents of the so-called cell were the products of disintegration of red blood-corpuscles, which first became wedded into a homogeneous mass, this mass eventually becoming granular. Stages in which unaltered red corpuscles were still found in the mass, and in which the mass was only granular at some parts, could be found on the periphery of the diseased area; a characteristic eosin-staining persisting uniformly throughout these changes. The peripheral nuclei of the "giant cell" could be traced to the endothelium of the intima; and the nuclei which were more rarely found in its centre were identical with those of colourless blood corpuscles. The processes of the "cell" were connective-tissue elements connected with the adventitia of the vessel. The coats of the vessel appeared to have been disintended at the affected part, the "cell" being sometimes traceable as continuous with a bloodvessel of much narrower calibre. Different "cells" were connected by strips of vascular wall. The author succeeded in isolating a cast of a portion of a vessel which was composed of a granular substance containing a few white corpuscles, and which had the optical and staining qualities of the so-called protoplasm of the "giant cell." He then pointed out that the giantcell of lupus and tubercle is not identical with the giant cell of the sarcomata, granulation tissue, etc.; the latter element not being connected necessarily with a bloodvessel, and finding its type in the *myélo-plâque* of young bone. Although the "giant cells" of lupus and tubercle are identical objects, it does not therefore necessarily follow that the diseases are of a similar nature, as the primary cause of the affection of the walls of the vessel may not be the same in each instance. In regard to lupus, the evidence seems to point to the origin of the disease in the vessel itself, which is sufficient to account for the cell-infiltration, the molecular disintegration of the fibrillated connective tissue and glandular elements, and the mode by which the morbid process extends.

Mr. HOLMES was struck with the reasoning of Dr. Thin that the giant cells were due to changes in the bloodvessels, and that, further, their spread was due to these. This would agree with modern views on therapeutics. He believed in the local nature of the disease. Formerly it was thought to be constitutional, and was treated accordingly; now it was held that the local destruction of the disease was best.

Mr. GASKOIN asked if we were to hold that giant cells were the essential part of the disorder? If so, what about the tubercles on the surface?

Dr. THIN, in reply, said that the pathology seemed much as indicated by Mr. Holmes. By tracing the vessels, they were apparently found diseased in what seemed healthy structures. Giant cells appeared to be only an acme of the process. Before they were found, the disease was already advanced.

OPERATION FOR RELIEF OF LONG-STANDING HYPERTROPHY OF THE PROSTATE.

Sir HENRY THOMPSON read a paper giving a description of an operation for the relief of patients who suffer severely from long-standing hypertrophy of the prostate, or from vesical tumour with retained urine. The author asked whether, when the patient had long ceased to pass urine by his own efforts, and had to pass the catheter with great frequency and often with pain and difficulty, it might not be desirable to place a tube *en permanence* in the bladder, making an opening above the pubis for the purpose. This might, he thought, be done safely and simply, since there is a route into the bladder, by means of a staff, as in the "high operation" for stone. But as in these cases the bladder was usually small and contracted, it was to be opened rather behind than above the symphysis pubis, so as to make certain of not injuring the peritoneum. This might be done without difficulty by following the instructions laid down. The author had applied the proceeding only in very extreme circumstances, with the view of rendering the short remains of a closing life tolerable—in three cases for hypertrophied prostate, in one for cancer, and in one for villous tumour,—and he suggested that it might be desirable to adopt such a procedure in some instances at a somewhat earlier period in the history of such cases.

TUMOUR OF BLADDER REMOVED BY PERINEAL INCISION.

Professor HUMPHRY communicated a case as above. A man, aged twenty-one, was admitted into Addenbrooke's Hospital in September, 1877, with frequent painful micturition, accompanied by great straining; there was blood in the urine, with pus and crystals of oxalate of lime. The sound gave only negative information. The symptoms were of about two months' duration. A mass could be felt apparently in the bladder. The sufferings being extreme, Professor Humphry made an incision into the bladder as for the lateral operation for lithotomy, and found a firmish tumour with a ragged surface attached by a pedicle to near the orifice of the right ureter. Partly by the finger and partly by forceps the pedicle was torn through, and the tumour was extracted with lithotomy-forceps. The root of the pedicle was scraped out with the finger-nail. After a day or two of comparative ease, the pain returned with great severity, requiring the injection subcutaneously of morphia, which had to be increased to large doses, and continued for more than two months. Then the pain diminished, and gradually subsided; the wound healed, and the patient completely recovered, and was quite well eighteen months after the operation.

Dr. KNOWSLEY THORNTON suggested that supposing the incision made in such a case as that related by Professor Humphry was too small for the exit of the tumour, an incision into the peritoneum and pressure made from behind the bladder might be employed. This would be safe if done antiseptically. In some cases it might even be feasible to open the bladder from behind or above through the peritoneum. In his own cases he had seen the intestines torn and the bladder injured without any bad results following. The first thing was to

render the urine aseptic; and this was best done by quinine. Thus the whole thickness of the growth, which commonly started from near the orifice of the ureters, might be removed. A clean cut would leave a better cicatrix than a ragged injury.

Dr. KEYES, of New York, said he would put on record a case additional to those given by Sir Henry Thompson. He had a patient, a gentleman over sixty, in whom catheterisation became almost impossible from pain. He opened the bladder above the pubes without the aid of a director. A tube similar to that used for tracheotomy, but longer and with a smaller plate than that shown (it had also a universal joint), was introduced with great relief. This tube was worn for over nine months, when the patient died from other causes.

Mr. TEEVAN said that, in his opinion, when a man was condemned to the constant use of the catheter he was doomed to die. In all such cases the duration of life was shortened. We should rather try to remove the cause which necessitated such instrumentation. The obstruction was mainly mechanical, and growths can be removed with no great risks. This had often been done by Mercier in Paris. In his opinion, the best and nearest way to the bladder was by the rectum. By opening that the surgeon could both examine and remove the growth.

Mr. HOWES would protest against opening the peritoneum when unnecessary, for the urine was nearly always septic, and everything depended on rendering it aseptic. This it was not easy to do, as the ureters were often dilated, and the septic urine extended into them, where it could not be reached by injections. He did not think it necessary to open the peritoneum, for the bladder might be injected and made to rise well above the pubes, where it was easily reached and the finger or écraseur could be introduced.

Mr. T. SMITH asked whether, as it was not always easy to introduce the instrument, it would not be better to inject fluid. His experience of the supra-pubic operation was considerable, he having a fancy for it, especially when the prostate was large or had been injured.

Sir H. THOMPSON, in reply, said that in the prostatic disease of old men anything like a polypoid condition of the middle lobe was never seen. Generally the mass was large and shapeless, which it would be impossible to remove. He was not aware of a single case where such a polypoid growth had been removed with success. Sometimes both a stone and a portion of the prostate might be removed in lithotomy, but in only one case had he seen any benefit arise. For his own part, he did not take Mr. Teevan's gloomy view of catheterisation. It did not greatly shorten life, and he could give many cases in support of this view. He had examined great numbers of patients at the old Seamen's Hospital at Greenwich, and in other places, and the average age at death was seventy-three, whilst in those who used the catheter it was seventy-two years and a half. We should therefore be guarded in having recourse to such strenuous measures as those which had been suggested. It was far better to open the bladder above the pubes. There was no novelty in operating in this way; the novelty lay in operating whilst the urethra was still pervious and an instrument could be introduced. As regards Professor Humphry's case, it was exceedingly rare to find such a tumour. The ordinary growths were cancer, encephaloid, epithelioma, not one of which could be interfered with; and villous growths were rarely single. There were only two other specimens such as this, as he believed, to be found in the London museums. In point of fact, such tumours were among the rarest of morbid growths.

TUESDAY, JUNE 10.

JOHN E. ERICHSEN, F.R.S., President, in the Chair.

THE MOVEMENTS OF THE EYELIDS.

Dr. GOWERS read this paper, the object of which was briefly to consider some facts regarding the movements of the eyelids, a subject that has received little systematic consideration. The author said that under normal conditions the lids leave the corner approximately uncovered in all positions of the eyeball, moving with it. For these movements, and for the voluntary closure and opening of the lids, there are only two muscles, the orbicularis and the levator. These will not explain all movements, and it is probable that the eyeball itself moves the lids, not by the conjunctival connexion, but by the pressure of the convexity of the sclerotic, and to a less extent of the cornea; the edges of the lids lying in or near the sclero-corneal sulcus. This effect is greatest on the upper lid, partly because the tarsal cartilages are attached at their extremities below the transverse axis of the eyeball. The eyelids are moulded on the globes, the shape of the palpebral fissure depending on the position of the eyeball, and being curiously altered in some abnormal lateral positions. In closing the eyelids gently, the lower lid is raised by the palpebral orbicularis; in rotation up of the globe, the lower lid is raised not by the orbicularis, but by the pressure of the globe, and the movement is slight if the globe is very prominent. Depression of the lower lid in looking down is by the pressure of the cornea. The upper lid is maintained in position by the balance of tone between the levator and the orbicularis; if the latter is paralysed, the lid is a little higher than normal. The descent of the upper lid, in looking down, is not by contraction of the orbicularis (for it is unaffected in facial palsy), but is by the pressure of the sclerotic against the tarsal cartilage. The lid is raised, on upward rotation of the globe, by the levator, the contraction of which, if sudden, is excessive. With this is associated a synergic action of the frontalis; the latter is sometimes habitual, and then is relaxed with the levator on looking down. The action of the levator, associated with that of the superior rectus, is beyond voluntary control, and, in the simulated ptosis of hysteria, necessitates a strong contraction of the orbicularis to keep the lid down, if the patient is made to look up. The associated relaxation on looking down prevents almost all voluntary contraction of the levator in that position. Gentle closure of the lids, as in sleep, is by the palpebral orbicularis; the levator being relaxed, the recti passive. Forcible closure is by the whole orbicularis, the levator being relaxed and dissociated from the superior rectus, which contracts, rolling the globe up. Hence probably the centre for strong closure of the eyelids is physiologically distinct from that for their gentle closure. If the orbicularis is paralysed, the associated inhibition of the levator still occurs on an attempt to close the lids; but if the inferior rectus is paralysed, a fruitless attempt to rotate the eyeball down is not attended with inhibition of the levator. This phenomenon, of which photographs were shown, is difficult to explain. Possibly this relaxation of the levator is not the result of a central mechanism, but is reflex from the commencing tension on the fibres, and so does not occur if the globe does not move. If so, the fact is of much interest in relation to the mechanism of other movements in the body. Lastly, it was pointed out that the eyelids commonly participate in the movements of the eyeball in vertical nystagmus.

Dr. BUCHANAN BAXTER referred to a kind of movement in exophthalmic goître which had not been mentioned. It was called "Graefe's disease," and in it the eyelids did not follow the eyeball downwards. This was not due to any closer adhesion of the eyelid to the eye, for he had seen it where there was no exophthalmos in Graves's disease. This Dr. Gowers had had no opportunity of observing.

OPHTHALMOSCOPIC APPEARANCES IN THE TUBERCULAR MENINGITIS OF CHILDREN.

Dr. GARLICK, in some observations on this subject communicated by Dr. Gowers, said that the ophthalmoscope discloses changes in the optic discs of about 80 per cent. of the children who die of tubercular meningitis. These changes fall under one of two heads, viz., optic neuritis or distension of the retinal veins alone. As the discs vary physiologically in different individuals, and even in the same person, the two are often not alike; progressive change is better evidence than can be obtained from a single examination. In a small proportion of cases the optic changes appear very early in the course of the disease, and enable a diagnosis to be made when the other symptoms are equivocal. This is the case when the meningitis is seated chiefly about the optic commissure. But the ophthalmoscopic changes are an important factor in the diagnosis in a much larger number of cases. The two forms of disc-change, viz., optic neuritis and distension of the veins, appear related respectively to meningeal inflammation and pressure. The intracranial pressure may result from excess of ventricular or of sub-arachnoid fluid, and gives evidence of its presence in the anæmia of the cranial contents. The palsy of the limbs is mostly found on the side opposite to that hemisphere of the brain which presents that greatest meningeal affection. No such definite relation exists with regard to the optic discs.

In many cases of tubercular meningitis which run an indefinite course, especially those which are secondary to some other advanced disease, the optic changes share the indistinctness of the other symptoms. The ophthalmoscope countenances the idea that some cases of tubercular meningitis recover; even in fatal cases a temporary improvement may occur in the discs. Tubercles of the choroid appear to be an uncommon complication.

Dr. COUPLAND could confirm the great rarity of tubercle of the choroid, though Cohnheim had said it was common in tubercular meningitis.

Dr. GOWERS could testify to the closeness and accuracy of Dr. Garlick's observations. A point of importance was the relation between the optic neuritis and the sub-arachnoid fluid.

Dr. BARLOW thought the mechanical theory of optic neuritis would have to be given up, and the mischief recognised as directly extending from the brain. He was inclined to associate the tubercle of the choroid with that of the meninges, and the optic neuritis with the intracranial inflammation.

Mr. PARKER asked whether in cases which recovered there was any history of injury. He thought that the so-called tubercular meningitis was generally cerebritis, and that the cases of meningitis which got well were due to injury.

Dr. BAXTER said it was customary at the Evelina Hospital to examine the eyes in all cases of cerebral disease. He had never seen tubercles of the choroid in tubercular meningitis, but had in general tuberculosis without meningitis.

Drs. COUPLAND and BARLOW had always seen these in conjunction with tubercular meningitis.

Dr. GARLICK said there was history of injury in one case which recovered.

CASE OF ABSCESS OF THE BRAIN.

Mr. SAMPSON GAMGEE, of Birmingham, communicated, through Mr. Hulke, a paper on a case as above. The patient was a boy, aged eleven, who was struck on the forehead with a stone on October 21. This caused a small wound, exposing the bone, for which the boy attended as an out-patient at the Queen's Hospital till November 28, when a small scale of bone exfoliated. Pulsation was detected at the bottom of the wound, and the probe passed into a cleft in the bone. No fracture had been detected at the time of the injury. On December 6 it was noted that pus was ejected from the wound when he coughed, and that it came evidently from the cavity of the skull. There were no definite symptoms, except that his hands and feet were cold, and his pulse very feeble. He was kept in hospital till January 1, 1879, and then discharged as cured. The wound was then covered with a small firm scab, and seemed to be healed. In a fortnight (January 15) he was again admitted on account of headache and vomiting, with rapid emaciation. The wound is described as being "a little moist," but no action was going on about it. He was rapidly losing flesh. The temperature was generally normal, but an evening fall of about 1° Fahr. was noted. There was optic neuritis in both eyes. He continued to get worse, shrieking and wandering at night, but there was no paralysis. On January 31 he was trephined by Mr. Gamgee at the seat of the wound, but no pus was found. The inner surface of the bone was slightly eroded, but the dura mater looked healthy, and did not bulge into the trephine-hole. The symptoms were unaffected by the operation. On the following day he quite suddenly ceased to breathe. Mr. Lloyd, the House-Surgeon, found him apparently dead, but, having revived him somewhat by artificial respiration, divided the dura mater in the trephine-hole, causing an escape of about half an ounce of serum, but no pus, and then plunged a knife into the substance of the brain for about an inch, when pus welled up. A director was passed into this puncture and felt the base of the skull. Along this a thin drainage-tube was gently passed, and curled itself up in the cavity of the abscess. The child was nearly dead, but revived with artificial respiration, and survived for a week, dying quite suddenly on February 8. He was in a very weak and critical condition during this time, but was sensible, and had no paralysis, nor any impairment of any of the special senses. Towards the end of his life he had been restless, wandering occasionally, with involuntary defæcation and micturition, and slight twitching, but no distinct fits. An abscess was found in the front lobe of the brain on the right side, nearly two inches in its longest diameter, and containing about an ounce of reddish-brown purulent fluid. It lay chiefly in the white matter of the brain below the convolutions, and had extended through to the exterior in one point, at the base, just in front of the right olfactory lobe. From this point a thick layer of purulent lymph extended through the pia mater for a considerable distance backwards. The brain-substance was much softened around the abscess, and the convolutions flattened.

ON A CASE OF EXCISION OF CANCEROUS STRICTURE FROM THE RECTUM.

Mr. JOHN GAY read this paper. The patient, a lady, aged thirty-seven, was conscious of having suffered for twelve months from symptoms which were clearly those of cancerous stricture of the rectum. In 1878 she consulted the author of the paper, when he discovered a moderately tight stricture formed of cancerous tissue, ulcerated on its internal surface, about two inches and a half from the anus, occupying the seat of what is known as "Houston's third ligament," just above the tip of the coccyx. Defæcation had become difficult, and was often attended with violent straining and the passage of blood or discoloured and offensive sanious fluid. As her sufferings increased and the necessity for colotomy became imminent, Mr. Gay, with the concurrence of Mr. Worley, of De Beauvoir-square (whose patient she was), after ascertaining that the stricture mass had formed no connexions or adhesions with surrounding parts, but was movable amongst them, advised its removal, to which the patient gladly assented. This was done on November 4, with Mr. Harrison Cripps' and Mr. Worley's assistance, in the following manner. It was at first deemed possible to carry out this object somewhat after the manner that nature casts off portions of bowel (viz., by invagination), and with this purpose in view the operation was begun. The rectum was slit up behind to the coccyx by means of a strong bistoury (the patient having been placed under the influence of an anæsthetic by Mr. Cumberbatch), and the bowel reached below the stricture by cutting through the levator ani fascia and its other investments. The morbid growth was then detached from its surroundings by tearing, as well as a ring of healthy bowel both above and below. An attempt was now made to invaginate the diseased bowel into the healthy portion below, but the absence of sufficient elasticity and mobility on the part of the textures concerned stood in the way of its accomplishment. Excision was then the only alternative, and this was done by cutting across the healthy bowel, first below and then above the disease, partly by the knife, and in other parts by the benzine cautery. Some vessels required tying, and other bleeding was stopped by searing. No attempt was made to bring the edges of the wounds together by force; they were simply laid together, and the whole dressed antiseptically. The patient had a very good night's rest after the operation, and was sensibly conscious of having been relieved of the source of her suffering. Nothing untoward occurred for the first fortnight but vesical retention for two or three days, which called for the catheter, and fæcal incontinence, unaccompanied by any pain. From that period to May 10, the date of the last report, her course was chequered. In December she had an acute attack of cystitis. When this had passed away she suffered from frequent and irregularly recurring attacks of abdominal spasms, with or without distension or obstruction, which terminated in severe rectal tenesmus. Under the influence of opiates and hot fomentations these subsided, and for a time passed off, but they did not finally cease until the vertical cleft in the bowel had healed. The surfaces of the cut sphincter were exceedingly sensitive, and it was supposed that these spasms were in some way connected with their rawness. After that, some folds of skin at the verge of the anus becomes ulcerated by fæcal irritation and had to be removed. In the month of January it was found that a diaphragm had formed, by the thickening of submucous areolar tissue, in the neighbourhood of the internal sphincter, with an aperture that allowed the introduction of the forefinger. As the aperture did not appear inclined to become narrower, the barrier was not intentionally interfered with, for with its formation the fæcal incontinence lessened, and the alvine discharges became consistent, and at times hard, so that it was accredited with the design of supplementing the suspended action of the sphincters. In April the patient began to fall away, and symptoms showed themselves which were only consistent with a recurrence of the disease, and on

examination cancerous nodules were found on the os uteri and adjoining vaginal tissue against the intestinal cicatrix, and no doubt could be felt but that they had formed in the cicatricial tissue as well. In May, however, her condition had improved in some respects: she was free from pain, the abdomen was soft, the motions more under control than they had previously been, and she took her food; pain and difficulty in micturition, from which she had suffered during a part of the previous month, had also passed away. The local symptoms, however, were unchanged. The author did not claim this as a successful case, but thought it deserving the consideration of the Fellows, inasmuch as it gave grounds for hoping that the surgery of the rectum had not been exhausted. It showed, first, that the system was more tolerant of severe injury to the rectum than had been suspected, for it bore without resentment the removal of a considerable and entire cylinder from that part of the bowel which closely adjoined the peritoneal cavity. The temperature did not exceed 100° Fahr. at any time subsequent to the operation, and only rose to that point for two or three hours on the fifth day. And, secondly, that nature is quite adequate to their repair. It is admitted, too, that the processes of recovery were protracted and attended with great suffering, but on reviewing its steps and stages by the side of the painful symptoms with which they were accompanied, it is clear, the author thinks, that the troubles were due to the fact that, throughout, nature was deprived of the assistance of art. Had the sundered portions of bowel been brought more closely into apposition, the cleft in the sphincters been immediately reunited, and all portions of superfluous skin removed from the anus, the suffering must have been much ameliorated, the healing less protracted, and the chance of recurrence of the disease to a corresponding degree lessened. The author offered some suggestions for utilising the rectum by slitting it up in cases in which nearer access is needed, for surgical purposes or even exploration, to the higher portion of the rectum, such, for instance, as cases of intussusception, impaction, fistulous passages, polypoid and other growths, ulcers, etc., and, moreover, that in cases of imperforate anus, taking the coccyx as the "land-mark," and assuming that the *cul-de-sac* reaches as far as that bone or below it, the bowel might without danger be entered at that point, and an opening be made from within. The author concluded by trusting that this case, although incomplete and in point of aim, in all probability, unsuccessful, might give confidence for future proceedings in the direction indicated, and that if so it might by its relation conduce to mitigate suffering and to prolong, if not to save, life.

The PRESIDENT doubted whether such an operation as that suggested by Mr. Gay was preferable to colotomy. In true cancer of the rectum, excluding epithelioma, the surgeon could hardly expect to remove the growth so thoroughly as to put a return out of the question. Colotomy was probably simpler, safer, and quite as successful, as far as relieving pain and prolonging life were concerned.

Mr. HARRISON CRIPPS said the so-called cancer of the rectum always began as an adenoid growth in the submucous tissue. The central portion of this sloughed on the surface, giving rise to an appearance like scirrhus, whilst below was the adenoid structure. This was well marked in Mr. Gay's case. In another case the same was seen; here there was return and a second operation, but the patient was now well eighteen months after. A patient of Sir James Paget's, from whom a portion of the bowel had been removed three years ago, was now able to attend to his business in the City.

Mr. HOLMES said there two points to be considered—one the desirability of such an operation; the other, its safety so high up in the rectum. He thought that removing a whole ring of intestine was a novel proceeding, and one likely to give rise to peritonitis, even supposing the peritoneum was not touched. This had been the case in one instance where a rectal tumour was removed. He did not say, however, that such an operation should never be performed. He agreed with Mr. Cripps that the so-called cancer was really adenoid, and not prone to recurrence. Colotomy might even now be performed in Mr. Gay's case.

Mr. HULKE had seen six or seven cases of excision of the lower end of the rectum under the care of Dr. Morgan and Mr. Moore. All died of diffuse inflammation. He would not say that the operation should never be performed; but in most such cases the disease was beyond reach, and colotomy was the best operation to be performed.

Dr. LEARED referred to a case where Mr. Allingham removed a rectal cancer from a gentleman, aged seventy-four. He did well for a time, but the disease soon returned.

This was the last meeting of the session.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN. — SCHOOL OF PHYSIC IN IRELAND.—At the Trinity Term Examination for the degree of Bachelor of Medicine, held on Monday, Tuesday, and Wednesday, June 9, 10, and 11, the following candidates were successful (arranged in order of merit):—

Darling, John S.	Richardson, Gilbert.
Edwards, Henry Grey.	Battersby, John.
MacMunn, John.	Exham, Arthur.
Blood, Fitzgerald.	Hogan, John C.
Lecky, William S.	Williams, John A. De C.

Murray, Andrew.

The following candidates also satisfied the examiners:—

Moutray, Charles, L.R.C.S.I., L.K.Q.C.P.
Warren, Frederick W., F.R.C.S.I., L.K.Q.C.P.

At the examination for the degree of Bachelor in Surgery (B.Ch.), held on Monday and Tuesday, June 16 and 17, the successful candidates passed in the following order of merit:

Edwards, Henry Gray.	Lecky, William Stuart.
Blood, Fitzgerald N.	Moore, Thomas T.
Battersby, John.	Exham, Arthur R. F.
McCreery, Benjamin T.	Malley, Abraham.
Berry, Frederick C.	Smith, Thomas Orde.
MacMunn, John A.	Hogan, John C.

Murray, Andrew.

The following candidate also satisfied the examiners:—

Wheeler, William, Ireland, M.D. and M.B. Univ. Dub., F.R.C.S.I. Surgeon to the City of Dublin Hospital.

After a special examination held on Thursday and Friday, June 12 and 13, the Medical Travelling Prize of £100 sterling, open to all those candidates who have passed the M.B. examination since the Summer Commencements in 1877, was unanimously awarded to John S. Darling.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, June 9, 10, 11, and 12, the following candidates were successful:—

For the licence to practise Medicine—

Cooper, William Reginald.	Ker, Alice Jane Shannan
Folkes, Charles William.	O'Donnell, William.
Jenkins, Stuart.	Poirotte, Benjamin.

Ryan, Thomas Emile.

For the licence to practise Midwifery—

Cooper, William Reginald.	Ker, Alice Jane Shannan.
Cowen, Edward James.	O'Donnell, William.
Folkes, Charles William.	Poirotte, Benjamin.
Jenkins, Stuart.	Ryan, Thomas Emile.

For the licence as Midwife and Nursetender—

Crozier, Alice.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations were admitted Licentiates in Dentistry of the College at a meeting of the Board of Examiners on the 24th inst., viz.:—

Alexander, Henry J., Margaret-street.
Brameld, Clement N., Nottingham.
Carranza, Victor G., Matanza, Cuba.
Chalcraft, William H., Nottingham.
Cook, Stanley, Barnes.
Daish, William G., Ryde.
Dudley, Edmund L., Portsmouth.
King, Canham, New Cross-road.
McCall, John H., Leicester.
Newton, Frederick H., Cawley-road, N.E.
Nunn, Samuel W., Old Kent-road.
Pike, J. L. F. J., Dumfries.
Small, David M., Dundee.
Thorman, Frederick J., Stratford.
Weiss, W. G., Montague-place.

Two candidates were rejected.

The following were the questions submitted to the above gentlemen at the written examination, when they were required to answer at least one of the two questions both on Anatomy and Physiology, and on Surgery and Pathology, viz.:—Anatomy and Physiology: 1. From what sources does the liver receive its blood? and how does the bile find its way

into the intestines? 2. How is arterial blood distinguished from venous? and on what does the difference depend? Surgery and Pathology: 1. Define what is understood by "mumps," and state how you would distinguish this from other swellings of the face, both as regards the seat of the complaint and its signs and symptoms. 2. What means would you employ to arrest hæmorrhage from an incised wound of the tongue or palate?

The following were the questions on Dental Anatomy and Physiology and Dental Surgery; the candidates were required to answer at least two out of the three questions in both departments (at this examination patients were introduced as at the clinical examination for the fellowship):—Dental Anatomy and Physiology: 1. Describe specimens 1, 2, and 3 under the microscope. 2. Enumerate and describe the varieties of dentine in the teeth of man and the lower animals, and give examples. 3. What is meant by a "dental formula"? Give the typical mammalian dental formula and also that of man and of any other mammals which may occur to you. Which are the teeth usually absent in departures from the typical formula? Dental Surgery and Pathology: 1. Describe the symptoms and effects of phosphorus and mercury on the gums and alveoli. 2. Mention the principal irregularities of the permanent teeth; the causes, and treatment of them. 3. What are the most usual nervous affections having a dental origin? Mention the nerves which are respectively implicated in their production.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 19:—

Bateman, Alfred George, The Chesnuts, Canonbury.
Bowlby, Anthony Alfred, 75, Warrington-crescent.
Concricão, Philip de, Assistant-Surgeon I.M.S., Bombay.
Kersopp, Thomas, Hexham.
O'Dowd, John, Netherton, Dudley.
Tennant, William Drysdale, Kensington.

The following gentleman also on the same day passed his Primary Professional Examination:—

Breach, James Henry, King's College Hospital.

NAVAL, MILITARY, &c., APPOINTMENTS.

ADMIRALTY.—Royal Naval Artillery Volunteers, London Brigade: Edward Amphlett, M.A., M.B., F.R.C.S., to be Surgeon.

WAR OFFICE.—MEDICAL DEPARTMENT.—Surgeon-Major William Lydd Harding retires upon half-pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Frank Simpson retires upon permanent half-pay.

BIRTHS.

BARROW.—On June 11, at Woolwich, the wife of H. J. W. Barrow, M.R.C.S. Eng., Surgeon A.M.D., of a daughter.

DICKINSON.—On June 18, at High-street, Wandsworth, S.W., the wife of W. G. Dickinson, L.R.C.P., of a daughter.

DODSWORTH.—On June 22, at Arlington Park, Gunnersbury, the wife of F. C. Dodsworth, L.R.C.P. Lond., of a daughter.

EDWARDES.—On June 24, at Oakley-square, N.W., the wife of W. Whitfield Edwardes, M.R.C.S., L.S.A., of a son.

MEIKLEJOHN.—On June 15, at 16, Notting-hill-square, W., the wife of John W. S. Meiklejohn, M.D., F.L.S., Fleet-Surgeon H.M. Dockyard, Chatham, of a son.

MARRIAGES.

CROWE—HUGHES.—On June 17, at Worcester, George Wyndham Crowe, M.D., of Worcester, to Marion, sixth daughter of W. S. P. Hughes, Esq., of Northwick Hall, Worcester.

MACBETH—PERRY.—On June 17, at St. James's Church, Piccadilly, Surg.-Major H. M. Macbeth, L.R.C.S.I., A.M.D., to Lenney Elizabeth, only daughter of the late James Perry, Esq., of Rochford, Essex.

NORMAN—CRUICKSHANK.—On June 17, at Bath, George Newman, M.R.C.S., of 12, Brook-street, Bath, to Mary Louisa, daughter of George Cruickshank, Esq., of Coombe Down, Bath.

WILSON—BUSHE.—On June 10, at Southsea, John Wilson, M.A., M.D., R.N., to Florence Elizabeth, younger daughter of Capt. Gratton Bushe, late 48th Regiment.

DEATHS.

ABERCROMBY, JOHN J. M., M.R.C.S.E., at Putney, on June 17.

CHORLEY, MARMADUKE WILMER W., M.R.C.S., at Maghull, Liverpool, on June 21, in his 34th year.

COURTNEY, SYDNEY, F.R.C.S., formerly of Leatherhead, at Walberton, Sussex, on June 20, in his 75th year.

FOX, LUTHER OWEN, M.D., F.R.C.S., at Broughton, Winchester, on June 17, aged 67.

HEDLEY, GEORGE DIXON, M.D., at Sale, Gippsland, Australia, on March 14, aged 62.

HERSTED, HENRY, F.R.C.S., late of Speenhamland, Newbury, Berks, at 28, Henrietta-street, Bath, on June 12, aged 72.

TREHARNE, JOHN, M.B., C.M., B.Sc. Edin., at Bournemouth, on June 21, aged 32.

WIMBLE, FREDERICK, M.R.C.S., L.S.A., at the Rectory, East Malling, Kent, on June 19, aged 72.

WOOD, SAMUEL, F.R.C.S., F.S.A., at St. Mary's Court, Shrewsbury, on June 19, aged 67.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. Candidates must have a recognised medical or surgical qualification. Applications, with testimonials as to character and professional ability, to David Cannon, Secretary, on or before July 8.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Assistant-Physician. Candidates must be graduates in medicine of some recognised university, and Members of the Royal College of Physicians, London, or must become so within twelve months of their appointment. Applications to the Secretary on or before July 8.

INFIRMARY OF THE CITY OF LONDON UNION, BOW-ROAD.—Assistant Medical Officer and Dispenser. Candidates must be legally qualified to practise both medicine and surgery in England and Wales; they must be single or widowers without children; not less than twenty-five nor more than thirty-five years of age. Applications on forms to be obtained at the office, 61, Bartholomew-close, E.C., with testimonials, to Frederick William Crane, Clerk to the Guardians, on or before July 1.

WILTS COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be unmarried, duly qualified, and registered. Applications, stating age, and accompanied by not more than six recent testimonials, to Dr. Cooke, Wilts County Lunatic Asylum, Devizes, on or before July 26.

THE LATE DR. TILBURY FOX.—Some of our readers may be glad to know that an excellent *carte-de-visite* portrait of Dr. Tilbury Fox can be obtained from Barraud and Jerrard, of 96, Gloucester-place, Portman-square.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—Drs. Lyons, Grimshaw, and Finny (Registrar) have been attending the meetings of the Select Committee of the House of Commons on the Medical Bills now before Parliament as a deputation from the College.

GEOGRAPHICAL DISTRIBUTION OF DISEASE.—At the annual meeting of the Society of Arts, held on Wednesday last, the Council announced in their report that they had awarded a silver medal to Mr. Alfred Haviland for his paper on "The Distribution of Disease Geographically considered," remarking that this paper was noticeable as giving its author an opportunity of bringing before the Society a question in which he is our principal authority. The admirable series of maps projected by Mr. Haviland, and prepared under his directions, to show the topography of disease, are unique, and have rendered good service to medical science.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

THE CASE OF THOMAS MILLERCHIP.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you kindly acknowledge the following additional amounts sent since my last:—

H. Huddlestone, Esq., Ambleside, Westmoreland	£3	3	0
Mr. Adams, Bungay	0	10	6
Dr. Norman Kerr, London	1	1	0
P. L. M. O., Bromyard	1	1	0
Mr. Lennox Browne, London	1	1	0
A. E. Boulton, Esq., Horncastle	1	1	0

Mr. Millerchip was discharged from Warwick Gaol on the 6th, nine days before his term of sentence expired, no reason having been given by the authorities for his premature release. I am, &c.,

33, Dean-street, Soho, June 25. JOSEPH ROGERS.

P.S.—Mr. Millerchip, I regret to state, is now penniless, and has to begin the world afresh. Our appeal to the Poor-law Medical Service will shortly go out.

Mr. Williams.—The next preliminary or Arts examinations for the diplomas of Fellow and Member will take place some time in September. If you look occasionally through the advertisement columns in the *Medical Times and Gazette*, you will see the dates duly announced.

A Young Practitioner.—The usual proportion of rent to income calculated by the income-tax assessors is a fifth. So that £80 will represent rent, etc., in an income of £400.

F.R.C.S., Devonport.—Should the gentlemen mentioned by you obtain an equal number of votes, "the right of such candidates to election shall be determined by their seniority in standing as Fellows of the College." This by-law is explicit on the subject. Our professional "Vatis" says it is not likely to be put in action next Thursday.

Dens Sap.—The following are the lines to which you refer in "Much Ado about Nothing":—

"I pray thee, peace. I will be flesh and blood;
For there was never yet philosopher
That could endure the toothache patiently."

A Constant Reader, Leeds.—Apply to the War Office regarding a medical appointment with the British forces in Zululand.

Mr. Williams.—It is no fault of the Secretary of the College of Surgeons, who has sent to every Fellow of the College resident in the United Kingdom, whose address is known to him, the usual notices of the annual election. The fault is your own; and there are many like you, who remove without sending him notice, notwithstanding the request he makes every year to send correct addresses. Your suggestion to add "Surgeon," where there are so many Joneses, Davises, Williamses, Prices, etc., in every town in the principality, would give offence to some "Fellows." Where this was once done, the gentleman wrote angrily to Mr. Belfour to know whether he put "Surgeon" after Mr. Cæsar Hawkins, and he demanded as much respect being paid to him, "although only a Welshman"! The "Medical Directory" is not an *official* guide, consequently the Secretary of the College is not called on to consult its pages.

M.D.—The annual exhibition of preparations, etc., about to be added to the Museum of the College of Surgeons, is now on view in the theatre of that institution, and will well repay a visit. Doubtless these interesting exhibitions tend to induce members to enrich the Museum of the College, of which they are members, with sometimes most valuable additions.

COMMUNICATIONS have been received from—

Mr. T. H. McGorsty, Slane; The Honorary Secretary of the Parkes Museum of Hygiene, London; Mr. John Chatto, London; Mr. T. M. Stone, London; Mr. D. Colquhoun, London; Mr. Charles Wahab, London; Mr. J. Hopkins Walters, Reading; Dr. A. J. Wolfe, Glasgow; Messrs. Arnold and Sons, London; Messrs. Hopkinson and Cope, London; Dr. George Harley, London; Dr. John Williams, London; Mr. F. Wright, London; Mr. F. A. Macivor, Edinburgh; Dr. Ritchie, Edinburgh; Messrs. F. C. Calvert and Co., Manchester; Mr. Norman Porritt, Leeds; Registrar-General, Edinburgh; Dr. Joseph Rogers, London; Mr. Sampson Gamgee, Birmingham; Dr. R. Semple, London; Dr. Sparks, Dorchester; Mr. W. H. Crowther, Liverpool; The Registrar of Apothecaries' Hall, London; Dr. Fairmann, Hanley; Dr. Edmunds, South Hampstead; Dr. Walters, Reading.

BOOKS AND PAMPHLETS RECEIVED—

Report of the Metropolitan Board of Works for 1878—Cottages: How to Arrange and Build them, by a Sanitary Reformer—A. Moitessier, Éléments de Physique Optique—D. Federico Rubio, De la Circumcision—Dr. Rudolph Voltolini, Die Rhinoskopie und Pharyngoscopie—Alfred H. Allen, F.C.S., An Introduction to the Practice of Commercial Organic Analysis, vol. i.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medicinischen Wissenschaften—Gazette Hebdomadaire—Boston Medical and Surgical Journal—Philadelphia Medical Times—Révue Médicale Française et Etrangère—El Siglo Médico—Centralblatt für Gynäkologie—Index Medicus—Students' Journal and Hospital Gazette—American Practitioner—Canada Medical and Surgical Journal—Quarterly Journal of Inebriety.

APPOINTMENTS FOR THE WEEK.

June 28. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

30. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

July 1. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

2. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 1½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.

Obstetrical Society, 8 p.m. No specimens will be exhibited.—Adjourned Discussion on the Forceps.

3. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.

4. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 21, 1879.

BIRTHS.

Births of Boys, 1281; Girls, 1202; Total, 2483.
Average of 10 corresponding years 1869-78, 2195·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	685	631	1316
Average of the ten years 1869-78 ...	682·1	615·4	1297·5
Average corrected to increased population ...	...	...	1368
Deaths of people aged 80 and upwards ...	...	...	32

Note.—The births and deaths registered last week may be compared with the average numbers in the corresponding weeks of the ten years 1869-78 after raising the average by 7 per cent. for increase of population.

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa
West	561359	4	5	4	4	...	...	...	...	5
North ...	751729	3	36	13	...	6	...	3	...	1
Central ...	334369	...	18	2	...	5	...	1	...	1
East	639111	...	23	8	1	9	...	1	1	4
South	967692	5	22	11	5	11	...	2	...	4
Total	3254260	12	104	38	10	31	...	7	1	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·573 in.
Mean temperature	58·4°
Highest point of thermometer	70·8°
Lowest point of thermometer	48·7°
Mean dew-point temperature	53·2°
General direction of wind	S.W.
Whole amount of rain in the week	0·82 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 21, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1879.*	Persons to an Acre. (1879.)	Births Registered during the week ending June 21.	Deaths Registered during the week ending June 21.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3620868	48·0	2483	1316	70·8	48·7	58·4	14·66	0·82	2·08
Brighton	105608	44·9	54	33	70·1	51·8	58·4	14·66	1·00	2·54
Portsmouth ...	131821	29·4	83	29	...	...	...	...	...	...
Norwich	85222	11·4	33	36	71·0	51·0	59·4	14·66	0·17	0·43
Plymouth	74293	53·3	42	16	67·0	54·0	57·0	13·89	2·50	6·35
Bristol	209947	47·2	125	65	...	...	...	...	...	...
Wolverhampton ...	75100	22·1	50	25	70·5	46·3	56·0	13·33	0·62	1·57
Birmingham ...	388884	46·3	301	128	...	...	...	...	...	...
Leicester	125622	39·3	88	33	70·0	46·0	57·5	14·17	1·06	2·69
Nottingham ...	169396	17·0	100	40	74·2	44·4	58·7	14·83	0·80	2·03
Liverpool	538338	103·3	379	200	68·0	49·6	56·2	13·44	0·64	1·63
Manchester ...	361819	84·3	264	178	...	...	...	...	...	...
Salford	177849	34·4	137	65	...	...	...	...	...	...
Oldham	111318	23·9	73	24	...	...	...	...	...	...
Bradford	191046	26·5	130	74	70·3	46·8	57·4	14·11	0·47	1·19
Leeds	311860	14·5	222	92	71·0	46·0	57·8	14·34	0·55	1·40
Sheffield	297138	15·1	225	103	69·0	44·0	56·4	13·55	0·73	1·85
Hull	146347	40·3	138	61	73·0	45·0	57·6	14·23	0·65	1·65
Sunderland ...	114575	41·4	94	40	75·0	48·0	55·9	13·28	0·63	1·60
Newcastle-on-Tyne	146948	27·4	106	61	...	...	...	...	...	...
Edinburgh	226075	53·9	165	100	66·0	44·7	54·3	12·39	2·01	5·11
Glasgow	578156	95·8	396	218	67·0	49·3	57·0	13·89	1·22	3·10
Dublin	314666	31·3	224	238	70·9	44·3	57·9	14·39	1·16	2·91
Total of 23 Towns in United Kingdom	8502896	38·6	5912	3175	75·0	44·0	57·2	14·00	6·94	2·89

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·57 in. The highest reading was 29·88 in. at the beginning of the week, and the lowest 29·32 in. on Monday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1879 by the addition of eight years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. Salford, however, forms an exception to this rule, as the estimate is based upon the rate of increase of inhabited houses within the borough during the six years ending July 1, 1877. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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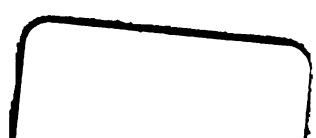
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